Minor Research Project on

"Public Expenditure in India under New Economic Policy Regime"

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Place – Devrukh

Date –

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1. Introduction and Methodology

All the government in the world have abandoned their face as a police today, the classical concept of minimum government against aggression of internal disorders, it has also to protect the community against disease, poverty and ignorance. The scope of the functions of the government widened after the great depression of thirties, especially after the publication of Keynes general theory. Today the government decides the way and the scope of its expenditure and then thinks upon its income to meet these expenses.

1.0 Public expenditure mean of intervention.

Experience all over the world has shown that governmental intervention in a considerable measure is very necessary for the fulfillment of various economic and social objectives. This intervention can take many forms. The government may itself undertake collective activities like national defense, public health, communication; production etc. expenditure incurred on all these activities affects the market mechanism directly or indirectly. The government can do this in order to bring out desired outcomes i.e. pre determined objectives.

With so many functions to perform, governments have become powerful agent of economic transformation today. Their need for finance has also increased many times over. With such increase the government functions have become all embracing.

2.0 Conflicts of different objectives.

Economic growth implies an increase in the size of national income in terms of rise in production in all the sectors of Economy. However this growth does not necessary implies the full employment in the economy if the rate of growth is lower than required for the same. On such situation the objective of full employment may remain a distant dream. Similarly, while alternating to accelerate the development process, inflationary spiral my be created which can endanger the price stability. This inflation may result in increasing the inequalities of income and wealth. Inflationary spiral may result in export being priced out in the international markets and imports being cheap. All this may land the economy in a balance of payments disequilibrium position, causing a drain on the short term capital and reserves of gold. Similarly more investment in industry and agriculture may result in starving the education, health and housing program of the government. Therefore, when the ends are many and varied and the means at the disposal of the government are limited. Some of the objectives are bound to be pushed to a lower position in the scheme of priorities. Actually all the economic and social objectives are important whether a country is developed or underdeveloped. But since equal attention cannot be paid to all the objectives it becomes necessary to select some of them for relatively greater emphasis.

During the post war period, there is a noticeable change in the objectives of government policies. The modern government have to aim at various types of objectives mostly going opposite directions. This gives rise to conflicts. A balance between the various objectives is very difficult to strike. The fiscal policy has somehow to perform this difficult task. In short, public finance has to gear itself to the needs of a developing economy.

3.0 Decision making process

There are many vital decisions which the state is best fitted to take on behalf of the individuals. But again it is the individuals who create the state. They elect their representatives to the legislative bodies. People's whishes are expressed through these elected representatives who take decisions which go to determine the role of the state in shaping the economic and social life of the people. The central government the state governments, union territories and various local bodies all hold their budget sessions every year for this purpose. An estimate of the income and expenditure of the government for the next financial year along with new tax proposals in the form of finance bill is presented to the representative of the individuals for discussion and approval. It is only after this bill is passed by the individuals representatives that the government gets the authority to spend the money. This system is followed in all the countries of the world irrespective of whether their economies are of capitalistic, communistic or mixed type.

4.0 Indian scenario -

We have in India a mixed type of economy. The role played by the state in shaping the economic and social life of the people is greater. in comparison to the role played by the state in capitalistic economies but at the same time, it is smaller in comparison to the role played by the state in communistic economies. In such situation the state has to play a positive economic role in the country. It has to enter the fields of production and distribution. It has to promote infrastructural facilities and has to create conditions favorable to a higher level of investment so that national and per capita income of the people can be improved continuously for all these reasons, during the first three decades of planning public sector was created and became dominant in India.

Although the public sector was conceived of as a senior partner is the process of economic development in India, the private sector was permitted to exist and supplement the efforts of the public sector within the overall framework laid down for the economy. In this regard the planning commission stated, "In a planned economy the distinction between the public and the private sector is one of relative emphasis. The two sectors are and must function as a part of a single organism."

The Industrial Policy Resolution 1956 gave the public sector a strategic role in the Indian economy. At that time the Indian private sector was starved of funds and of managerial ability and was incapable of undertaking risks involved in long - investments. Therefore the public sector was thought of as the engine for self - reliant economic growth to develop a sound agricultural and industrial base. Up to the Industrial policy of 1980 the private was restricted in many ways to flourish this public sector in India. During the first three decades the total expenditure of Central Government increased by 45.6 times. It was 530 Crores Rs. in 1950-51 which increased up to 24,170

Crores Rs. in 1980-81. During the same period the capital expenditure by confer increased by 53.5 times which is form 180 Crores to 9,630 Crores.

In 1980 government attitudes towards the economy and the private sector in particular started to changes. Under Mrs. Gandhi and then Rajiv, pro-business reforms were set in motion, with liberalized access for domestic firms to capital imports, technology and foreign exchange, and the gradual relaxation of industrial licensing.[1] Liberal policy was started with the announcement of industrial policy resolution 1980 The decade of 1980 was under the deem light of forthcoming economic reforms of 1991. Total expenditure of central government was 1.05.310 Crores Rs. in1990-91. It was 4.4time increase over 1980-81 expenditure by centre. in 1990-91 the capital expenditure was 31.800 Crores Rs. It was 3.3 times increase during 1980s decade.

5.0 LPG Model of development.

In 1991 the then finance minister Dr.Manmohan sing introduced LPG model of development. it intended to charter a new strategy with emphasis on liberalization, privatization and globalization. several major changes at the domestic level were introduced in this model. it emphasizes a bigger role for the private sector. it envisages a much larger quantum of foreign direct investment to supplement growth process. it aims at a strategy of export led growth as against import substitution

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1.Dr. Raghuram G. Rajan (2006)

practiced earlier. it aims at reducing the role of the state. significantly and thus abandons planning fundamentalism in favour of more liberal and market driven pattern of development.[2]

Under the LPG strategy, areas reserved for the public sector were opened to private sector. government started disinvestment of PSUs and proceeds were used to reduce fiscal deficits. Government permitted the private sector to set up industrial units without taking a license. It facilitate direct foreign investments in high Priority areas. In order to improve the performance of PSUs, greater autonomy was given. The economy was also opened to other countries to encourage more exports.

The implementation of LPG strategy has brought structural changes in the economy. But it is criticized on many grounds. This model is largely concentrating on the corporate sector which accounts for only 10 percent of GDP and by passing agriculture and agro based industrial which are a major source of generation of employment for the masses. The model is emphasizing on a capital intensive pattern of development and there are serous apprehensions about its employment potential.

The UPG model or new economic policy have reshaped the role of government in India. It has minimized the scope for the state intervention in the market. At the same time being 260

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millions of people below poverty line its responsibility regarding to welfare of the society is increased Expenditure done by the government brings out the actual participation of in various economic processes in the country. Therefore the study of public expenditure darling this post reform period can reveal the changing role of the government during the same.

6.0 Need for the study

No government can afford to take decisions at random. Especially the decisions regarding to taxation, borrowings, expenditure and other fiscal responsibilities are inter connected. Therefore all policies and decisions must form a part of its overall set of objectives. In India after 1991 the guiding forces behind the set of objectives have been changed at large extent. public expenditure night have experienced this change but the area remain more or less unexplored. The topic related to public expenditure is chosen to study and to bring out the extension and distribution of public expenditure during post reform period.

7.0 Title of the study

"Public Expenditure in India Under New Economic Policy Regime" is the title accepted for this study. It reveals the specific time considered and the objects of the study.

8.0 Objectives of the study

1. To examine the trends in public expenditure after 1991.
2. To examine the relationship between public expenditure and GDP during the said period.
3. To examine the secular and time pattern growth of public expenditure during the post reform period.
4. To examine the growth of expenditure for important sub heads.
5. To study the implications of public expenditure during the said period.
6. To suggest the measurement for quality improvement in public expenditure.

9.0 Formulation of Hypothesis.

In order to examine the nature of public expenditure during post reform period the following hypothesis are formulated and accepted to test with the data.

1. In post reform period the public expenditure in India is growing at a large extend besides its partial withdrawing from production process.
2. During the same period revenue expenditure and non development expenditure is growing faster than capital expenditure and development expenditure respectively.
3. Expenditure on debt-servicing and defense are still two major sub-component leading to fast growth in general services expenditure in India during reform period.
4. After the implementation of economic reforms the responsibility towards social welfare is increasing in

order to meet this responsibility the expenditure on social services is increasing during post reform period.

5. Expenditure incurred on economic service directly relates with the growth of the economy. During the reform period sufficiently moderate growth rate is achieved for this the expenditure on economic services is increased during post - reform period.

10.0 Methodology of the Study

10.1 Data Collection.

The total research work is library based. Secondary data collection method is applied for this study. The books and articles regarding to the study topic are assessed and studied for general consideration centre for Monitoring Indian Economy (CMIE) reports and special features on public finance by CMIE as well as handbook of statistics RBI are the major sources for data on public expenditure are used.

10.2 Methodology of Analysis

The data collected from the above trusted sources, is analyzed in three stages as follow

a) At first stage the ratios and percentages are calculated to bring out the trends in expenditure Percentage of public expenditure with GDP is calculated which reveals the governments participation in the economy.

Total expenditure is examined as spllited into revenue expenditure and capital expenditure, planned expenditure and non-developmental expenditure, in order to bring out internal trends. It is also studied within classified categories as general services expenditure, social services expenditure and economic services expenditure. One sub-component from each category is selected for in detail study. Selection of the sub-component is made on the basis either of those sub-components having major allocated share in total expenditure or those having unusual trends within.

In order to find out the trends, three yearly averages were calculated with all the major classified categories. In order to examine the internal trends within each category, the percentage of sub-components with total expenditure is calculated. And for detailed study of selected sub-components, the percentage with its classified category is calculated.

b) Calculation of trend values.

With the help of least square method, the trend values are calculated to find out trends for this purpose the following simple regression model is considered.

$$Y = a + bX$$

Where y gives trend value for the year X a and b are parameters a is an average value this model can also be used for forecasting purpose.

c) Log-lin Model to calculated growth rate.

Long – Linear model is used to measure growth rate and compound growth rate in a time series.

Following compound interest formula is considered as simple basic equation.

$$Y_t = y_0 + (1 + r)^t \qquad \text{\_\_\_\_\_\_\_\_\_\_\_\_} \quad (1)$$

Where r is the compound growth rate of Y By taking natural logarithm of (1) we get

$$\ln Y_t = \ln Y_0 + T \ln (1 + r)$$

If we put

$$\ln Y_0 = \beta_1 \quad \text{and}$$

$$\ln (1+r) = \beta_2$$

We get

$$\ln Y_t = \beta_1 + \beta_2 t$$

By adding the disturbance term. We have

$$\ln Y_t = \beta_1 + \beta_2 t + u_t \qquad \text{\_\_\_\_\_\_\_\_\_\_\_\_} \quad (2)$$

In this model parameters β_1 and β_2 are linear, regress and is logarithm y and regressor is t (Time)

This model is rgressand in logarithmic there fore it is called Log-lin model.

Here β_2 measures constant proportional or relative change in Y for a given absolute change in the value of t

$$\text{i.e. } \beta_2 = \frac{\text{relative change in y}}{\text{relative change in t}}$$

In this model 100 times β_2 gives the growth rate in Y. and it is known as semi elasticity of Y with respect of X.

β_2 here gives instantaneous (at a point in time) rate of growth.

Compound rate of growth.

$$\beta_2 = \ln (1+r)$$

.: Antilog of β_2 = 1 +r

.: r = Antilog β – 1

i.e. b taking antilog of estimated β_2 and subtracting 1(one) from it, and multiplying the difference by 100 wet get compound rate of growth (over a period of time rate)

The role of β_1

Since B_1 is the log of the figure which is prior figure of the beginning of the data we can obtain the prior one figure of the data by taking its antilog

Log- Lin model is used to ejaculate instantaneous and compound growth rate in public expenditure in this study.

11.0 Scope of the Study.

India has federal governing system Central, State and local Governments are three phases working at three designated levels. Actually expenditure done by this three governments is considered as public expenditure. But this study includes the statistics of expenditure of Central Government only. To avoid complexity, the figures & expenditure by state and local governments are excluded from the study.

The process of reforming economy started in India from 1991 and the same is going on for last sixteen years. Here in this study the terms post-reform period, during reform period, last fifteen years of reforms indicate the period from 1991-92 to 2005-06.

Central government expenditure on general services, social services and economic services is considered only in this study. The expenditure other than those services i.e. loans and aid given to states and UTS, is not a part of this study. For the data accepted for the study, actual head wise expenditure may not add up to total expenditure. This is because expenditure of few heads is not net of receipts/ recoveries. Normally, Central government expenditure excludes receipts / recoveries from various heads e.g. defense and postal services.

12.0 Limitations of the Study

1) This study considers only 1991 to 2006 period to the findings, implications are limited up to that period only.

2) Expenditure by central government is analyzed here. IN order to gauge the effects of public expenditure on any economy it is necessary to analyze the expenditure by the total federal system. Therefore this study has limited scope in this sense.

3) This study could not cover all the expenditure activities of central government. If limits itself on this ground also.

13.0 Chapter Scheme.

This study is presented in following chapter scheme.

Chapter I – Introduction and Methodology.

Chapter II – Review of Concepts and Theories in Public Expenditure.

Chapter III – Review of Recent Studies.

Chapter IV – Data Analysis and Interpretation of Public Expenditure in India.

Chapter V – Findings, Suggestions and conclusions.

2. Review of Concepts and Theories in Public Expenditure

1.0 Introduction

The concept of ruler or State or Government has gone through many changes from ages. This concept is as old as the concept of 'society'. Besides ruling the society, the state has many responsibilities to perform to fulfill the needs of the society. The basic needs of the community has remained more or less same but the ways to fulfill them has gone through many variations.

In early days of capitalism it was widely believed that private sector is always more efficient than public one. It therefore provided a theoretical basis for *laissez faire*. By implication almost all economic decisions were to be guided by the "invisible hand" of market forces of demand and supply. It was, therefore, considered best that the public sector should help and supplement private sector but never replace it.

In due course of time the *laissez faire* policy was abandoned and the sate was expected to work for its maximum advantage. Under the influence of these expectations, The State expanded its activities in various directions. The concept of welfare state has now gained roots and almost every state swears by it. Welfare activities form a substantial portion of what every state does these days.. Beside its welfare activities it has broad bearing on the level and allocation of resource use and the level of economic activity. But here we will not deal with the entire range of economic policy but review that part which operates through the expenditure measure of public budget.

2.0 Review of concepts in Public Expenditure.

2.1 Public Expenditure defined:

Experience over all the countries of the world has shown that Government intervention, in a considerable measure, is very necessary for the fulfillment of economic and social objectives, Government intervention can take many forms. By spending on purchase and transfers it interferes in the market directly and indirectly. The Government spending here is called as a public expenditure.

We have considered the following two definitions of public expenditure which gives a clear idea about the concept.

Encyclopedic Dictionary of Economics [3]

"Broadly expenditures which are by local and national government agencies as distinct form those of private individuals organizations of firms that and local either in protecting the citizens or in promoting their economic and social welfare".

Andley and Sundharam [4]

"Public expenditure refers to the expenses of the public authorities – central, state and local governments – either in protecting the citizens or in promoting their economic and social welfare."

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3. Encyclopedic Dictionary of Economics, Edited By G.C. Pande, D.M. Mithami
4. Andley and Sundharam

The mentioned definitions convey that the expenditure which is done by different layers of governments to enhance the economic and social welfare of the community is a public expenditure. It refers to expenses which a government incurs for i) its own maintenance ii) society and the economy, and iii) helping other countries. In practice however, with expanding state activities, it is becoming, increasingly difficult to separate the portion of public expenditure meant for the maintenance of the government itself from the total.

2.2 Kinds of Public Expenditure :

Conventionally public expenditure is classified into various economic categories. Classification may be in sense of accounting which enable state executive to maintain an effective control and check over public expenditure and possible leakages and wastages, diversions and misappropriation. Classification is good for auditing and for safeguarding against misappropriation but it doesn't help in understanding the effects of public expenditure on economy. Classification as obligatory expenditure and optional expenditure can be done but it can only explain the constraints under which the government's budgetary has to work.

The classification of public expenditure should be useful and effective. Only through such classification, the economic effects of various State activities can be gauged and proper policies formulated. The following classifications of public expenditure indicate an area of possible effects on the economy.

2.3 Productive and Unproductive Expenditure

The public expenditure which helps in improving the productive capacity of the economy is a productive expenditure. On the other hand the expenditure by government which is only for consumption purpose is an unproductive expenditure. Classical economist believed that only those public expenditures are productive which are incurred to create and maintain social overheads. By extension of this logic it will follow that only those public expenditures are productive which creates some tangible assets in the economy and enable it to produce more in the future. According to some modern economists public expenditure which is partially or fully, self-liquidating is productive expenditure. In this case the public expenditure which adds the income-yielding tangible assets of the government, including public enterprises of commercial type, is a productive public expenditure and the remaining part is a unproductive public expenditure.

Above analytical framework is opposed on many grounds. There are many assets which do not yield an income to the government, but are necessary for the productive efficiency of the economy. Parks, water-works and similar goods and services indirectly add to the productive efficiency of the economy. Those helps in increasing national product and authority will be able to collect, even without raising the tax rates, an additional revenue. Expenditure on education, training, health, better living condition, better labour relations dosen't create any tangible asset but it add the productive power of the economy. Expenditure on defence and research don't add any tangible asset but directly or indirectly enhance the economic productivity. Therefore, a precise distinction between productive and unproductive is not an easy task. Basically we may take the position that any wasteful and avoidable expenditure is unproductive, while the necessary and relevant expenditure is productive.

2.4 Transfer and Non-Transfer Expenditure.

Prof. A. C. Pigou favoured the classification of public expenditure as transfer and non-transfer expenditure. A transfer expenditure is a payment without any exchange of goods and services by State. Interest payments, old-age pensions and unemployment benefits are the examples of transfer payments. In these cases, the government is simply transferring the right or claim to the use of goods and services to certain sections of the society. On the contrary, the government purchases of goods and services in exchange are non-transfer payments.

In case of transfer payments, the beneficiaries are to decide about the use of the resources but in case of non-transfers payments the state uses the resources straightway. Such a use by the state may be consumption purpose or investment purpose. Expenditures on defence, education, health etc., are all of non-transfer payments. While incurring non-transfer payments, the government does not necessarily purchase the goods and services at market prices. It may purchases those things at concessional rates or at non-economic rates.

