

An Analysis of the Central Government Expenditure Pattern and Its Impact on Economic Growth in India

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Abstract

Public expenditure plays a vital role in shaping a nation's economic performance. In India, the central government's spending patterns reflect the priorities of development, social welfare, infrastructure, defense, and economic stability. Analyzing these patterns over time helps to assess how effectively public funds are allocated and whether they contribute positively to economic growth. This study aims to examine the trends in central government expenditure across major sectors and evaluate its impact on the country's GDP growth, with a focus on both capital and revenue expenditures. It also seeks to explore the efficiency and sustainability of fiscal policy in promoting inclusive and balanced economic development. This study considers three key macroeconomic indicators to represent the economic growth of India: Gross Domestic Product (GDP), Economic Services, and Social Services. The data used in the analysis is secondary in nature and has been sourced from official websites of the Government of India and nationally recognized statistical organizations. The analysis was conducted using the exponential growth model with the aid of SPSS software. According to the results, central government expenditure has grown positively at an average rate of 9.5% during the study period, and this growth is statistically significant at the 1% level. The model demonstrates a high goodness-of-fit value of 97.3%, indicating a strong explanatory power. However, we reject the null hypothesis. Hence, this result implies that there is a significant impact of central government expenditure on economic growth in India.

Keywords: Structure, Development Expenditure, Non-Development Expenditure, GDP, and Capital Expenditure.

Introduction

India's economic growth