2.5 Capital and Revenue Expenditure.

According to Indian Constitution the Government of India has to distinguish the expenditure on capital account from other expenditure in the budget. The budget is split in to capital account and revenue account. Capital expenditure is that expenditure which leads to variation in physical assets of the Government. In contrast, revenue expenditure is that expenditure which incurred to keep and maintenance of physical assets, beside the cost of administration, police and judiciary also belong to revenue account.

2.6 Plan and Non-Plan Expenditure

Most of the countries of the world have chosen the way of planning to meet the long-term development objectives. Since independence India is incurring expenditure incurred on these planned projects. This is plan expenditure of the government. Beside this the government has to spend to meet the emergency needs which can not be a part of planning. Such expenditure is called as non-plan expenditure. Plan and non-plan, both the category are further divided into capital and revenue expenditure.

2.7 Developmental and Non-Developmental Expenditure

The public expenditure which incurred on development project (or work) by the State is a developmental expenditure. This public expenditure adds to the development process of the economy. Expenditure on infrastructure is basically developmental expenditure. Besides this the state has to spend for the maintenance of the project and to run the government's machinery is a non-developmental expenditure.

3.0 Criterion for public expenditure.

In the standard economic literature on Public Finance there are four canons of public expenditure which every government should exercise while arranging its expenditure. These cannons are the broad generalization and detailed guidelines for each specific case. They reflect the philosophy of a judicious use of public funds with associate legal property. These cannon are as follows-

1) **Cannon of Economy-**

The cannon of economy implies that wastage money or resources should be avoided in public expenditure. Two things can raise wastage of money. One is excess expenditure than required one and other is delay in formulating plans, sanctioning or in execution. The expenditure should involve no wastage of resources means that the government should see that hard earned money of tax payers is not spent in excess manner and on wasteful projects. It is also essential to check duplication of expenditure to avoid wastage.

Delay should not be leading to rise in public expenditure process because it involves loss of some benefits. On account of delays when prices are rising, costs themselves go up.

The cannon of economy also implies that the government expenditure should not produce any unfavourable effect on production and distribution.

2) **Cannon of Sanction -**

No public expenditure should be incurred without proper authority. The cannon of sanction implies that each public expenditure must be sanctioned by proper authority and must be used in the same way. The reason for this is to ensure that the public money is put to best use and not to be misused. In democratic country, like India; the government presents its annual budget before the legislature and no expenditure can be incurred unless the budget has been voted and sanctioned by the legislature. According to cannon of sanction, every government expenditure should be audited compulsorily so that there remains no possibility of any improper expenditure.

3) **Cannon of Benefit -**

Public expenditure should be incurred or so regulated on the various items, so as to secure maximum benefit for the society as a whole. In order to attain this maximum benefit the government should push expenditure in all directions up to that level which equalize the marginal benefit in each case. According to this principal, it is essential for the government to incure its expenditure not for any particular individual or a group but for the masses or the people. It is only by doing so; the public expenditure can promote the maximum social benefit. This cannon implies that the government can curb income inequalities through its public expenditure.

The cannon of maximum social benefit demands to incur the public expenditure for the benefit of the entire community. It may sometime become necessary to incur expenditure for the benefit of a particular section or group of people for maximum social welfare. For example if the state incurs expenditure for the development of the backward area, it will help to promote the general welfare of the entire country.

4) Cannon of Surplus -

Surplus means there should be an excess income over expenditure. Thus this in not only the cannon of expenditure but also of income .This cannon suggest that the government should raise enough revenue to meet its expenditure and opposes deficit or balanced budget. According to it, the government should not run into a debt. Since it may not be possible to avoid some deficits, it would be better if the general effort is directed at achieving a moderate surplus. Such moderate surpluses during some years will take care of reasonable but unavoidable deficits during other years.

However this cannon no longer finds favour with the fiscal authorities or economists in general. Today every government prefers deficit budget. In order to meet increasing expenditure, government has to borrow. It has to fulfill the wide spreaded public wants.

Besides cannon of surplus, the other three canons of expenditure are mostly followed all over the world to efficiently meet the needs of the societies. In order to meet these objectives the techniques like those of program and performance budgeting and zero base budgeting have been developed recently.

4.0 Performance and Programme Budgeting System (PPBS)

The PPBS is an outcome of efforts of the government for improving the formulation and execution of its expenditure policy at executive (and not legislative) level. It comprises rules of managerial efficiency and flexibility in the context of this policy. As the Hoover commission in the USA stated, a performance budget is based upon activities, functions and projects of the government. When budgeting covers both the above aspects, it may be termed performance and Programme Budgeting (PPB) or Performance and Programme Budgeting System (PPBS).

Technically, the performance budgeting and programme budgeting are similar but not identical with each other.

Programme budgeting consists of three stages.

i) Defining the objectives of various fiscal measures and policies, and identifying the programmes out of which a selection is to be made.

ii) Use of cost-benefit approach for assessing the comparative ranking of the identified programmes and subject to the availability of resources, and selecting the best.

iii) The third stage is 'projective', that is, current programmes and policies are related to their future benefits, problems, costs and other developments.

Accordingly, an effective implementation of a programme budget should have time schedule for financial flows and other activities together with expected achievements of targets.

On the other hand, a performance budget is to access accomplishments and failures of a programme budget. In nutshell PPBS can be an important aid in achieving better results at lower cost.

In India, PPBS was introduced in all ministries and departments in 1975-76. But critics claim that PPBS techniques, as applied in India, are still quite poor.

5.0 Zero-Base Budgeting (ZBB)

Zero-Base Budgeting (ZBB) was first tried by Mr. Jimmy Carter in 1973 when he was the Governor of Georgia. It is an innovative technique to guard against wastage in public expenditure. It is method which is sought to be transplanted from the commercial world. The management of a commercial enterprise, in an effort to maximize its profitability, should be interested in a detailed investigation of each item of expenditure and see whether it is really needed, or whether it should be revised or even totally deleted.

In ZBB each section of the enterprise is to start with an assumed position of its own non-existence and compare with alternative level of its operation with corresponding budgetary provisions. If a section is not able to justify its own existence, it would be closed down. And if it's existence is justified, the optimum level of its operations and the corresponding budgetary provisions have also be defended. In other words in ZBB no section of business is supposed to be essential.

India also thought of adopting this line of thinking, but in very guarded and uncertain manner.

6.0 Effects of Public Expenditure

Government sector is the part of the economy and it should be treated as such. Just as the other different sectors of economy, government sector is also inter-linked. Interdependent and influences others. But there is one major difference is that private and other than government sectors are guided by the market mechanism, while the government sector can be used by the authorities to bring certain changes in the economy. The government can violate the working laws of market up to certain limits in order to bring out desired changes. Public expenditure is one of the important means of directing the working of the rest of the economy. The relationship between the government sector and rest of the economy spells out different possible effects of public expenditure. These effects can be discussed as follows.

1) Public Expenditure and Economic Stabilization-

In free market mechanism or in capitalism, economic fluctuations are inevitable, is a well-know fact now. Due to this reason that, with the development of capitalism, free enterprises economies experienced ever stronger trade cycles. Since then the need to use some effective anticyclical measures was recognized. Keynes diagnosis of the Great Depression of the 1930's was the deficiency of effective demand. And it was due to a low marginal propensity to consume coupled with a low marginal efficiency of investment. To overcome this situation he prescribed a continuous injection of additional purchasing power in the market through direct public investment. This direct investment was a part of public expenditure.

During depression public expenditure directly adds to the effective demand in the market and generates a high value multiplier by distributing income to the population which have a high marginal propensity to consume. The addition to demand by such population will stimulate investment activity and through all around increase in demand the depression can be overcome. Keynes' prescription is basically directed towards a state of depression but this argument can be extended to cure an inflationary situation. During a boom, the need is to curb extra demand. This may be done through reducing public expenditure while maintaining the same amount of taxation or borrowing.

It must be keep in mind that the use of public expenditure as an anticyclical weapon needs the existence of sensitive market mechanism, where, through the free working of input-output relationship between different industries, the change starting in one industry spreads to the rest of the economy. Underdeveloped countries suffer from the greater rigidities in the market thatswhy public expenditure as a general weapon against economic instability has only a limited use there.

2) Public Expenditure and Production-

In order to attain higher level of productions the state can use public expenditure as a tool. In case of developed economy which is suffering from deficiency of effective demand, public expenditure can help to add it directly and, thus generate conditions favourable for the market forces to push up production. But the technique of increasing production through increasing demand becomes ineffective once the level of full employment is reached. When the demand is pushed beyond full employment, it will only add to the inflationary pressures.

An underdeveloped economy is characterised by a low level of savings and investment activity. It has also shortage of social overheads, skilled labour, capital equipment and machinery. In such situation public expenditure can be directly used to create and maintain social overheads. It can also be used to enhance human skills through education and training. In case of regional disparities, various tax concessions and credit facilities are being provided for setting up industries in the backward areas. In such cases public expenditure can be used to build up infrastructure and to give subsides for increasing their profitability. Thus the authorities can add to the process of capital accumulation.

Public expenditure can be used to create demand for various products and thus stimulate the production in the economy. Public sector investments can be specifically directed to create particular supplies and facilities, which form important and necessary inputs for other industries. Imports of essential raw materials can be arranged and special labour skills can be utilized as a means to remove numerous inequalities.

3) Public Expenditure and Economic Growth.

The above discussed factors also point out the role of public expenditure in economic growth. In developed countries, through economic stabilisation, stimulation of investment activity, public expenditure can maintain a smooth rate of growth. In an underdeveloped country, public expenditure has an active role to play in reducing, regional disparities, developing social overheads, creation of infrastructure, education and training, growth of capital goods industries, research and development etc.

Public expenditure can affect the pace of economic growth by encouraging the will and capacity of the people to work, save and invest. An important way in which public expenditure can accelerate the pace of economic growth is by narrowing down the difference between social and private marginal productivity of certain investments. Here, public expenditure can be used to provide subsidies for those investments which are commercially non-viable but helpful for economic growth. Subsidies can also be used to promote import substitution.

It is to be noted that, the public expenditure is only a part of over-all economic policy that a country may be adopting. Taxation, licensing and various policy instruments may aid public expenditure in attaining different objectives.

4) Public Expenditure and Distribution

Inequalities of income and wealth are developed in free market mechanism. Those are widened through the institution of private property and inheritance with the passage of time at the next stage, these disparities not only spell a social and economic injustice, and they also distort production and employment patterns.

Welfare considerations of public expenditure favour an equitable distribution of income and wealth. The purpose of an economic policy should be to contribute towards achieving the maximum social benefits. Lerner has shown that even if we do not know the exact way in which marginal utility of income falls with a rise in income and even if we can't have inter-personal comparisons of utility, still a shift towards equality would probably add to the aggregate satisfaction of the community. This shift towards equality can be achieved through various forms of public expenditure especially those which are meant to help the poorer sections of the society.

Thus the state can use public expenditure to attain its goals. It is the tool which helps the government to reach stabilization, to enhance the production, to achieve the growth and to spell out economic and social justice for the sake of society.

7.0 Review of Theories in Public Expenditure

Public expenditure has increased rapidly during the last two centuries in almost every state. In spite of its growing role and importance in national economies, the public expenditure remains relatively unexplored. The economists have generally concentrated their attention on the theory of taxation. The theory of public expenditure has been more or less confined to that of generalities in terms of the effects of public expenditure on employment and prices etc. Lately this deficiency is removed by various studies.

Some of the well-known theories of increasing public expenditure are discussed as below

7.1 Wagner's law of Increasing State Activities

Adolph Wagner (1835-1917), a German economist, based his "Law of Increasing State Activities" on historical facts, primarily of Germany. According to Wagner, there are inherent tendencies for the activities of different layers of a government to increase both intensively and extensively. There is a functional relationship between the growth of an economy and government activities with the result that the government sector grows faster than the economy.[5]

Wagner based this generalization on two considerations[6]

a) The income elasticity of demand for services provided by the government are greater than unity.

b) During the course of economic development, the public sector constantly encroaches upon the private sector.

In trying to demonstrate the first consideration Wagner divided Government expenditures in two types: those dealing with justice and power functions (internal and external security) and those dealing with cultural and welfare functions (socio-cultural and economic expenditure). Concerning the justice and power functions, Wagner argued that higher levels of economic developments increase the strains of living and induce higher criminality. Similarly on an inter-national level with development trade and legal relations becomes complicated, in turn military forces have to assume preventive role which require large standing army. In order to tackle higher criminality and to maintain larger standing army, the government requires to spend more concerning the central and welfare functions. Wagner stated that increasingly larger expenditures on education and public health are needed with higher per-capita national product: the former because higher education is required for greater productivity the latter because greater urbanization accompanying economic development creates greater public health problems.

About the second consideration (Public Sector encroaching the private sector) Wagner argued that the encroachment of public sector is (a) due to consolidation of state powers and (b) due to break down in the market mechanism in producing certain goods and services which brings about state intervention.

5.C. Lowell Harris , "Public Finance" (1958) quoted by H.L. Bhatia "Public finance " 23/e p.p. 218-219.

6. Frederic L.P. – quoted by Kaipa N. Reddy – "Growth of public Expenditure in India – p.p.2

Wagner's law has many limitations in itself. First of all the government is not a monolithic entity.[7] It comprises a number of organs and associated institutions. Therefore the government decision making has become a complex phenomenon and has multifarious tendencies to increase public expenditure. Many economists have checked the existence of this law with different economies. Many of them don't find support for this law. Therefore 'Musgrave (1969), Gupta (1968) and Gandhi (1971) suggest that the traditional interpretation of Wagner's hypothesis does not hold over all ranges of income and that it only applies to countries in the middle range of development.[8] Another thing is to be noted that Wagner's laws concerns only with the secular trend of public expenditure. It does not take into account the other aspect of public expenditure such as the time patterns of expenditure growth[9]

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7. Ibid , p.2

8. Soumaya M. Tohamy (2005) – 'Does Wagner's Law Hold for Middle Eastern Countries ? Finance Public/ Finances publiques p.p.103

9. Kaipa N. Reddy – p.5

7.2 Wiseman-Peacock Hypothesis

The second thesis dealing with growth of public expenditure was put forth by Jack Wiseman and Allen T. Peacock in their study of public expenditure in UK for the period 1890-1955. At the outset of their study they point out that they do not fully accept the approach of Wagner as it concerns with the secular growth of expenditure. It does not increase in a smooth and continuous manner, but in jerks or step like fashion. Peacock-Wiseman acknowledge the influences to which Wagner directs attention, but they do not regard them as inevitably causing expenditures to grow faster than G.N.P. in all societies or at all times.

When the public expenditure increases the present revenue becomes quite inadequate. In this situation there may be a persistent divergence between ideas about desirable public spending and ideas about the limits of taxation. This divergence may be narrowed by large scale social disturbances like major wars. Such disturbances may create shifting public revenue and expenditure to a new level and it is a **'displacement effect'**.

The inadequacy of revenue compared to required level of public expenditure creates an **'inspection effect'**. The government and the taxpayers review the revenue position and need to find a solution of the important problems that have come up and agree to the required adjustments to finance the increased expenditure.

Alongside the displacement effect, there is another influence called, the **'concentration processes.'** The public expenditure and revenue get stabilized at a new level till another disturbance occurs to cause a displacement effect. Each major disturbance leads to the government assuming a larger proportion of the total national income activity that is **'concentration effect'**. This effect or process also refers to the apparent tendency for central government economic activity to go faster than that of the state and local level governments.

The approach of Peacock and Wiseman is novel and throws significant light on the probability of expenditure growth at various levels of crisis and thereafter. But it is difficult to agree with all observations, when applied to different countries. Especially in case of a colonial country where urge of the colony to meet the greed and desire of the rulers to lengthen their rule, works in opposite directions[10].

7.3 Pure theory of public expenditure

It is very difficult to handle the theory of public expenditure in its pure form when it comes to the practical aspects of the problem[11]. It may be discussed in the context of the range of the

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10 Kaipa N. reddy P.8.

11 H.L. Bhatia – Public finance, 23/9, p.p.230

public expenditure and or in terms of the division of a given amount of it in to different items. Traditionally the theory did not catch much attention due to the acceptance of philosophy of *laissez-faire*. However, with the advent of welfare economics the role of the state expanded and theory started attracting increasing attention.

The theory tried to address the usefulness of public expenditure for the society. This involved the steps identifying the restrictions upon the achievement of the objectives of public expenditure. Analysts have developed mathematical model for deriving various rules of public expenditure. Such models are developed by Frisch, Tinbergen an Theil. The abstract theory of public goods and public expenditure recognized that the conventional theory of value breaks down in the area of public expenditure. Wicksell, Lindahl and others and in advanced stage Samuelson, Musgrave and other economists developed the mathematical models and gave abstract treatment to the theory.

The unsolved problem of public expenditure theory is the specification of discovery of true preferences of the society to allocate the expenditure according to the needs of the society. Analysts have tried to solve this problem through devising some kind of voting mechanism or revealing the preference by members of society. But many approaches ignore the fact that expressing a preference implies a corresponding ability and willingness to a pay tax for it and it would conceal true needs and preferences of the society. This is because a capacity to pay for a service is not the same thing as the need to have it.

There are some additional difficulties to measure the true preference, like supply decisions, can not remain in complete conformity with preferences, many members of the society themselves are not sure of their preferences, being a risk averter a typical individual would prefer to settle for something which is somewhat less valuable but more certain and even if all these difficulties are ignored, the revealed voting pattern may give contradictory results.

The range of state activities is widening and is no longer confined to any pure public good[12]. Now, the governments' activities are increasingly expanded towards distributional, welfare, planning, growth, and other areas. They are expanding the supply of merit goods and forcing their consumption upon the society. Public debts are also being used as a policy tool in many fields. And, therefore, it is difficult to formulate the public expenditure theory in its pure form.

Summary:

In this chapter attempt is made to review the basic concepts of public expenditure which is nothing but the expenditure incurred by the government in order to achieve the welfare of its society. For convenient of analysis the public expenditure is classified in various groups. But the classification should be in the way from which the economic effects of various state activities can be gauged and proper policy can be

12 ibid – p. 229.

formulated. There are again four cannons of public expenditureas detailed guidelines for each specific case. By following these canons the efficiency and quality of public expenditure can be improved. In order to meet these objectives the techniques like Programme and Performance Budgeting system (PPBS) and Zero Base Budgeting (ZBB) are recently developed and followed in many countries. The level of public expenditure in the economy affects the economic stabilisation, production, economic growth and distribution of income. During the east two centuries though the public expenditure is increasing all over the world but the topic remains less explored. Of late two theories regarding to growth of public expenditure have been put forward. Wagner's law of Increasing state Activities and the theory by Peacock- Wiseman. The former explains the Secular growth in public expenditure while later explains the time pattern growth in it. From the review it is found that Public expenditure is a multifaceted concept. It's range differs from effects, division and increase. The in-depth analysis of public expenditure shows complexity of the concepts. As a result the concepts and issues pertaining to public expenditure are still being subjected to intensive research in national and international institutions.

3. Review of Recent Studies.

In order to obtain an idea about the current trends in literature regarding to public expenditure recently published articles are surveyed. The studies cover all the major aspects of public expenditure in India and abroad. The methodology adopted and the major observations of these studies are presented in this chapter.

In the literature on public Finance the Wagner's hypothesis has been subjected to extensive empirical investigation for various countries. While some of the empirical studies have supported the hypothesis, an equal number of them have invalidated it. Pravakar Sahoo (2001) examines Wgner's hypothesis for India within the framework of Casusality, Cointegration and Error correction mechanism (ECM) using advanced unit root test for the period 1970-71 to 1998-99. Identifying the structural breaks in different time periods, the study finds support for long run equilibrium relationship between public expenditure and economic growth.

The study by Sahoo deals with only two variables Public Expenditure and Gross Domestic Product which are expressed in real terms. It validates both Wagner's hypothesis in the Indian case and simultaneously supports the Keynesian theory that public expenditure leads to economic growth. However, the ECM results in per capita term support only Wagner's hypothesis for India. Overall the findings of this paper show strong evidence for the reference of Wagner's hypothesis for India stating that economic growth is a causative factor for increase in government expenditure.

Abizadeh and Gray (1985) used government spending and conclude that Wagners law holds for developing countries, but not for poor or less developed countries.

Soumaya M. Tohamy (2005) tested Wagner's law for Middle Eastern countries using IMF country GDP, government expenditure and consumption data.

The traditional interpretation of Wagner's law predicts an expansion of state spending at a rate that exceeds the rate of growth of economic activity measured by income. Tohamy has conclude that state spending does not increase with income for Middle Eastern countries. The research further suggests that the Law applies to less than half the Middle Eastern countries and is therefore not a law. The rate of growth of government spending could be explained by other political, economic or fiscal conditions that vary among countries and could not be generalized to all developing countries. Tohany considers data from 18 Middle Eastern countries for this purpose.

Mahnaz Fatima, Sameen Rafi and Ashfaque khan (1999) scholars from Pakistan have tested Wagners law of Increasing state Activties for Pakistan. The paper 'A test of Wagner's Law in Pakistan : An Application of co-integration and Error correction Modeling' covers the time period 1972-1995 that is after the break up of the former East Pakistan (Now Bangladesh) to 1995 and attempts to test Wagner's law by using advanced econometric techniques of unit root testing, co-integration analysis and error correction modeling.

For Pakistan the long term equilibrium relationship between per capita expenditure and per capita output is found but such relationship is not found between per-capita subsidies and per-capita output. The paper also concludes that there is no long term relationship between per-capita defence expenditure and per-capita output and also between per-capita general administrative expenditure and per-capita output. The error correction model applied shows a short term equilibrium relationship between real per capita public expenditure, real per-capita debt servicing expenditure and real per-capita expenditure on social, economic and community service. According to Fatima and others the level of government expenditure on education and health is not satisfactory in Pakistan.

Sajikumar Tulsidharan (2006) has examined the annual data on Government final consumption and Gross National product at market prices in nominal and real terms of India for the period 1960-1961 to 1999-2000. Test of integration, co-integration and error correction mechanism is used to investigate the casual relationship between these two variables. The result of the study is that in nominal terms higher economic growth invariably is accompanied by an increase in the final consumption expenditure of the Government.

In 1991 the share of public sector in GDP was around 33 percent. It is a proof of governments' direct involvement in manufacturing and service providing activities. This figure declined to 28.7 percent in 1997-98. The extensive and intensive expansion in the activities of the government of India during the planning period has resulted in a spectacular rise in the public expenditure. At constant prices the increase in public expenditure has been around twenty four fold over the last forty six years. But the benefits rarely percolated to the poorest section of the society. Those are appropriated largely by the urban and the rural elite.

In underdeveloped countries the public expenditure has to play an active role in many ways. i.e. from fulfillment of social wants to reduce the regional disparities. So it is believed that the larger size of the government would contribute slower to economic growth. Only the government providing necessary public goods for which no competition exist from private sector can definitely lead to faster economic growth. The paper has taken the survey of related literature which support this view.

The relationship between government expenditure and economic growth is directly investigated here. In order to explore the long term relationship between these two variables the concept of cointegration is employed and for this the Engle Granger Co- integration text is used.

It is now widely understood that through a combination of lower fertility rates and longer life expectancies, most economies will 'age' in the 21st century. The old age dependency ratio is forecast to increase. Druglas Holtz – Eakln, mary E. lovely and Mehmet S. Tosun (2004) have investigated the effect of demographic transition on the endogenous determination of productive public spending.

A slowdown in the population growth rate raised the average age of the population and alters the level of public spending. Douglas Haltz and others refer to the government spending program as education. In the education example, the change in spending alters the level of human capital, saving and consequently the level of per capita income. In the context of median voter model of the political process the paper shows that there is no automatic link between the preferences for lower spending by older individuals and the long run scale of programs for young workers. Given the current effectiveness of education services in raising human capital, lower taxes may imply poorer economic performance. Empirical estimates of the economic return to education, suggest that demographic will reduce output, despite a large capital stock, unless education services become more productive in raising human capital.

Gabriella Legrenzi and Costa Milas (2002) from Brunel University have identified, through empirical results, the existence of a long run relationship with general government expenditure positively affected by the demand side effect of income, the supply side effect bureaucratic power and public expenditure decentralization as an institutional factor. For this purpose the Italian general government expenditure is empirically modeled. The paper, brings out that when government expenditure is above its equilibrium level, both economic growth and local governments benefit. But tighter government spending within the European Monetory Union environment suggest that local government will have to become more efficient to find additional resources for their financing.

The short run estimates suggest that the government growth leads to higher economic growth. It also points to the increasing complexity of the economic system. Legrenzi and Milas suggest that constitutional constraints on public budgets and limits in the power of printing money are effective in limiting the size of government. In that sense the decentralizations reforms also need to address the issue of increasing financial responsibility at a local level.

Errol D'souza (2006) has studied both the sides of central budgets since 1997-1998 to 2006-2007. The article 'Outlays Inequality and Growth' argues that the infrastructure expenditure have a propensity to increase inequality and this turns the attention of government towards redistribution. This in turn, increases transfer payments and squeezes out capital expenditure. However the reduction in capital expenditure is growth constraining.

Declining expenditure and rising current revenues have contributed to increment in public savings in India. The government managed to reduce expenditure by reducing transfer payment accompanied by a decline in capital expenditure. D'souza argues that higher public investment disproportionately benefits larger firms and inequality increases. This is due to lower factor endowment of some firms in the economy. In India the increased allocation to transfers, subsides and public sector wages reduced the allocation to public investment and corruption reduced the effectiveness and productivity of public spendings. In India government has to invest in rural roads, agricultural research , education and health, electrification etc. 'which finally results in higher productivity growth, and have a larger impact on poverty reduction than to subsidies but the median voter keeps the expenditure transfixed to transfer payments and subsidies.

Human capital has a beneficial impact on growth. In this case there has been rise in the expenditure on the components like education, art and culture, health and family welfare. The direct effect of greater human capital is to lower the relative wage between unskilled and skilled workers and there is a reduction in inequality.

Rati Ram (2005) has explored the empirical status of the proposition about the positive association between a country's external openness and the size of its government. The research has considered a large multi country dataset covering the period 1960-2000 for this purpose. In this research the main conclusion is that the individual country estimates of the covariation between openness and government size reveal a dramatic diversity across countries and vary from large negative numbers to high positive values. There fore it might be hazardous to venture a generalization that would apply to all or most countries.

This paper studies the sign and the magnitude of the co variation between openness and government size for each of 143 countries from annual data covering a period up to 40 years. In this research the several models of correlations and regressions in levels and first differences with and without lags are estimated and obtained. The most notable outcome of the exercise is as stated above. In order to judge co-variation between openness and government size in each country the simple correlation between openness (OPEN) and government size (GOV) is calculated.

The process of globalization all over the world has made governments to help a country adjust successfully to the impact of globalization. Vito Tanzi (2004) concludes that globalization creates pressures for both industrial and developing countries to reform their fiscal accounts. But reforms needed are different for the two groups of countries for industrial countries the public spending will be needed to reduce and to be given a larger role to the private sector. But for the developing countries globalization creates pressures to increase public spending to upgrade the countries infrastructure, to improve their institutions, to finance costs of corrections in policies, to compensate some of those most affected by rapid globalization i.e. modern safety nets etc. Tanzi suggests that the developing countries should become more efficient in the use of public revenue so that the additional spending can be financed by the reduction in inefficiency. If they can not do this, or this attempt does not prove to be sufficient, they must reform their tax system to increase tax revenue.

In recent years it has been noticed that the state government fiscal deficit, especially the revenue deficit is mounting. In this context Sadanand Prusty (2001) has tried to explore the relation between fiscal policy and inflation in India. The paper 'Fiscal policy and Inflation in India: A further Empirical Analysis explores the impact of fiscal policy (Centre as well as states) on inflation in India. The empirical results show that M_3, revenue expenditure and indirect taxes are responsible for demand pull and cost push inflation in India.

The degree of openness played an important role in positively influencing inflation in India. The population growth also leads to demand pull inflation in India. The paper concludes that monetary policy itself is influenced by fiscal policies of the central and state governments. By using correlation matrix and linear regression on the data of money supply, State & central government expenditures & tax income for the years 1960 to 1997, the paper has found that the real factor responsible for the price instability in the Indian economy in recent years is not only the central government fiscal policy but also the state government's fiscal policies. Therefore the paper advocates prudent fiscal policies for controlling inflation in India.

Adel Aziz Mahjoub (2001) from form University of Paris has attempted to elucidate some of the different aspects of inflationary finance in sub-Saharan African Countries. His paper 'The Place of Inflationary Finance in public Decision : The case of sub-Saharan African countries' studies the finance pattern of fourteen economies from France Zone and twenty-eight economies form non-France Zone.

When there are obstacles to raise sufficient tax revenue and in absence of developed capital market or external borrowing, the government has no option other than money creation (seignorage). This printing of money reduces the real value of monetary unit. This reduction can be felt as a kind of tax on money holders. In Sub-Saharan African countries the presence of large agricultural sector tends to depend more on seignorage. The degree of openness effect on seignorage is negative in case of these countries and this can be explained by the weakness of the share of exports and imports in GDP. Seignorage depends positively on the level of government spending. Political Factors also have an influence on Seignorage.

Archana and Ravindar Dholakia (2005) have illustrated an application of a model of government expenditure allocation among sectors through the data on major Indian states for the period 1971 to 1991. They argue that the changes in expenditure allocation are determined not only by the magnitude of marginal productivities of government efforts but also by marginal returns in relative terms. The indicators from education, health, nutrition and other social sector measure the index of basic welfare as the output of government efforts. In order to develop a frame; Dholakia have divided the economy in to two groups the poor and non-poor and the commodities as basic and non-basic commodities. The author have proposed Basic Welfare Index to measure welfare level in the states based on three indices health education and nutrition. The data on fourteen states is considered in order to test model empirically. The results of the model suggest that an increase in expenditure on human capital by government, increases the basic welfare at increasing rate and that on physical capital increases the welfare at decreasing rate. It is also inferred that at a policy level, where the choices are not exclusive but margin. The balance in favour of expenditure on human capital would help achieving the target welfare level more efficiently.

S: Sudhankar and A. G. Moss (1998) scholars form Osmania University, have studied different head wise social sector expenditure of center and state for the period from 1987 to 1995 as pre and post reform period. In the initial years of economic reforms it was the apprehension about the likely adverse impact of the reforms on the Indian Vulnerable sections. The figures from the beginning also support this apprehension.

The study reveals that the proportion of the budgetary expenditure on the social sector, on the both centre and state account has increased during the five years post reform period in relation to the corresponding pre-reform period. But in case of centre and state combined the expenditure proportion of Education, Art and Culture, Public Health Sanitation and Water supply, Family Welfare, Food Subsidy, Housing, Labour and Employment could not be sustained during the same period. Further, in the case of the centre, on an average the expenditure proportion of all the components, excepting education, food, civil supplies, consumer Affairs , Public Distribution System and Art, Culture, Sport and Youth Services have gone up during the five years post reform period compared to the corresponding pre-reform period. In the case of all states combined on an average, the expenditure proportion of the social sector has gone down during the five year post-reform period.

Seema Joshi (2006) has tried to analyse the impact of economic reforms on social sector expenditure in India. She analyses the social sector outlays of the central and state governments in pre-reform and post reform period and assesses the impact these had on the social sector in India. For this purpose the period 1981 to 1990 as pre-reform period and from 1991 to 2001 as post-reform period is considered. Whether the social sector expenditure is affected or not during reform period is analysed by Joshi.

As a proportion of aggregate expenditure the share of social sector expenditure in combined expenditure of central government registered an increase during the reform period. As a proportion of GDP, central government expenditure incurred on the social sector has followed a highly fluctuating trend in both periods. India is spending a very low percentage of GDP on this particular sector. With regard to education, the share of education increased during the pre-reform period. But during the post-reform period it continued to decline till 1996-97. A similar declining trend has been observed in health care expenditure in the post reform period.

A commonly expressed concern is that fewer education dollars today leads to higher future crime rates, which in turn will further crowd out education spending in the future. This issue is researched by Michael Marlow and Alden F. Shiers (2001) They have examined the relationship between expenditure of public institutions of higher educations and public spending on crime related programmes.

Fears about insufficient public education spending in the area of higher education and increasing crime related expenditure crowding out expenditure on higher education suggest that higher education and crime related programs directly compete for government expenditure so that what one program gains the other must lose as in a zero sum game.

Marlow and Shiers, examining the relationship between spending on higher education and crime related programs in U.S.A. between 1985 to 1992, conclude that there is weak evidence that crime related program have crowded out spending on higher education. i.e. .the crowding out hypothesis is not supported by their findings.

University scholars from Greece Chirstas Kollias, George Manolas and Suzanna Maria Paleologou(2004) examines the relationship between military expenditure and growth among the EU 15 members using co-integration and causality tests for the period 1961-200. They have analysed the defense expenditure of European Union.

In recent years there has been a move towards the development of common European Security and Defense Policy in the European Union. The creation of European Defense Union raises a number of important policy issues from an economic perspective. The EU countries represent a fairly diverse picture in terms of level of development as well as defense burden for the period 1961-2000. In case of countries such as Greece, France, the UK and Portugal their defense burden has consistently been higher than EU average where as in case such as Luxemburg, Finland, Ireland and Austria their defense burden has consistently been lower than the EU average. This reflects different external security needs and significant difference in defense policy. In case of growth also most countries growth performance has generally tended to oscillate above or below the EU mean.

Although the result drawn does not reveal uniform among 15 countries it is argued in the paper that an important number governments in EU make defence spending policy decisions based on the state of their economy with the implication for the objective of a Common European security and Defence policy (CESDP.)

N. Dritsakis (2004) have investigated the relationship between the defense spending and economic growth for two adjacent countries, members of NATO, namely Greece and Turkey: Greece a member country of European Union spends more money than other member countries of EU relatively to its GDP. The paper has proved that there is no co-integrated relationship between defense spending and economic growth.

Defense spending form Greece and Turkey is representative indicator of historical fluctuations in their bilateral relations. But the result of their paper shows that there is no long-run relationship between economic growth and defense spending for both countries as well. The Granger Casulity tests applied in this research shows that there is a unidirectional casual relationship between economic growth and defense spending. That is the defense spending follows economic growth. The result of the bi-directional casual relation between these two countries shows that those who exercise defense policy determine the level of defense spending of their own country according to the level of defense spending of the other country.

Rosella Levaggi (2002) a scholar from the university of Brescia, Italy has discussed the allocation of public expenditure among competing services. Her article deals with the financial relationship between central Government and its agents (an autonomous government level) and focuses in particular on the procedures used to distributed the total budget between competing services in a decentralized system.

The simultaneous use of both price and quality restrictions on budgets has been strongly criticized by economists for being inefficient and inequitable for reducing consumers choice, and for not being supported by the literature on fiscal federalism. The article shows that a double budget constraint can be justified on different grounds and the appropriateness of its use derives from the environment in which the allocation is made Central Government the budget holder, is working in an uncertain environment where it is not able to provide itself the services that are needed and can not observe costs with certainty. The choice between an overall or double budget constraint is determined by the type of allocation that maximises Central Governments expected utility.

Takero Dot (2006), from Kei University Tokyo has showed that inefficient public expenditure can be institutionally curtailed by an independent central bank in the international economy. He concludes that an independent central bank promotes. budgetary efficiency. An advantage of his analysis from the angle of public economics is to treat the relation between central bank independence and fiscal policy (public goods provision). When the Central bank is not independent of the fiscal authority, that is, when fiscal policy is determined before monetary policy, the public good is oversupplied. When the central bank is independent (monetary policy is predetermined) however, the expenditure level is efficient.

Tokero Dot analyses the relation between central bank independence and fiscal policy as well as monetary policy in his paper. For this purpose a two large country model with cash in advance constraints in order to investigate the idea that inefficient public expenditure can be institutionally curtailed by an independent central bank from the angle of public economics. When fiscal policy is predetermined the government can decide public good provision in anticipation of money supply. If forces the central bank to finance fiscal deficit. When monitory policy is predetermined, the central bank sets the money supply rule. So the government appropriately collects the fiscal revenue. Therefore the public good is efficiently supplied.

Takiro dot suggests that when the central bank is independent in each country this equilibrium is Pareto efficient even if each policy maker does not co-operate to decide its policies each other. He further says central bank independence is significant for efficiency when international policy co-ordination fails in world economy.

Kathleen N. Day and Rose Anne Devlin (2004) from university of Ottawa address the issue of corporate charitable contributions for shortfall in services brought about by government spending adjustments. Authors have used a data set containing 641 observations on corporate giving in Canada over the three years period form 1990 to 1992. Rather than filling the gap left by government spending reductions, their results suggest that corporate contributions could contract that government spending and corporate contributions may be complements rather than substitutes. There are several reasons to take into account the giving behavior of corporations. Today they are becoming an increasingly important source of funding particularly for secular charities. Worlds most of the governments are trying to bring their spending under control and charitable organizations will likely place increasing pressure on corporations to help fill the gaps left by reductions in government services. Using a Canadian micro data set Day and Devlin have explored this reaction. Their results point to the fact that corporate donations are crowded in by government expenditure.

State government spending has grown rapidly in recent years in absolute terms and as a share of total government spending. Therese A . McCarty and Stephen J. Schimidt (2001) analyze the changes in aid and expenditure over time. The authors find that deviations in expenditure and category specific aid have a much stronger effect than aid revenue or income. Suggesting a flyover effect in which aid is spend disproportionately in the category in which it is granted. The results imply that increase in state expenditure above trend persists for several years. It can be 5 years or more before the effects of an increase above trend in state spending on a given category are exhausted. This pattern implies dynamic links between spending decisions across years, in which today's spending decisions after tomorrows decisions as well. These results suggest that changing levels of spending today have significant impacts on future demand for spending in that category. Similarly, increase in category specific state aid has long lasting effects on state spending within those categories.

Summary

It is clear from the above survey, on current studies, that public expenditure is a widely observed area in recent days. Sub-components of public expenditure like defence, social services and their effects on the economy, for example effects on economic growth, welfare, stabilization etc are thoroughly discussed in these articles. Most of the articles have discussed the secular growth in public expenditure.

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4. Data Analysis & Interpretation
of
Public Expenditure in India

Public expenditure has multidimensional effects upon society and economy. In framing it's scheme of expenditure the state must show greater foresight than the individuals. Since the state incurs expenditure to confer benefits, 0the entire scheme of public expenditure is so framed that the aggregate of the benefits conferred is maximum.

The UN Bureau of Economic Affairs New York, in its "A Manual for Economic and Functional Classification of Government Transactions" groups expenditure under five heads viz., General services, Community services, Social Services, Economic Services & Unallocable. The National Council of Applied Economic Research, in its "Economic-Functional Classification of Central and State Government Budgets, 1957-58" omitted the category of community services and allocated the services shown in the Manual under the head to social services or Economic services as the case might be. This pattern has been followed by the Government of India also. Accordingly, the functional classification of public expenditure has been allocated into four main categories i)General Services ii) Social Services iii) Economic Services and iv) Unallocable.

i) General Services:

This category covers both civil and defence expenditure which includes general administration, tax collection, police, currency and mint, external affairs, defence, non-plan provision against natural calamities .etc. subscriptions to IMF and IBRD (But not to WHO and FAO) are also shown here.

ii) Social Services:

They include basic social amenities like education, public health, basic research etc. and combined category labour welfare, housing & other social welfare schemes like public libraries, publicity, broadcasting, programmes of employment, lum sum grants for slum clearance, primary education, rural water supply, rural home sites, nutrition programme for children, relief expenditure for displaced person etc.

iii) Economic Services:

This category covers all those expenditures which directly or indirectly promote economic activity and are divided into agriculture, industry, transport and communications and other economic services. Agriculture is subdivided into Irrigation, animal husbandry, fisheries, forestry, co-operation and community development.

iv) The Unallocable Category:

It covers those items which can not be covered by above three heads. Expenditure on pensions, food subsidies, statutory grants in-aid to states, special loans, aid to foreign countries have the unallocable category.

The Annual Financial Statement of GOI

The budget of Government of India is a statement of its estimated receipts and expenditure for a one year period and it is called as "Annual Financial Statement". The receipt and payments are divided into three parts, namely.

i) Consolidated Fund of India.

This fund includes all tax and non-tax receipts, recoveries of outstanding loans granted by it and fresh borrowing of GOI. All payments from this fund can be made only after authorisation from parliament.

ii) Contingency Fund of India.

It is an account at the disposal of the president to meet urgent and unforeseen expenditure pending authorization from parliament.

iii) Public Account of India.

Some transactions enters into Government accounts in respect of which the government acts more as a banker (i.e. provident funds, small savings collections and other deposits). All receipt and payments of this type are credited to the public account. Parliamentary authorisation is not required for payments from this account.

Classification as Revenue and Capital Accounts

Our constitution requires that GOI budget should distinguish expenditure on capital account from other expenditure. Therefore the budget of GOI is split up into revenue account and capital account components.

Capital Account

Items representing receipt and disbursements of those funds-

i) Which do not belong to the Government (such as deposits, collection of small savings and other forms of loans but not grants.)

ii) Which lead to variation in physical assets of the Government (i.e. their acquisition, creation and disposal or addition, subtractions and alterations.) which lead to variation in functional claim upon or liabilities to third parties

are classified under capital account.

Revenue Account

As against above

i) variation in money balances created or owned by Government (such as through tax collections and their spending, receipt and payments of interest, dividends, profits, rents, fees and fines, grants etc.)

ii) expenditure on upkeep and maintenance of physical assets.

iii) cost of administration, police and judiciary,

belong to revenue account.

Control of Public Expenditure

The overall process of control of expenditure in India is three fold one - each stage represents distinct set of duties and responsibilities. The three-fold process of control is a) Administrative control b) Audit control and c) Parliamentary control. In order to make efficient allocation, to avoid wastage and loopholes and to consider the preferences given by the community, these three types of controls are exercised in India.

New Economic Policy and Government Expenditure

The year 1991-92 was the year of transforming changes in Indian economy. Liberlisation, privatization and globalization became integral part of economic policies under Structural Adjustment Program (SAP). The SAP has affected each and every segment of Indian economy in general and public expenditure policies in particular. We have analyzed central Government expenditure during this new economic policy regime as follows.

Total Expenditure

During reform process, in any country, Government shrinks its size and encourages private sector to participate more actively in the market. It is experienced all over the world that if the country is developed. Government tries to withdraw from the market while reforming it but if the country is developing Government has to expand its expenditure size while and after reforms. This is because in developing countries the

Government has to prepare for and to protect some section of the society from the negative fall out of the reforms. Table No. 1 Shows the evidence from India.

Table

No:01

Total Expenditure by Central Government

(Rs. In Crores)

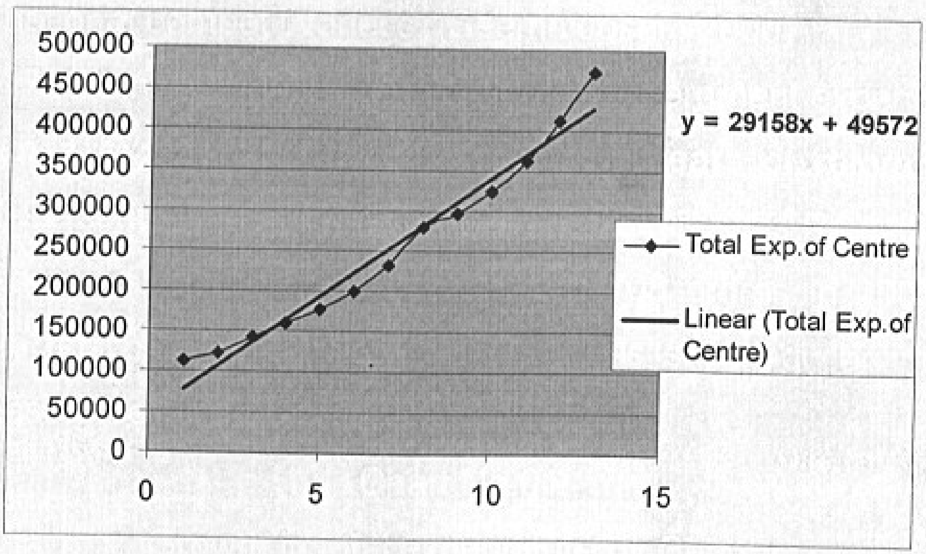
No	Year	Expenditure	% change	% of GDP	Estimated Trend Value
1	1991-92	111414		9.24	78730
2	1992-93	122619	10.06	9.64	107888
3	1993-94	141853	15.69	10.64	137046
4	1994-95	160739	13.31	11.31	166204
5	1995-96	178276	10.91	11.66	195362
6	1996-97	201007	12.75	12.22	224520
7	1997-98	232053	15.45	13.56	253678
8	1998-99	279340	20.38	15.37	282836
9	1999-00	298052	6.70	15.27	311994
10	2000-01	325592	9.24	16.03	341152
11	2001-02	362311	11.28	16.96	370310
12	2002-03	413249	14.06	18.65	399468
13	2003-04	471302	14.05	19.62	428626
14	2004-05	497322	5.52	19.11	457784
15	2005-05	508708	2.29	17.90	486942

Stabilisation & Structural Adjustment Programme (SAP) was introduced in July 1991. It was an attempt to resolve the crisis of 1991 which could be judged from the parameters as high fiscal deficit, high balance of payment of deficit, double digit inflation and low forex reserve. One of the important planks of the stabilization measures is the compression of public expenditure and that of SAP is raising efficiency and international competitiveness. (Seema Joshi : 2000)

Table no. 1 shows that the central government expenditure side has expanded 4.5 times within 15 years of reforms. In 1991-92 central governments total expenditure was Rs.1,11,414 crores which increased up to Rs. 508708 crores in 2005-06. Within this period the total expenditure is showing continuous increasing trend

Chart No.01

Growth in total expenditure by Centre



The comparison of government expenditure as a proportion of national income may tell us a great deal about the nature and consequences of government intervention or participation in the economic system.[13] An increase in government expenditure due to growing demand for employment of resources to satisfy collective needs brings out important changes in the structure of the economy. And so the relation between government expenditure and national income reflects the importance of government in the community. In India after 1991 the total expenditure of Central Government is increasing as a percentage of national income. In 1991 it was 9.24 percent of GDP which increased up to 17.90 percent of GDP in 2005-06.

Growth in total expenditure

By considering the total value of Government expenditure in the 15 years of the study we estimated the log linear model. The results of the same are presented below.

$$\ln TEXP_t = 11.53033 + 0.114837\, t$$
$$se = (0.025646)\ (0.0028206)$$
$$t = (449.5954)\ (40.71239) \qquad R^2 = 0.992218$$

TESP stands for total expenditure by centre.

β_2 The coefficient of in above equation shows that total expenditure by central government during 1991 to 2005 increased at the rate of 11.48 percent annually.

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13 Kaipa Narayan Reddy : The Growth of Public Expenditure in India. (1872-1968) – P. 17.

The compound growth rate = 12.169 is slightly higher than simple growth.

Growth in Central Government Expenditure and National Income.

Table No:02

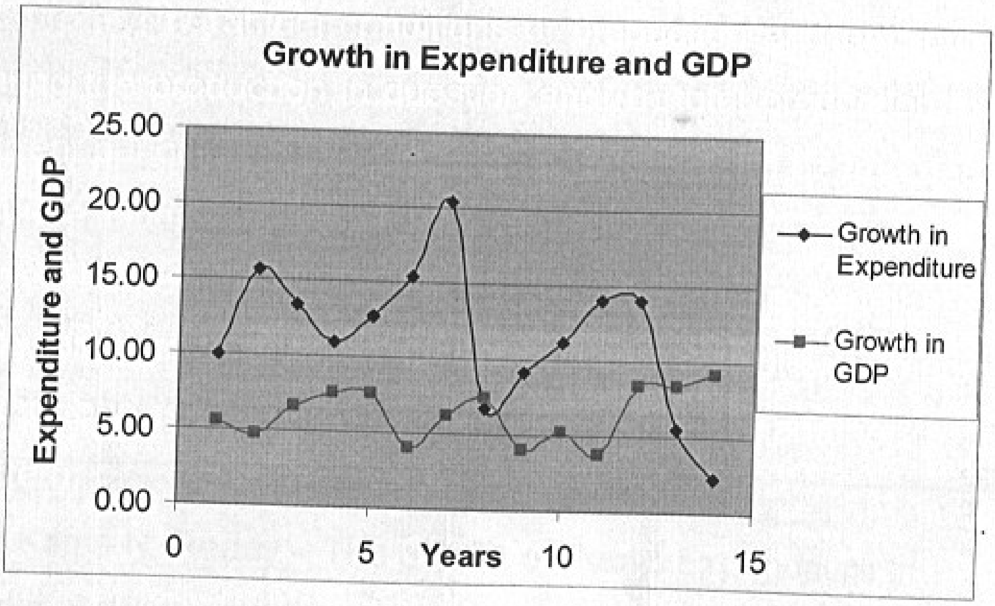
(Rs. In Crores)

Year	Central Government Expenditure	Growth in Expenditure	GDP at constant prices	Growth in GDP
1991-92	111414		1206346	
1992-93	122619	10.06	1272457	5.48
1993-94	141853	15.69	1333126	4.77
1994-95	160739	13.31	1421831	6.65
1995-96	178276	10.91	1529453	7.57
1996-97	201007	12.75	1645037	7.56
1997-98	232053	15.45	1711735	4.05
1998-99	279340	20.38	1817752	6.19
1999-00	298052	6.70	1952036	7.39
2000-01	325592	9.24	2030867	4.04
2001-02	362311	11.28	2136635	5.21
2002-03	413249	14.06	2216260	3.73
2003-04	471302	14.05	2402247	8.39
2004-05	497322	5.52	2602235	8.33
2005-05	508708	2.29	2842478	9.23

Wagner's 'Law of Increasing State Activity' mentions that for growing economies the share of all major government expenditure increases. Ultimately increased public expenditure is due to the pressure of social progress. Government expenditure grows faster than growth of the economy. In order to trace growth in government expenditure and national income, we lonsider GDP at constant prices as a indicator of national progress. GDP or GNP is suitable because[14] (a) it reflects more accurately the actual conditions of production and employment during the production in question and (b) total production in the current period is not under estimated as it would be in a derived figure excluding replacement investment.

The actual figures on central government expenditure and its yearly growth during reform period bring out two important points one is secular growth expenditure and another is time pattern.

Chart No.2



It will clear from the Chart no.2 that there are three time patterns, regarding to growth in centre's expenditure i.e. growing trend up to certain level and after that decling trend, patterns are from 1991-92 to 1994-95, 1994-95 to 1989-99 and 1998-99 to 2005-06. If we view it as overall, it is shaving secular growth.

From the above graph it will be clear that there is a secular growth in GDP during the period under study but the growth in total expenditure by centre is higher than the growth in GDP.

Plan and Non- Plan Expenditure

Classification of expenditure as plan and non-plan is essential to know if government is sticking to it's well designed planning or not. Since 1987-88 budget the central government adopted this classification. Non-plan expenditure is further divided into revenue expenditure and capital expenditure. We have concentrated here on only aggregate plan and non-plan expenditure of the centre.

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14 Kaipa N. Reddy – The growth of Public Expenditure in India. P.15

Table No:03

Non- Plan & Plan Expenditure by Centre

(Rs. In Crores)

No	Year	Plan Exp.	Non-Plan Exp	Total	Plan Exp % to Total	Non-Plan Exp % to Total
1	1991-92	30961	80453	111414	27.79	72.21
2	1992-93	36661	85958	122619	29.90	70.10
3	1993-94	43662	98191	141853	30.78	69.22
4	1994-95	47378	113361	160739	29.48	70.52
5	1995-96	46374	131902	178276	26.01	73.99
6	1996-97	53534	147473	201007	26.63	73.37
7	1997-98	59077	172976	232053	25.46	74.54
8	1998-99	66818	212522	279340	23.92	76.08
9	1999-00	76182	221870	298052	25.56	74.44
10	2000-01	82669	242923	325592	25.39	74.61
11	2001-02	101194	261117	362311	27.93	72.07
12	2002-03	111470	301779	413249	26.97	73.03
13	2003-04	122280	349022	471302	25.95	74.05
14	2004-05	132376	364946	497322	26.62	73.38
15	2005-06	143791	364917	508708	28.27	71.73

Under non-plan expenditure items like interest payment, defence revenue expenditure, major subsidies, debt relief of farmers, police, pensions, out of plan expenditure on social and economic services, grants to states, union territories, loans to public enterprises, loans to states and union territories and loans to foreign Governments are included. Table No.3 shows that during reform period the central governments non-plan expenditure is more than 70% of total expenditure. During this period it is rising very fast. Interest payments, defence, all subsides and other general services account for 85 percent of centre's total non plan expenditure. What is really serious that there is absolutely no chance of these four items being kept under check.[15] In 1991-92 the centre's non-plan expenditure was Rs. 80453 crores which increased up to Rs.364917 crores within fifteen years of reforms. (4.5 times increase)

Plan expenditure is another component of central Government expenditure which is composed of a) Central plans, such as on agriculture, rural development, irrigation and flood control, energy, industry and minerals, transport, communications, science and technology and environment, social services and others.b) Central assistance for plans of the states and union territories.

It is clear from the table 3. that in 1991-92 the plan expenditure of centre was Rs.30961 crores and it is Rs.143791 crores in 2005-06. (4.6 times increase). It has always remained below 30 per cent of total expenditure.

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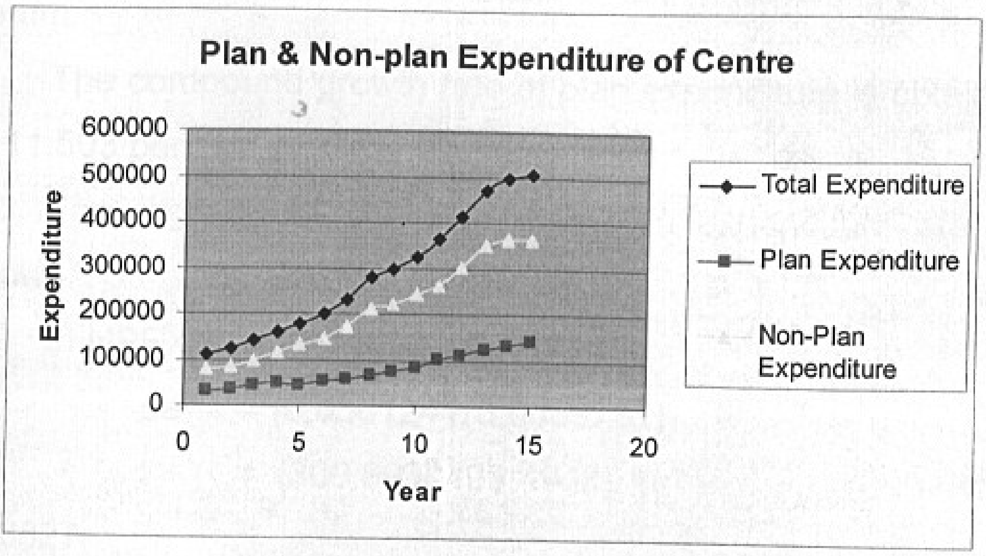
15 Datta Sundharam – Indian Economy (55th edi.) P-910.

Chart no 3



The graph of the plan and non-plan expenditure again highlights the fact that the later component constitutes the major component of total expenditure. The main factor for the fast increase in total expenditure is the growth of the non-plan expenditure during the reform period.

Growth of Plan and Non-plan Expenditure

The absolute figures of plan expenditure if computed in the model, gives the following regression results.

$\ln PE_t = 10.27038 + 0.108889t$

se $= (0.0263937)\ (0.0029029)$

t $= (389.1223)\ (37.51004)$ $R^2 = 0.990845$

Where PEX stands for plan expenditure by the centre.

The above results tell that (β_2 value) the growth rate of plan expenditure during the reform period is 10.89 percent per annum.

The compound growth rate of plan expenditure is obtained as 11.503 percent.

The regression results for non-plan expenditure are as follows.

$$\ln NPEX_t = 11.11498 + 0.117188t$$
$$se = (0.036124)\ (0.0039731)$$
$$t = (309.899)\ (29.4948) \qquad R^2 = 0.98527$$

Where NPEX stands for Non-Plan expenditure by centre.

The above results indicates 11.71 percent growth in non-plan expenditure during last fifteen years and compound growth rate is = 12.433 for the same period. The results clearly show that in simple growth rate and compound growth rate the non-plan expenditure in much higher than the plan expenditure during to reform period.

Revenue and Capital Expenditure

Revenue expenditure (or current expenditure as it is called) is met out of current revenues. Revenue expenditure is on a) such general services as general administration including police, judiciary, defence, collection of taxes. b) Social and community services, such as education, medical and public health, labour and employment and c) Economic services like agriculture, industries, transportation, trade etc. During reform period 79.2 percent of total expenditure is observed to be revenue expenditure. This expenditure does not create any asset to the government or the society but needed to run the machinery. In 1991-92 the revenue expenditure of centre was Rs. 82292 crores which increased up to Rs. 440292 crores. It is 5.3 times increase during the fifteen years.

Table No:04

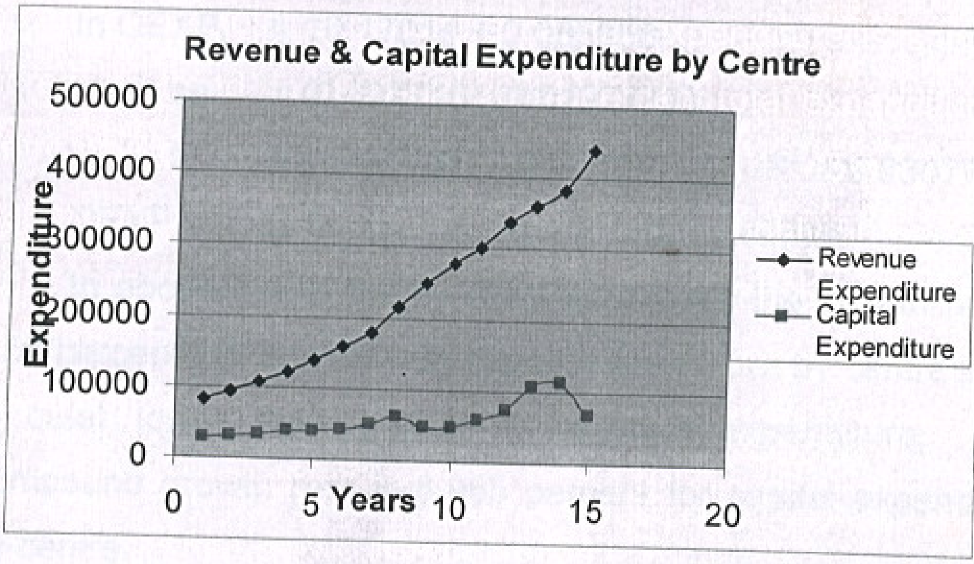
Revenue & Capital Expenditure by Centre

(Rs. In Crores)

No	Year	Revenue Exp.	Capital Exp.	Total Exp.	(Reven. Exp. to Total) %	(Capital Exp. to Total) %
1	1991-92	82292	29123	111415	73.86	26.14
2	1992-93	92702	29916	122618	75.60	24.40
3	1993-94	108169	33684	141853	76.25	23.75
4	1994-95	122112	38627	160739	75.97	24.03
5	1995-96	139861	38415	178276	78.45	21.55
6	1996-97	158933	42074	201007	79.07	20.93
7	1997-98	180335	51718	232053	77.71	22.29
8	1998-99	216461	62879	279340	77.49	22.51
9	1999-00	249078	48974	298052	83.57	16.43
10	2000-01	277839	47753	325592	85.33	14.67
11	2001-02	301468	60843	362311	83.21	16.79
12	2002-03	338713	74536	413249	81.96	18.04
13	2003-04	362074	109228	471302	76.82	23.18
14	2004-05	384351	112971	497322	77.28	22.72
15	2005-06	440295	68413	508708	86.55	13.45

Capital expenditure of the central Government consists of expenditure on capital items, mainly in the form of loans to states and union territories, for financing plan projects and other capital expenditure on economic development, social and community development and capital expenditure on defence. As percentage to total expenditure capital expenditure is showing decreasing trend. In 1991-92, 26.14 percent total expenditure of centre was on capital account, it decreased to 13.45 per cent of total expenditure. Allocation came down by roughly 50 per cent. In absolute terms it was Rs. 29123 crores which could increase only up to Rs. 68413 crores. It is 2.3 times increase but lower than growth in revenue expenditure.

Chart No. 04



It is clear from the Chart No. 04 that fast increase in revenue expenditure is leading to fast growth in total expenditure of central government which ultimately is leading to debt burden of centre.

Growth of Revenue and Capital Expenditure

The absolute data on revenue expenditure by centre gives the following regression results.

$$\ln REXT_t = 11.2403 + 0.121925_t$$
$$se = (0.0297159)\ (0.0032683)$$
$$t = (378.2585)\ (37.30508) \qquad R^2 = 0.990745$$

Where REXT stands for Revenue Expenditure by the centre.

β_2 value in the equation show that the revenue expenditure increased by 12.19 percent during the period under study.

Its compound growth rate is 12.967 Percent.

The log - lin model on capital expenditure gives the following regression results.

$$\ln CEXP_t = 10.17014 + 0.085858_t$$
$$se = (0.097716)\ (0.0107473)$$
$$t = (104.078)\ (7.98875) \qquad R^2 = 0.830774.$$

CEXP stands for capital expenditure by centre.

In above model the β_2 value expresses the growth rate of 8.58 percent per annum with capital expenditure by centre and it is quiet lower than growth in revenue expenditure. The compound growth rate is 8.965 percent for capital expenditure by centre.

Developmental & Non developmental Expenditure

Expenditure of centre can be also divided as developmental expenditure and non-developmental expenditure. This classification is based on the purpose which the expenditure serves. Developmental expenditure directly linked with the developmental programmes and plans of the centre. Most part of the plan-expenditure and capital expenditure is developmental expenditure. After reforms the development needs of this country are rapidly increasing. Especially the energy is becoming most critical issues day-by-day. In this situation the centre has to increase the developmental expenditure. But it will be clear from the above table that the part of the total expenditure as developmental expenditure is decreasing year after year during reform period. In absolute figures the developmental expenditure of the centre in 1991-92 was 59313 crores Rs. which increased up to 229060 crores Rs. in 2005-06. (3.9 times increase). But as a percentage of total expenditure for the same period it decreased from 51.81 percent to 40.55 percent. During this period 10 percent total expenditure is reallocated to non-developmental from developmental.

Table No. 05

Developmental & Non-developmental Expenditure of Central Government

(Rs. In Crores)

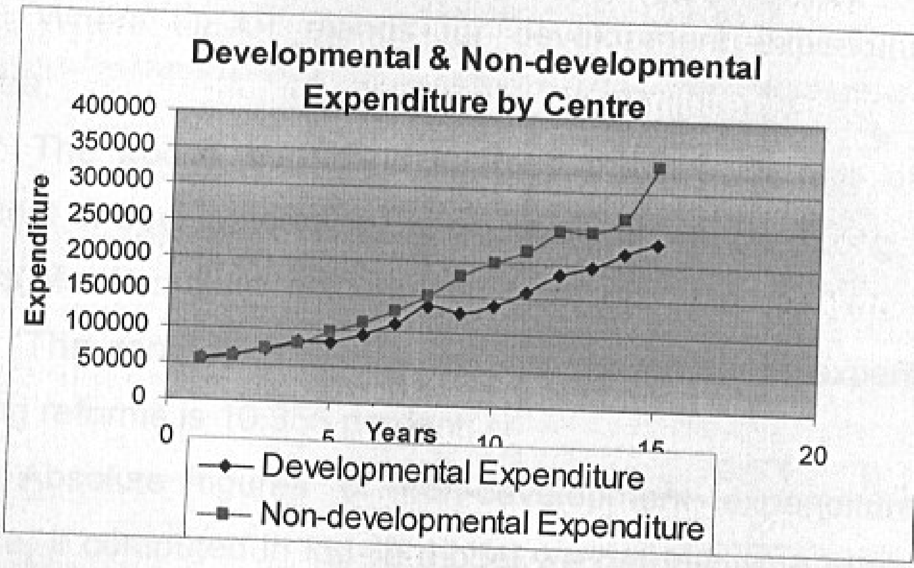
No	Year	Develop . Exp*	Non-Develop.Ex.*	Total Exp.*	% Develop Exp.	% Non-Develop .Exp.
1	1991-92	59313	55170	114483	51.81	48.19
2	1992-93	65479	60584	126063	51.94	48.06
3	1993-94	72464	73586	146050	49.62	50.38
4	1994-95	82803	82402	165205	50.12	49.88
5	1995-96	84427	98632	183059	46.12	53.88
6	1996-97	94197	112217	206414	45.63	54.37
7	1997-98	110994	127820	238814	46.48	53.52
8	1998-99	137257	150298	287555	47.73	52.27
9	1999-00	129151	177928	307079	42.06	57.94
10	2000-01	139386	197470	336856	41.38	58.62
11	2001-02	159364	215456	374820	42.52	57.48
12	2002-03	184197	242749	426946	43.14	56.86
13	2003-04	195428	243298	438726	44.54	55.46
14	2004-05	214955	262904	477859	44.98	55.02
15	2005-05	229060	335757	564817	40.55	59.45

*Figures from Handabook of Statics by RBI

Defence services, debt servicing and administration expenditure these three components of non-devlopmental expenditure are pushing non developmental expenditure high.

During reforms period non-developmental expenditure is increased at huge extent, in both absolute and relative manners. In 1991-92 the non-developmental expenditure was Rs 55170 crores. Which increased up to Rs 335757 in 2005-06. During these 15 years it increased at about six times. As a percentage of total expenditure it increased from 48.19 percent to 59.45 percent.

Chart No. 05



It is also revealed from the Chart No. 05 that from 1994-95 non-development expenditure chased out and went ahead of developmental expenditure.

Growth of Developmental and Non-Developmental Expenditure

Considering the data on development expenditure we get the following regression results.

$$\ln DEXP_t = 10.90225 + 0.09853_t$$

$$se = (0.0263468)\ (0.00289776)$$

$$t = (413.797)\ (34.0041) \qquad R^2 = 0.985277.$$

Where DEXP stands for development expenditure by centre.

The above equations express the growth rate of 9.85 percent in development expenditure by the centre during fifteen years of reforms.

The compound growth rate for development expenditure during reforms is 10.355 percent.

Absolute figures of non-development expenditure the centre, if computed in log-lin model we get following regression results.

$$\ln NDEX_t = 10.8395 + 0.12698_t$$

$$se = (0.038525)\ (0.004237268)$$

$$t = (281.357)\ (29.9673) \qquad R^2 = 0.985731.$$

NDEX stands for non development expenditure by centre.

Above regression equation interpret that non-development expenditure shows 12.69 percent growth rate after the implementation of new economic policy and it grew with compound rate of 13.539 percent

Percentage Allocation of Central Government Expenditure

Beside grants and loans given to state governments, Union territories and various departments, the central government expenditure is classified as expenditure on general services, expenditure on social services and expenditure on economic services. The first and third category of expenditure indicates the general and economic responsibility of the centre and the second category shows the central governments contribution in general welfare of the society.

During fifteen years of reforms (from 1991-92 to 2005-06) on an average 51.83 percent total expenditure of centre is incurred on general services. This is the largest head in the total expenditure of the centre. It is because of the two major subheads i.e. debt servicing and defence services, which together contribute 40% of the total expenditure of the centre. Actually the general services expenditure is the expenditure incurred in running the machinery of government and so the major part of general expenditure is incurred on revenue account.

Table No.06

Allocation of Expenditure by Centre

Year	%General Services	%Social Services	%Economic Services	Loans given*
1991-92	46.19	3.27	23.95	26.59
1992-93	48.43	3.31	23.31	24.96
1993-94	49.51	3.42	22.99	24.08
1994-95	49.75	3.68	23.57	23.00
1995-96	51.93	4.32	22.11	21.64
1996-97	52.74	4.83	20.64	21.78
1997-98	53.03	5.15	20.88	20.94
1998-99	51.89	5.28	21.21	21.63
1999-00	57.24	5.82	21.94	15.01
2000-01	56.24	5.49	23.39	14.88
2001-02	54.28	5.61	24.07	16.03
2002-03	49.57	5.33	24.71	20.40
2003-04	47.10	5.06	24.42	23.43
2004-05	49.07	6.01	21.88	23.03
2005-05	50.55	7.27	26.00	16.19
*Loans & Grant-in-aid given to state governments & UTS				

Major social welfare programmes in India are run by state governments. So social service expenditure is always dominant (at about 30 percent) in state government expenditure policy. As far as central government is concerned, it spent very less amount on social services. The Eighth Five Year Plan (1992-97) document stated that the social sector development is the primary responsibility of the government particularly in the context of ongoing economic reforms. And as on the centres part allocation on social services is increasing during reform period[16]. In 1991-92 3.27 percent total expenditure was spent on social services. After fifteen years it is increased up to (2005-06) 7.27 percent. Table No. 06 is showing the continuous rise in percentage total expenditure on social services.

During reforms at about one-fourth of the total expenditure is spent on economic services by centre in India. The subheads like agriculture and allied activities, energy and transport and communication are as country's priority needs come under this head. Therefore the major part of economic services expenditure is developmental expenditure. During reform period the centre's about 23 percent total expenditure is incurred on economic services and it is quiet consistent with the growing infrastructural needs of the country.

As far as aid, grants loans given to state governments, union territories and various departments are concerned, the centre's role seems to be contracting during reforms. It reflects the process of making self reliant the different layers of the governments in India.

General Service

Most of the revenue expenditure by the centre is incurred on general services. It is clear from the table – that at about 45 per cent of total expenditure is on revenue side is incurred on general services. Actually there is a little scope to spend on capital side of general services. Therefore the general services

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16 As Quoted by Sudhakar – Moss (1998)

expenditure is mostly a consumption expenditure of central government.

Table No:07

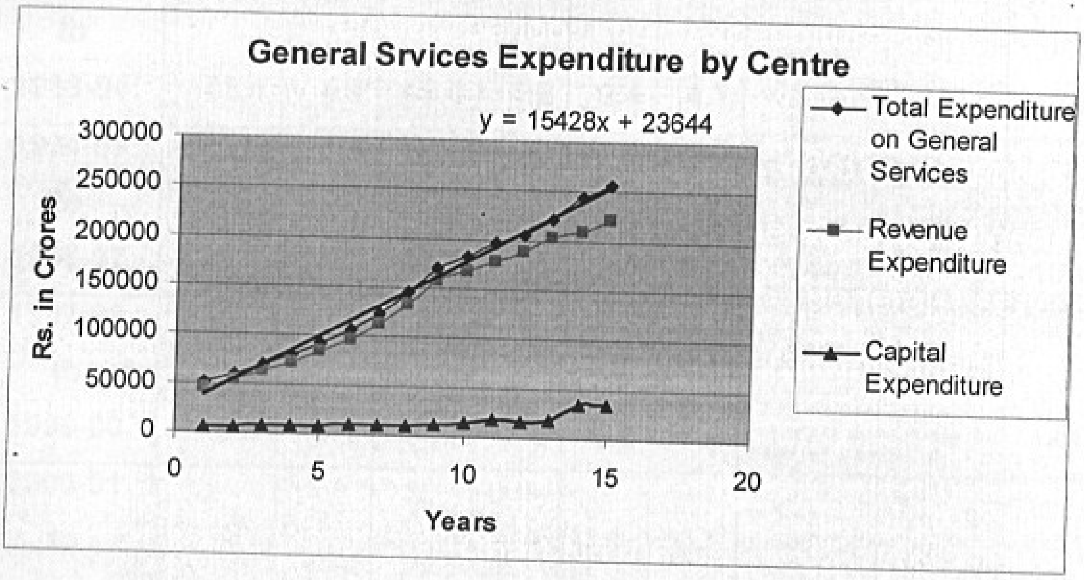
General Service expenditure by central govt

(Rs. In Crores)

No	Year	Revenue	Capital	Total	Trend Value y=a+bx
1	1991-92	46232	5232	51464	39072
2	1992-93	53496	5888	59384	54500
3	1993-94	62833	7392	70225	69928
4	1994-95	72710	7251	79961	85356
5	1995-96	83758	8826	92584	100784
6	1996-97	96690	9329	106019	116212
7	1997-98	113092	9974	123066	131640
8	1998-99	134044	10901	144945	147068
9	1999-00	157721	12872	170593	162496
10	2000-01	169487	13639	183126	177924
11	2001-02	178875	17798	196673	193352
12	2002-03	188509	16323	204832	208780
13	2003-04	203218	18747	221965	224208
14	2004-05	209990	34047	244037	239636
15	2005-06	221188	35948	257136	255064

During reform period the expenditure on general services at revenue side is increasing except the last three years. During this period on an average 46.3 per cent total expenditure of centre is incurred on revenue account of general services expenditure. Capital side of general services expenditure of centre is showing comparatively insignificant contribution of total expenditure.

Chart No. 06



It is clear from table no. 07 and from the chart no. 06 also that the general services expenditure by centre is increasing in fast manner but is mostly on revenue account.

Table No : 08

General Services Expenditure by Central Government

Year	%to total			%to GDP			Per Capita		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
1991-92 to 1993-94	43.1	4.9	48.0	4.2	0.4	4.7	619.3	70.5	689.8
1994-95 to 1996-97	46.7	4.7	51.4	5.4	0.5	6.0	944.2	94.9	1039.1
1997-98 to 1999-00	49.8	4.1	54.0	7.3	0.6	7.9	1370.8	114.3	1485.1
2000-01 to 2002-03	49.0	4.3	53.3	8.4	0.7	9.1	1724.4	153.3	1877.7
2003-4 to 2005-06	42.9	5.9	48.9	8.1	1.1	9.2	1273.4	270.6	1544.0

2005-06 Revised Estimate is considered

As percentage of GDP the general services expenditure is continuously increasing on both sides capital and revenue. During 1991-92 to 1993-94 the total general services expenditure of centre was 4.73 percent of corresponding GDP. It increased up to 9.22 percent during 2003-04 to 2005-06. During these fifteen years of reforms averagely it remains at 7.4 percent of GDP.

General services expenditure of the centre is also keeping consistency with the growth of population. During 1991-93 it is 690 Rs. per head. It increased up to Rs. 1544 per head during 2003-04 to 2005-06. Per capita general service expenditure is not pointing towards any aspect of human development but actually it increasing the revenue deficit of the central government and contributes to increasing debt burden of the centre.

Growth of General Services Expenditure

Total expenditure on general services by centre computed in Log-lin model gives the following regression equation.

$$\begin{aligned} \ln GEXP_t &= 10.83612 + 0.117634_t \\ se &= (0.0482362)\ (0.005305) \\ t &= (224.646)\ (22.17296) \qquad R^2 = 0.974239. \end{aligned}$$

Where GEXP stands for General Services expenditure by centre.

In the equation the value of β_2 suggests the growth rate of 11.76 percent in general service expenditure by centre during reforms and the compound growth rate is 12.483 percent

Allocation of General Services Expenditure

Table No:09

Combined (Revenue & Capital) Expenditure on General Services by Centre

(% to respective Total Expenditure)

General services	1991-92 to 1993-94	1994-95 to 1996-97	1997-98 to 1999-00	2000-01 to 2002-03	2003-4 to 2005-06
1.Organs of State	0.42	0.47	0.55	0.44	0.45
2.Fiscal Services	1.57	1.35	1.15	0.90	0.79
3.Interest Payments	25.01	28.35	28.86	29.53	25.52
4.Admin. Services	2.97	3.02	3.30	3.20	3.39
5.Pension & Other Retirement Benefits	2.30	2.40	3.79	3.95	3.51
6.Defence Services	14.80	14.73	15.09	14.57	14.69
Total General Services Expenditure	47.07	50.33	52.74	52.59	48.34

In order to know the factors that create the burdone of expenditure and creating deficit, it will be quite proper to analyse the allocation of general service expenditure. In table no. 09 this allocation is considered. It is clear from the table that two components, interest payments and defense services are the major items of expenditure for central government. Both constitute nearly 42 percent of total expenditure and 84 percent of general services expenditure of the centre. These two components are showing constant increasing trend.

The other components of general services expenditure, organs of state, fiscal services, administrative services and pension and other retirement benefits are also showing increasing trends; fiscal services including customs, union excise duties, currency, coinage and mint have incurred with decreasing pattern of total expenditure of central government. On the contrary administrative services including secretariat General services, district administration, police, fails, stationery and printing, supplies and disposals, public works, external affairs have been allocated increasing portion of total expenditure of centre during this period. To maintain the organs of state the central government spent bellow than half percent of total expenditure. As far as fiscal services are concerned up to 1999-2000 centre spent at about 1.35 percent total expenditure. Since 2000-01 it is less than one percent. But expenditure on administrative services is constantly increasing. During fifteen years of reforms it remains at about 3.18 per cent total expenditure.

Senior citizen should be respected and protected after their retirement from the active participation in production process. It is clear from the Table No. 09 that the central government is increasingly allocating towards pension and other retirement benefits. The expenditure on this component is showing continuously increasing trend. It is partly because of increasing numbers of retirement taking the benefits of Voluntary Retirement Scheme (VRS) and partly because of inflationary pressure.

Debt Servicing and Interest Payments

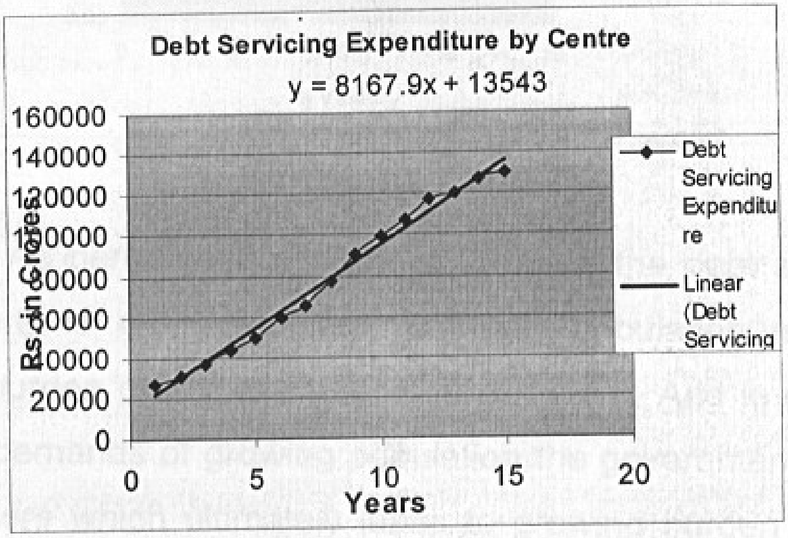
Table No:10

(Rs. In Crores)

No	Year	Interest Payments	% to total	% to GDP	Per Capita	% to Gross Tax Revenue of centre**	Trend Value y=a+bx
1	1991-92	26563	23.84	2.20	310.32	39.49	21710.90
2	1992-93	31035	25.31	2.44	355.91	41.62	29878.80
3	1993-94	36695	25.87	2.75	411.38	48.48	38046.70
4	1994-95	44049	27.40	3.10	484.05	47.73	46214.60
5	1995-96	50031	28.06	3.27	604.24	44.98	54382.50
6	1996-97	59478	29.59	3.62	628.73	46.19	62550.40
7	1997-98	65637	28.29	3.83	680.88	47.15	70718.30
8	1998-99	77882	27.88	4.28	792.29	54.16	78886.20
9	1999-00	90683	30.43	4.65	905.92	52.80	87054.10
10	2000-01	99314	30.50	4.89	974.62	52.66	95222.00
11	2001-02	107460	29.66	5.03	1035.26	57.45	103389.90
12	2002-03	117490	28.43	5.30	1113.65	54.33	111557.80
13	2003-04	120008	25.46	5.00	1118.43	47.18	119725.70
14	2004-05	126934	25.52	4.88	1164.53	41.54	127893.60
15	2005-06	130032	25.56	4.57	1174.63	35.51	136061.50

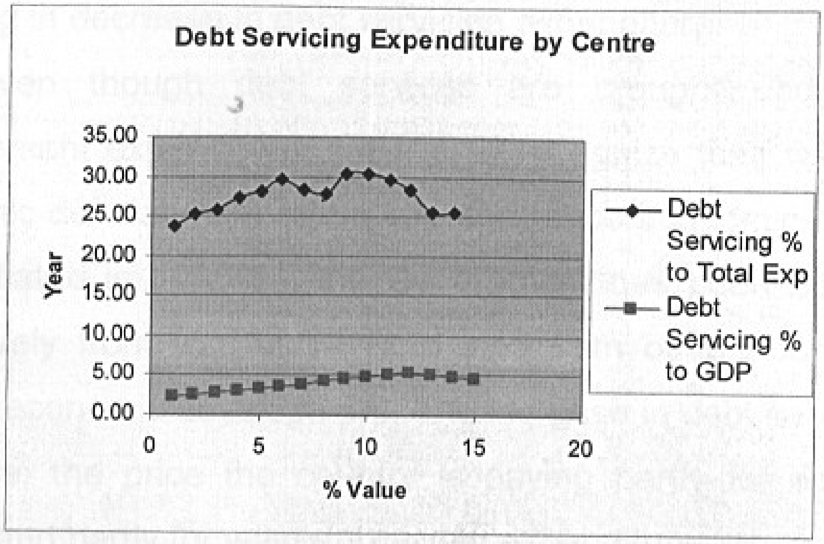
Interest payments and defence services are the two major components of expenditure in general services in particular and in total expenditure in general. We have analysed the both components to examine the trend during reform period.

Chart No. 07



Interest payment is the single largest item in central government expenditure. And this is directly due to the growing burden of debt services. In 1991-92 the debt servicing and interest payments expenditure by centre was Rs. 26563 crores which increased to Rs. 130032 crores. It is 4.9 times increase within fifteen years of reforms. At about one-fourth of total expenditure of centre is to be allocated towards debt servicing expenditure. Percentage allocation was increasing up to 1999-2000 but after 2000-01 it is slightly coming down.

Chart No. 08



As percentage of GDP in 2005-06 the debt servicing expenditure is 4.57 per cent. Growing population leads to growing burden on expenditure of government. And in order to fulfill the demands of growing population the government has to borrow more which ultimately leads to growing burden of debt servicing. The relation between growing population and growing expenditure on debt servicing can be explained with the per capita expenditure on this component. During reform period, the per capita expenditure by centre on debt servicing is increased about 3.5 times. It was Rs. 310 in 1991-92 which increased up to Rs. 1175 per head.

Nearly half of the gross tax income is going on debt servicing and it is a matter of concern. In 1991-92 centre's 39.49 percent tax income was spent on debt servicing it increased upto 57 percent in 2001-02 and went down to 35.51 in 2005-06.

After implementation of fiscal Responsibility and Budgetory Management Act 2003 the revenue deficit is going down resulting in decrease in debt servicing expenditure.

Even though debt services are brought under non-development expenditure, we should recognize their relation to economic development in the country. Since economic planning was initiated in 1950-51, the Government has been borrowing extensively from the market and also from other countries to finance economic development. The increase in debt services is, therefore, the price the country is paying partly for economic growth and partly for wasteful current expenditure[17].

Growth of Debt Servicing Expenditure

By using the data on expenditure on Debt services by centre, following regression equation is obtained.

$$\ln DEXP_t = 10.20907 + 0.118071_t$$

$$se = (0.05896)\ (0.0064853)$$

$$t = (173.1351)\ (18.20573) \qquad R^2 = 0.962259.$$

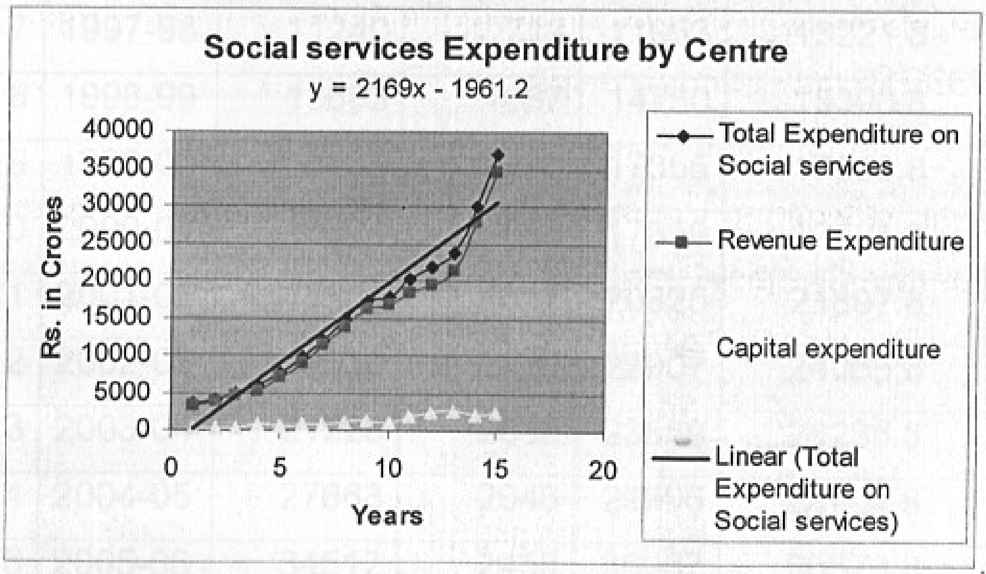
Where DEXP stands for debt servicing expenditure by centre.

The above equation shows the growth of 11.81 per cent in debt servicing expenditure by centre during reform period and the compound growth rate is 12.532 percent for the same period.

Social Services Expenditure

Social sector development assumes importance in the process of mitigating the adverse impact of the reforms on the Indian poor. As is well known, social sector development leads to human resource development apart from achieving egalitarian objectives. The Indian Eighth Five Year Plan (1992-97) document stated that the social sector development is the primary responsibility of the government particularly in the context of the ongoing economic reforms[19]. Here the question arises have the Indian Government has fulfilled this responsibility within the fifteen years of reforms.

Chart No. 10



19 Planing commission (1991), Eighth Five Year Plan 1992-97 Vol. I quoted by Sudhakar and Moss

Table No:13

Social Services expenditure by central govt

(Rs. In Crores)

No	Year	Revenue	Capital	Total	Trend Value y=a+bx
1	1991-92	3330	314	3644	207.8
2	1992-93	3750	305	4055	2376.8
3	1993-94	4498	358	4856	4545.8
4	1994-95	5146	776	5922	6714.8
5	1995-96	7107	588	7695	8883.8
6	1996-97	9014	694	9708	11052.8
7	1997-98	11240	713	11953	13221.8
8	1998-99	13683	1067	14750	15390.8
9	1999-00	16135	1220	17355	17559.8
10	2000-01	16874	985	17859	19728.8
11	2001-02	18508	1817	20325	21897.8
12	2002-03	19515	2492	22007	24066.8
13	2003-04	21226	2633	23859	26235.8
14	2004-05	27863	2043	29906	28404.8
15	2005-06	34512	2455	36967	30573.8

As far as central Government is concerned, it is clear from Table No. 13 that the expenditure on social sector as percentage of total expenditure is increasing continuously during reforms. During first three years (1991 to 1993) it was 3.3 per cent of total expenditure which increased up to 6.11 percent

during the last three years of period under study. And this increase is on both
revenue and capital account (see Table No. 14).

Table
No:14

Expenditure On Social Services By Centre

Year	%to total			%to GDP			Per Capita		
	ue	l	Total	ue	l	Total	Reven ue	Capita l	Total
1991-92 to 1993-94	3.07	0.26	3.33	0.30	0.03	0.33	44.11	3.73	47.84
1994-95 to 1996-97	3.89	0.39	4.28	0.46	0.05	0.50	79.22	7.66	86.88
1997-98 to 1999-00	5.05	0.37	5.42	0.75	0.05	0.80	138.99	10.15	149.14
2000-01 to 2002-03	5.00	0.47	5.47	0.86	0.08	0.94	176.29	16.93	193.22
2003-4 to 2005-06	5.63	0.48	6.11	1.06	0.09	1.15	255.07	21.82	276.89

2005-06 Revised Estimate figures are considered

As percentage to GDP it crossed one percent GDP level during 2003 to 2005. Central government was spending Rs. 48 per head as social service expenditure during initial years of reforms. After fifteen years it is spending Rs. 277 per head for the same purpose. The increase is 5.8 times.

There is a continuous and persistent increase in the proportion of social expenditure in the post reform period. The above analysis indicates higher priority through marginal, is given by the central Government of India. Over the post reform period in allocating the budgetary resources to the promotion of the social sector development.

Growth of Social Services Expenditure

With the help of the data on social service Expenditure by the centre, we get following regression results.

$$\ln SEXP_t = 8.099487 + 0.164013_t$$

$$se = (0.0628748)\ (0.0069153)$$

$$t = (128.8192)\ (23.7173) \qquad R^2 = 0.97741.$$

Where SEXP stands for social service expenditure by centre.

β_2 value in above regression equation shows that the social services expenditure increased annually at the rate of 16.4 percent during the reform period and the compound growth rate of social service expenditure was 17.823 percent for the same period.

Allocation of Social Services Expenditure

Social services expenditure is increasing during reform period but where it is going ? How it is being spent ? In order to guage the quality aspect of social services expenditure we have to peep in to the allocation of the same.

It will be clear from the Table No. 15 that Education, Sports, Art and Culture are the major sub-component in social services expenditure by the centre. Nearly 38 percent of social services expenditure is spent on this title by the centre. Avergely 2 percent of total expenditure is spent on the same title during reform period. And it has sharp increasing trend.

Beside Education, sport and culture; medical and public health, water supply and sanitation, urban development family welfare are the other sub component which are showing increasing trends during reforms. Expanding process of urbanization and growing population causing increase in expenditure for those titles.

Expenditure on housing, social security welfare have mixed trend. As a part of total expenditure by centre it increased upto 1999-00 and started decreasing after that. Two important sub-component welfare of SC,ST and OBC and Labour and employment have mostly decreasing trend as percentage to total expenditure during reform period. Comparatively very negligible part of total expenditure is spent on nutrition.

Table No:15

Combined (Revinue & Capital) Expenditure On Social Services by Centre

(% to respective total Expenditure)

Social Services	1991-92 to 1993-94	1994-95 to 1996-97	1997-98 to 1999-00	2000-01 to 2002-03	2003-4 to 2005-06
1.Education,Sports,Art &Culture	1.254	1.619	2.075	2.130	2.701
2.Medical & Public Health	0.386	0.442	0.504	0.555	0.587
3.Family Welfare	0.061	0.082	0.142	0.202	0.378
4.Water supply & Sanitation	0.024	0.158	0.223	0.242	0.346
5.Housing	0.078	0.384	0.755	0.705	0.671
6.Urban Development	0.019	0.039	0.083	0.248	0.344
7.Information & Publicity	0.073	0.075	0.070	0.058	0.048
8.Broadcasting	0.564	0.532	0.520	0.308	0.234
9.Welfare of SC,ST & OBC	0.062	0.145	0.124	0.068	0.054
10.Lobour & Employment	0.299	0.268	0.258	0.227	0.205
11.Social Security & Welfare	0.267	0.429	0.453	0.340	0.341
12.Nutrition	0.003	0.003	0.002	0.002	0.002
13.Relief on account of Natural Calamities	0.000	0.069	0.175	0.354	0.171
14.Other Social Services	0.008	0.004	0.004	0.005	0.005
15.Secretariat-Social Services	0.025	0.026	0.030	0.029	0.021
Total Social Services	3.33	4.28	5.42	5.47	6.12

2005-06 Revised Estimate figures are considered

Medical and public health

It is clear from the Table No. 16 that the expenditure on health by the centre is mostly on revenue account which doesn't create any asset for community health sector. In 1991-92 Rs. 375 crs. were spent on revenue account of public health expenditure by centre which increased up to Rs. 3239 crores. in 2005-06. 8.6 times increase within fifteen years. Beside this the expenditure on capital account by centre is showing very fluctuating strends and it has very minor proportion in total expenditure on health by centre during the same period. This fact is clearly revealed in Chart No. 11.

Chart No. 11

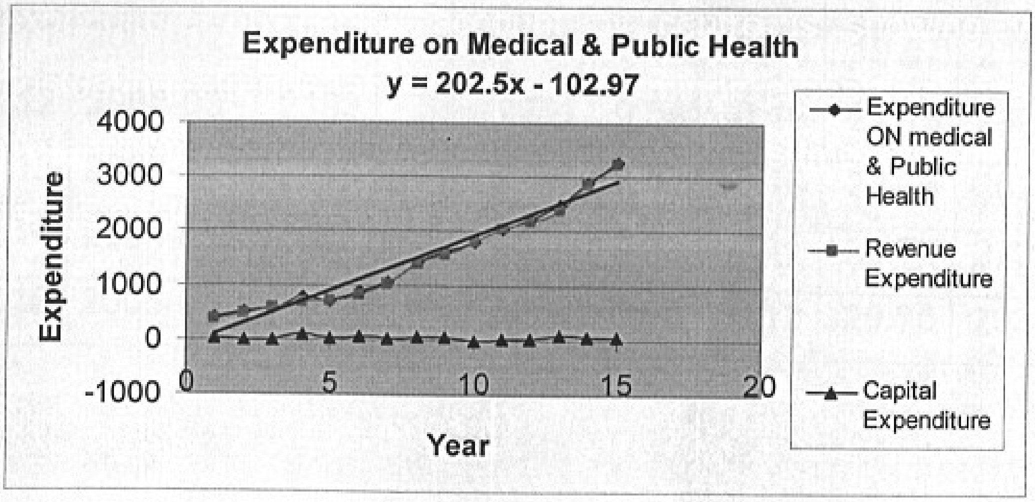


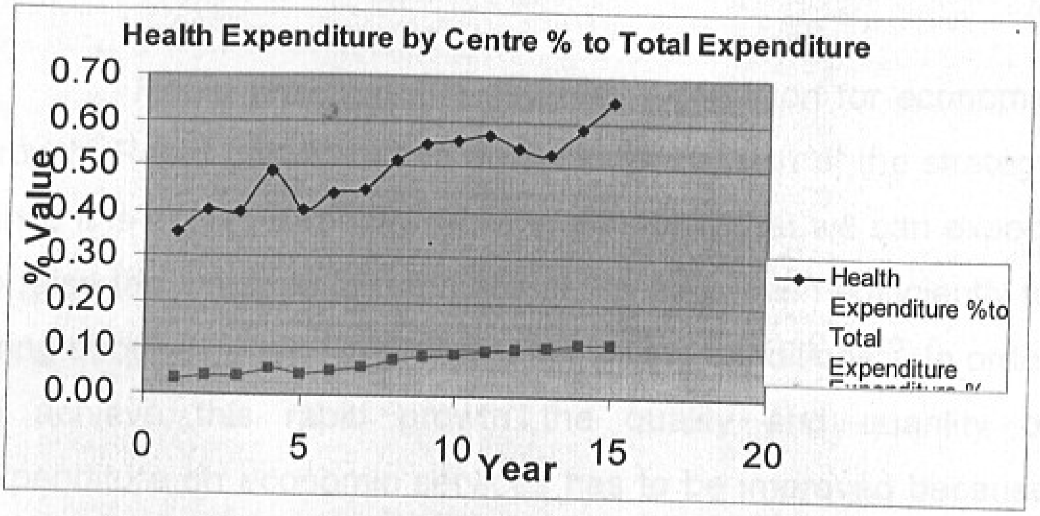
Table No:16

Expenditure incurred on Medical & Public Health by Centre

(Rs. In Crores)

No.	Year	Revenue Expenditure	Capital Expenditure	Total Expenditure	%to Total Expenditure	% to GDP	Per Capita Expenditure	Trend Value y=a+bx
1	1991-92	375	20	395	0.35	0.03	4.61	99.53
2	1992-93	489	6	495	0.40	0.04	5.68	302.03
3	1993-94	565	3	568	0.40	0.04	6.37	504.53
4	1994-95	691	91	782	0.49	0.05	8.59	707.03
5	1995-96	703	12	715	0.40	0.05	8.64	909.53
6	1996-97	822	61	883	0.44	0.05	9.33	1112.03
7	1997-98	1013	26	1039	0.45	0.06	10.78	1314.53
8	1998-99	1381	57	1438	0.51	0.08	14.63	1517.03
9	1999-00	1581	56	1637	0.55	0.08	16.35	1719.53
10	2000-01	1823	-11	1812	0.56	0.09	17.78	1922.03
11	2001-02	2033	29	2062	0.57	0.10	19.87	2124.53
12	2002-03	2193	38	2231	0.54	0.10	21.15	2327.03
13	2003-04	2398	97	2495	0.53	0.10	23.25	2529.53
14	2004-05	2866	49	2915	0.59	0.11	26.74	2732.03
15	2005-06	3239	49	3288	0.65	0.12	29.70	2934.53

Chart No. 12



As a percentage of total centre's expenditure the expenditure on medical and public health is increasing from 1991-92 to 2005-06 (see Chart No. 12). It increased from 0.35 percent to 0.65 percent of total expenditure. It is also keeping pace with increasing GDP..

Growth of Health Services Expenditure

Expenditure on Health Services by centre gives the following regression results.

$$\ln HEXP_t = 5.922949 + 0.150483_t$$

$$se = (0.0476346)\ (0.0052391)$$

$$t = (124.3412)\ (28.7229) \qquad R^2 = 0.984487.$$

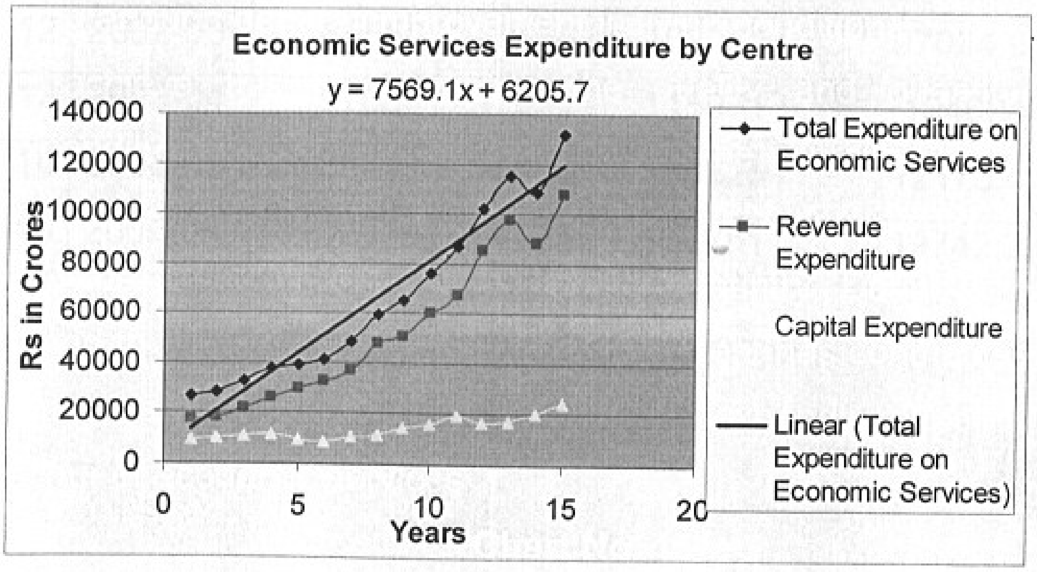
Where HEXP stands for Health expenditure by centre.

β_2 value in the above equation gives the 15.05 percent annual growth rate in health service expenditure by the central government and the compound growth rate 16.239 percent for health expenditure.

Economic Services

Rapid growth is the necessary condition for economic growth. Rapid growth has to be an essential part of the strategy since it is only in a rapidly growing economy that we can expect to raise the incomes of the mass of the population sufficiently to bring about a general improvement in living conditions[20]. In order to achieve this rapid growth the quality and quantity of expenditure on economic services has to be improved because it has direct relation with production process, ultimately it relates with the economic development of the country. During reform period to what extent the central Government has contributed to push this rapid growth by allocating its expenditure policy in favour of economic services ?

Chart No. 15



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*Planning Commission (2006) An Approach to the 11th Five Year Plan, P.1

Table No:18

Expenditure on Economic Services by Centre

(Rs. In Crores)

No	Year	Revenue	Capital	Total	Trend Value y=a+bx
1	1991-92	17410	9275	26685	13774.8
2	1992-93	18143	10437	28580	21343.9
3	1993-94	21445	11168	32613	28913
4	1994-95	26410	11473	37883	36482.1
5	1995-96	30039	9372	39411	44051.2
6	1996-97	32717	8777	41494	51620.3
7	1997-98	37244	11205	48449	59189.4
8	1998-99	47567	11668	59235	66758.5
9	1999-00	50854	14524	65378	74327.6
10	2000-01	60430	15737	76167	81896.7
11	2001-02	67516	19708	87224	89465.8
12	2002-03	85555	16556	102111	97034.9
13	2003-04	97689	17382	115071	104604
14	2004-05	88413	20412	108825	112173.1
15	2005-06	107876	24375	132251	119742.2

It will be clear from the Table No.19 that one fourth of the central government expenditure was allocated to economic service during the said period. Up to 1999-00 it was slightly declining as a percentage of total expenditure but within next six years the centre could recovered by enhancing the allocation in favour. If we analyse this expenditure as revenue account and capital account expenditure, it shows opposite trends within. While the revenue expenditure on economic services by centre is increasing (from 15 per cent to 20 per cent for first three years to last three years) the expenditure on capital account is decreasing at the same time. (from 8 percent to 4 per cent for the same period). As far as long term economic growth is concerned, it is an undeserved trend. Total allocation to economic services increased from 2.30 percent of GDP to 4.54 percent of GDP within fifteen years of reforms.

Table No.:19

Expenditure on Economic Services by Centre

Year	%to total			%to GDP			Per Capita		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
1991-92 to 1993-94	15.18	8.24	23.42	1.49	0.81	2.30	217.29	117.75	335.04
1994-95 to 1996-97	16.52	5.59	22.11	1.94	0.65	2.59	332.95	110.68	443.63
1997-98 to 1999-00	16.71	4.63	21.34	2.47	0.68	3.15	459.43	126.68	586.10
2000-01 to 2002-03	19.30	4.76	24.06	3.33	0.81	4.15	684.81	167.08	851.88
2003-4 to 2005-06	19.90	4.19	24.10	3.75	0.79	4.54	898.68	189.82	1088.50

Per capita expenditure is in absolute figure and so they reveal a different picture. Economic services expenditure on both account revenue and capital is increasing. As total per capita expenditure on economic services is increased from Rs. 335 to Rs. 1088 and it is 3.3 times increase.

Allocation of expenditure on Economic Services by centre.

Economic expenditure as percentage to total expenditure is increasing but where it is actually going? Table No.20 shows the allocation of the expenditure on economic services (combined-revenue and capital) by centre. The table reveals that the expenditure on few heads (particularly agricultural and allied activities, rural development, special area programmes, transport and communication, science technology and environment) is increasing. Besides this the components like irrigation and flood control, energy, village and small industries, general economic services, are the major loosers in allocation of economic expenditure.

Expenditure on agricultural and allied activities increased rapidly from 6 percent to 7 percent of total expenditure, and this is expected for this period. But the expenditure on rural development as a percentage to total expenditure by centre is showing very discontinuous trend. During initial three years of reforms, the rural development expenditure was at it lowest. For next period, it increased and is maintained near 2 to 2.5 percent.

Table No. 20

Combined (Revinue & Capital) Expenditure On Economic Services by Centre					
(% to respective total Expenditure)					
Economic Services	**1991-92 to 1993-94**	**1994-95 to 1996-97**	**1997-98 to 1999-00**	**2000-01 to 2002-03**	**2003-04 to 2005-06**
1.Agricultural & allied actvities	5.90	5.67	5.72	6.87	7.15
3.Rural Development	0.60	2.65	1.89	1.95	2.42
4.Special areas program	0.23	0.57	0.44	0.64	0.94
5.Irrigation & flood control	0.12	0.10	0.10	0.11	0.08
6.Energy	3.51	2.90	2.42	1.48	1.96
7.Village & small industries	0.55	0.56	0.39	0.29	0.32
8.Transport & communication	3.18	2.52	3.39	5.52	5.35
9.Science ,technology &environment	1.25	1.20	1.19	1.26	1.43
10.General economic services	1.82	1.31	1.14	0.70	0.96
Total economic services	23.42	22.11	21.34	24.06	24.10
2005-06 Revised Estimate figures are considered					

Generally rural development expenditure is allocated to sub components like special programmes for rural development, rural employment and other expenditure. Expenditure on special area program is also increasing during this period.

Actually irrigation is productive and flood control is protective expenditure. As it can be viewed as combined economic expenditure, flood control expenditure can be a part of social expenditure. But here as an economic expenditure irrigation expenditure is allocated as major and medium irrigation, minor irrigation and flood control expenditure. It is decreasing during reforms (from 0.12 per cent to 0.08 percent of total within fifteen years). Energy is the major component which showing decreasing trend.

Transport and communication and science, technology and environment are the other two important component which are being allocated to the total expenditure of centre with increasing trend.

Growth of Economic Expenditure

We get the following regression results for economic expenditure by centre during reforms.

$$\ln ECX_t = 10.02331 + 0.119266_t$$

$$se = (0.032472)\ (0.00357149)$$

$$t = (308.6707)\ (33.3939) \qquad R^2 = 0.988477.$$

Where ECEX stands for economic expenditure of central Government.

The interpretation of the above equation is that expenditure on services by centre increased at the rate of 11.93

percent annually during reform period. The calculated compound growth rate during the same period was 12.67 percent.

Agricultural & Allied Activities

Capital inadequacy, lack of infrastructural support and demand side constraints, such as control on movement, storage and sale of agricultural products, etc. have continued to affect the economic viability of agriculture sector. Consequently growth has also tended to slacken during the nineties[21]. This growth of agriculture sector have largely affected the overall growth of Indian economy during reforms and prior to it.

After reforms the expenditure on agriculture sector by central government is showing increasing trend (Table No. 21). It is increasing continuously in absolute as well as in relative terms. In 1991-92 total expenditure an agricultural and allied activities by centre was Rs. 6912 crores. which increased up to Rs. 36641 crores. It is 5.3 times increase. But the expenditure on revenue and capital accounts have different story. Chart No. 16 shows that Expenditure on revenue account is increasing fast while it is an capital account have all over decreasing trend after

21 Policy document – National Agricultural Policy (2000) quoted by Datta. Sundharam – Indian Economy (55th edi.) P-488.

1994-95. Overall allocation to capital account is so low that the revenue expenditure curve of agriculture envelopes the total expenditure curve.

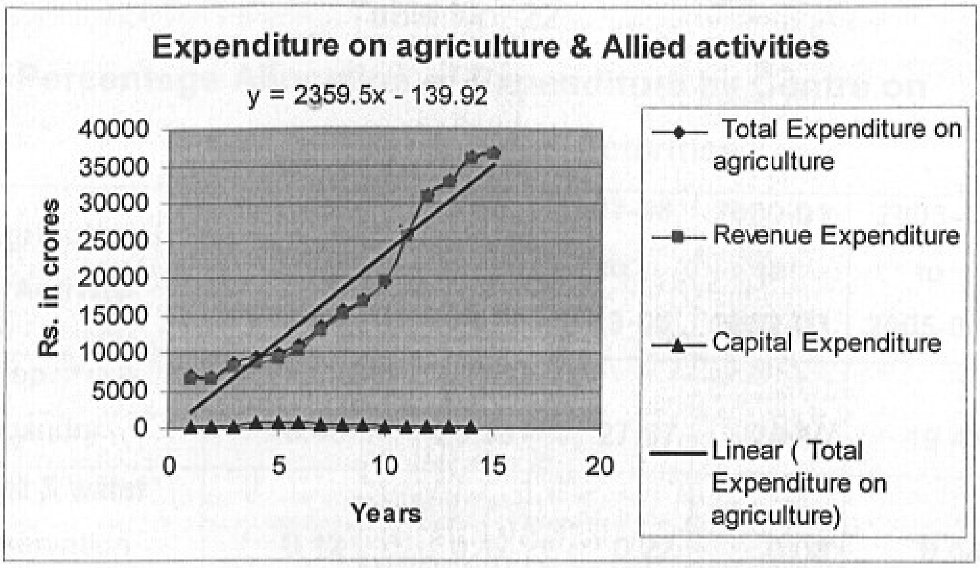
Table No:21

Expenditure Incurred on Agricultural & Allied Activities by Centre.

(Rs. In Crores)

No	Year	Revenue	Capital	Total	% to Total Expenditure	% to GDP	Per Capita Expenditure	Trend Value y=a+bx
1	1991-92	6530	382	6912	6.20	0.57	80.75	2219.58
2	1992-93	6355	374	6729	5.49	0.53	77.17	4579.08
3	1993-94	8146	391	8537	6.02	0.64	95.71	6938.58
4	1994-95	8576	896	9472	5.89	0.67	104.09	9298.08
5	1995-96	9236	814	10050	5.64	0.66	121.38	11657.58
6	1996-97	10365	677	11042	5.49	0.67	116.72	14017.08
7	1997-98	12875	600	13475	5.81	0.79	139.78	16376.58
8	1998-99	15092	555	15647	5.60	0.86	159.18	18736.08
9	1999-00	16697	441	17138	5.75	0.88	171.21	21095.58
10	2000-01	19331	197	19528	6.00	0.96	191.64	23455.08
11	2001-02	25449	264	25713	7.10	1.20	247.72	25814.58
12	2002-03	30831	246	31077	7.52	1.40	294.57	28174.08
13	2003-04	32746	155	32901	6.98	1.37	306.63	30533.58
14	2004-05	36014	163	36177	7.27	1.39	331.90	32893.08
15	2005-06	36491	150	36641	7.20	1.29	330.99	35252.58

Chart No. 16



As percentage of total expenditure, the Agricultural and allied activities is showing mixed trends. As a percentage of total up to 1998-99, it was decreasing and after that it is increasing up to 2002-03 and again declining. Comparatively as percentage to GDP, it is increasing continuously. Expenditure on agricultural and allied activities is keeping pace with the growth of the population.

Allocation of Expenditure on Agriculture

Allocation of expenditure on agriculture and allied activities shows that most of this expenditure by centre goes on maintaining food security of India. This expenditure directly relates to minimum support price policy and distribution of food items through PDS. This policy is implemented with the help of state governments. Therefore beside social aspect it has, as a part of agriculture it is considered as an economic expenditure. The expenditure on food is showing very fast increasing trends.

Table No. 22

Percentage Allocation of Expenditure by Centre on Agricultural & Allied Activities

Agricultural Activity	1991-92 to 1993-94	1994-95 to 1996-97	1997-98 to 1999-00	2000-01 to 2002-03	2003-4 to 2005-06
1.Crop husbandry	16.46	25.33	27.57	20.80	19.43
2.Soil & water conservation	0.12	0.17	0.22	0.08	0.04
3.Animal husbandry	0.23	0.31	0.23	0.29	0.42
4.Dairy development	3.60	2.55	1.09	0.45	0.22
5.Fishries	0.57	0.35	0.36	0.27	0.21
6.Forestry & wild life	0.98	1.04	0.84	0.78	1.10
7.Plantation	1.07	1.01	0.99	0.89	1.29
8.Food, storage & warehousing	51.79	56.02	58.87	70.21	71.42
9.Agricultural research & education	5.15	5.22	6.32	5.20	4.55
10.Co-operation	2.99	2.92	1.50	0.40	0.42
11.Othres	17.04	5.09	2.01	0.61	0.90
Total	100	100	100	100	100

During initial three years about 52 percent agricultural expenditure by centre was spent on food, storage and warehousing. While continuously increasing, it reached up to 72 percent during last three years of period under consideration. Second largest item in agricultural and allied activities components is crop husbandry which again relates to food policy. The allocation on crop husbandry was increasing up to 1999-00 and then started marginally declining. On an average 22 per cent agricultural expenditure spent on crop husbandry is by centre.

The expenditure on agricultural research and education increased up to 1999-00 but last six years it is decreasing. In order to execute the second green revolution, the research activities must be carried on with increasing manner. For that centre's contribution should be increased.

The expenditure by centre on dairy development, co-operation and fisheries is decreased during reform period as percentage of total agricultural expenditure by centre. The expenditure on soil and water conservation animal husbandry, forestry and wild life have mixed trends during the period under consideration.

Growth of Expenditure on Agriculture

Following regression results are got for the agricultural expenditure by centre during reforms.

$$\ln AGEX_t = 8.602181 + 0.133801_t$$

$$se = (0.0416387)\ (0.00457965)$$

$$t = (206.590)\ (29.21648) \qquad R^2 = 0.992471.$$

Where AGEX stands for agricultural expenditure by central Government.

The above equation gives the β_2 value 0.133801 which ultimately gives the annual growth of 13.38 percent for agricultural expenditure by the centre and this value gives the compound growth rate 14.31 percent for the same.

Summary :

During reform period the total expenditure by centre is showing high growth trend. But the inner trends have different shapes. If this expenditure is viewed as capital investment or as developmental aspect, it is showing decreasing trend. When we study if as it's functional classification, more than fifty percent expenditure is being spent on general services. And it is mostly due to the increasing expenditure on debt servicing and defence. The expenditure on social services is increasing but it has inconsistent internal trends. Among the economic services expenditure by centre, the expenditure on energy is showing decreasing trend during reforms and it is very unhealthy trend for economic development of the country.

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5. Findings, Suggestions and Conclusion

Findings

The data on central government expenditure in India, after the implementation of new economic policy, was analysed in details. Based on the analysis the following observations are made.

1) The central governments total expenditure has a expanded 4.5 times within the fifteen years of reforms. It is showing a continuous increasing trend. The ratio of percentage of public expenditure to GDP is also observed to be increasing in three years.

2) The expansion of non-plan expenditure during reform period is the same as total expenditure i.e. 4.5 times during the period. From 1991-1992 to 2005-2006 more than seventy percent of centres expenditure is on non-plan expenditure.

3) The plan expenditure of centre has remained below thirty percent during reform period. It is also showing increasing trend but lower than non-plan expenditure. The central Government has not changed its expenditure pattern during reform period as far as the classification plan and non-plan is concerned.

4) During reform period about 79 percent of total expenditure is on revenue account. It increased by 5.3 times from 1991-92 to 2005-2006. Besides this capital expenditure by centre is showing decreasing trend during reform. It increased only by 2.3 times (lower than revenue expenditure) during the same period.

5) As far as the classification of central government's expenditure in developmental and non-developmental is concerned, the developmental expenditure decreased from 51.81 percent to 40.55 percent giving the scope to rise the non-developmental expenditure.

6) Expenditure on general services is the highest expenditure head in centre's total expenditure within the fifteen years of reforms. It remains at nearly 52 per cent. It is due to its heavy sub-components like debt servicing and defence. Expenditure on social services is the lowest one in centre's total expenditure.

7) Expenditure on general services is showing growing trend upto 2002-03. It has come down only for last three years i.e. 2003 to 2006.

8) More than fifty percent of general services expenditure is debt servicing expenditure. Below that the defence services expenditure is there. Within the general services, the expenditure on organs of the state, fiscal services, administrative services, and pension and other retirement benefits have a comparatively lower portion. Within these the

expenditure on administrative services and pension and retirement benefits is showing increasing trend while the expenditure on fiscal services is decreasing during the period under consideration.

9) Debt servicing expenditure is increased by nearly 4 percent during reforms. But as a percentage of total expenditure of the centre it has come down slightly since 2000-01. From 1991-92 to 2005-2006 averagely 47.4 percent of tax revenue of the centre is spent for debt servicing.

10) The expenditure on social services has increasing trends as percentage to total expenditure of the centre, percentage to GDP and per-capita expenditure during reform period. The increment is on both account revenue and capital. It increase 5.8 times during the same period.

11) Education, sports, art and culture is the largest expenditure sub-component in social services expenditure. It has sharp increasing trend during reform period. The medical and public health, water supply and sanitation. Urban development, family welfare are the other sub-component which are showing increasing trend of expenditure by centre during the same period.

12) The expenditure on economic service by centre was decreasing up to 1999-00 since 1991-92 but after that it increased and have stable trend as percentage total expenditure. It is also increasing as a percentage to GDP. It

increased nearly three times as per capita expenditure during reform period.

13) The allocation of the expenditure shows that the expenditure an agricultural and allied activities, rural development, special area programmes, transport and communication science, technology and environment is increasing but the expenditure on irrigation and flood control, energy, village and small industries and general economic services like foreign trade, export promotion and civil supplies etc. are the loosers in allocation of economic expenditure.

14) Nearly 6 to 7 percentage of total expenditure is spent on agriculture and allied activities by centre during reform period. It is all over increasing trend as percentage to total expenditure, percentage to GDP and per capita expenditure. On absolute level it increased 5.3 times within fifteen years of reforms. But up to 95 to 99 percent of expenditure on agriculture by the centre is on revenue account.

15) Percentage allocation of expenditure on agriculture shows that the expenditure goes on mostly food, storage and warehousing. It varies from 52 percentage to 72 percent with increasing trend, from 1991-92 to 2005-2006, the average is 62 percent of the total expenditure on agriculture. This is because this expenditure is directly related to minimum support price policy of the government.

16) The expenditure on soil and water conservation, animal husbandry, forestry and wild life have mixed trends while the expenditure on dairy development, fishries and co-operation is

decreasing as far as the allocation of expenditure by centre is concerned.

Suggestions / Policy Implications

New Economic Policy was started with some objectives and aims. While launching the structured Adjustment Programmed (SAP) the Government assured the growth with human face. Public expenditure is one of the instruments to fulfill those objectives. But when the central Government expenditure for fifteen years of reforms is studied, it revealed some unhealthy trends. In order to achieve the goal these unhealthy trends have to be removed in forthcoming years. For this purpose the following suggestions are made

1) Hard earned money of tax payers should be used in productive ways. The central Government should be careful while allocating the public expenditure. It is accepted that in order to run the government machinery the revenue expenditure is expected and unavoidable. But if we are concern about the future of out economy. The capital investments in many sectors are necessary. Therefore the centre should have to consider this aspect. Most of the unplanned expenditure goes for non-developmental activities. So in order to control revenue

expenditure the government should stick to its plans as far as possible. It will save the wastage of money.

2) In order to control revenue expenditure the central Government should keep the debt servicing expenditure under control because if consumes major part of revenue as well as total expenditure. For this the centre has to observe minimum deficit in its budgets. Strict implementation of Fiscal Responsibility and Budgetary Management Law is necessary is this regard.

3) Social sector expenditure is increasing but it needs the reshape of prioritization. Medical and public health, water supply and sanitation have to be given more priority than present one and if is the need of today's social problems.

4) Energy is the key aspect of economic growth for India today. We have to be self sufficient in this regard in forthcoming years. In order to execute the large energy project the central Government has to invest more and more money. After reforms all the sectors of Indian economy are expanding with light growth rate and with their expansion their energy need are expanding in great manner. To meet their needs the centre should have to immediately concentrate on erection of energy project.

5) Village and small industries have major potential to create employment opportunities so this sector should be viewed

as a source of job creation. During reforms the expenditure on this sub component by centre is showing declining trend. Actually in this period of globalization these industries need to be encouraged. The central Government has to spend to create the favorable surrounding to encourage these industries.

6) There is a need to increase the spending on foreign trade and export promotion by centre during reform period. Although the government have many limitations as a member of WTO to give concessions and direct help to exporter, but the government can arrange the programmers for the encouragement to exporters in India. The programmed like arrangement of trade fares, non monetary assistance can be arranged is this regard.

7) More than fifty percent of expenditure on agricultural and allied activities by centre is allocated to food storage by centre is allocated to food storage and warehousing only. This huge expenditure can be saved and utilized for more useful purposed in this sector like research activities dairy development plantation soil and water conservation etc. It will help to boost the growth rate of Indian agricultural sector. Food stamps scheme introduced in tenth five year plan could be an alternative for the public distribution system. If could have saved huge money which is going on storing and warehousing of food. Yet the Central

Government can convince state Governments for the implementation of this scheme.

Conclusion

The government has to interfere in the market in order to maintain stabilization and to let the benefits to reach out to maximum members of the society either equally or as they participate in the market functions. Public expenditure is on of the instruments of having direct or indirect interference in the market by government. While spending; the government has to be very careful in order to create economic and social justice in the society and for this if can observe the criterion of public expenditure i.e. canons of public expenditure as it is called in the economic literature. The economy can be positively affected and guided by the public expenditure if it is done in proper manner. In order to enhance the productivity of public expenditure and to avoid the wastages, the techniques like performance and program budgeting system (PPBS) and Zero Based Budgeting (ZBB) are recently developed and following worldwide.

In 1991 the policy of Liberalization Privatization and Globalization was accepted and implemented in India. This policy brought out structural changes in Indian Economy It ruled out Government's each and every decision and public expenditure had no excuse. We analyzed particularly the central government expenditure in order to gauge it's growth, patterns and also time pattern growth in Central Government expenditure during reforms and it is the indicator of active participation of the government after the implementation of New Economic policy. We also found that there are some undesired trends in Central Government expenditure during reform period and in order to obtain the long term goals of the New Economic Policy such demission and directions should be curtailed in order to remain on the desired growth path.

Bibliography

1) Abdel Aziz Mahjoub (2001) : The place of Inflationary Finance in Public Decision. The case of sub – Saharan African Countries, Finance India, Vo. XV No.3, 835 – 853.

2) A Premchand, Control of Public Expenditure in India Allied Publishers, Second edi 1966

3) Archana R. Dholakia, Ravindra H. Dholakia (2004): Expenditure Allocation and Welfare Returns to Government – A Suggested Model, Economic and Political Weekly, June 2004, 2386 – 2394.

4) Ban Ki – moon (2007) : Bali and beyond a new green Economics, The Hindu, 4 Dec. 2007. PP – 9

5) Christos Kollias, George Manolas, Suzanna – Maria Paleologou (2004): Defence expenditure and economic growth in the European Union – A casuality analysis, Journal of Policy Modeling 26, 553 – 569.

6) Douglas Haltz – Eakin, Mary E Lovely, Mehments. Tosun (2004): Generational Conflict, fiscal policy and economic growth, Journal of Macroeconomics. 26 (2004) 1-23.

7) Dr. Raghuram G. Rajan (2006) : India : seeing the Future in its past – the lectured delivered in the Forums Golden Jubilee series on 20th January 2006 in Mumbai published by Forum of free Enterprise.

8) Errol D'souza (2006) : Outlays, Inequality and Growth, Economic and Political Weekly, Vol XLI No. 10 Page No. 857 – 860

9) Grabriella Legrenzi, Costas Milas (2002): A Multivariate Approach to the Growth of Governments, public Finance Reciew, Vol – 30 No-1 56 – 76

10) H.L. Bhatia, Public Finance (23rd edition), Vikas Publishing House Pvt. Ltd.

11) Kaipa Narayana Reddy, The Growth of Public Expenditure in India 1872 – 1698, Sterling Publishers (p) Ltd. First edi 1972.

12) Kathleen N. Day, Rose Anne Devlin (2004) : Do government expenditures crowd out corporate contributions? Vol-32, No : 4, 404 – 425.

13) Mahnaz Fatima, Sameen Rafi and Ashfaque Khan (1999) : A test of Wagner's Law in Pakistan An Application of co-integration and Error Correction Modeling. The Indian Economic Journal, Volume 46, No.4, P. 11 – 125.

14) Michael Marlow, Alden F. Shiers (2001) : Do crime Related Expenditures Crowd out Higher Education Expenditures? Public Finance Review Vol – 29, No.5, 369 – 393.

15) M.L. Seth (!997) : Money, Banking, International Trade and public Finance, L.N. Agrawal, Agra.

16) N. Dritsakis (2004): Defence Spending and economic growth An empirical investigation for Greece and Turkey, Journal of policy Modeling 26, 249 – 264.

17) Pravakar Sahoo (2001): Wagner's Hypothesis – Further Empirical Evidence from India, Journal of Indian School of Political Economy, Vol – 13 No .1 Page no. 45 – 53.

18) Raghbendra Jha ; Modern Theory of Public Finance wiley Eastern Limited. (1987)

19) Rati Ram (2005) : Openness and Government size – Additional Evidence from Multicountry Data, Public Finance / Finance Publiques, Vol – 54 (1-2) PP 21 – 36
20) Richard A. Musgrave, The Theory of Public Finance, McGraw – Hill Book Company (1959)
21) R.N. Bhargava (1971) : The Theory and Working of Union Finance in India 3/9 Chaitanya Publishing House Allahabad.
22) Rosella Levaggi (2002) : Decentralized Budgeting Procedures for Public Expenditure, Public Finance Review, Vol- 30, No-4, 273-295.
23) Ruddar Datta, K.P.M. Sundaram, Indian Economy (55th Edition) S. Chand and Company Ltd, N. Delhi.
24) Sadanand Prusty (2001) : Fiscal Policy and Inflation in India – A further Empircal Abalysis, Journal of India School of Political Economy Vol – 13 No – 2 , 255 – 276
25) Sajikumar Tulsidharan (2006) : Government expenditure and economic growth in India (1960 to 2000) Public Finance Vol. XX No. 1, page 169 – 179
26) Seema Joshi (2006) : Impact of economic Reforms on social sector Expenditure in India, Economic and Political Weekly, Jan. 2006, 358-365
27) S. K. Modak Pulic Finance and Policy (first edi. 1978) Sheth Publishers Mumbai.
28) Somaya M. Tohamy (2005): Does Wagner's law hold for Middle Eastern Countries? Public Finance / Finance Publiques, Vol – 54 Pages No. 99-113

29) S. Sudhakar, A.G. Moss (198): Social Expenditure in India, Pre and post Reform Period – A Comparative Analysis, Finance India Vol – 12 No.1 page 79 – 135.

30) Takero Dot (2006): Cutting down an inefficient public expenditure and central bank independence, Keio Economic Studies, 43 (1) 1-19

31) Therese A. Mccarty, Stephen government finance public finance Review, vol – 29 No. 3, page 208 – 222

32) Vito Tanzi (2004): Globalization and the need fiscal reform in developing countries, Journal of policy Modeling 26, 225 – 542.
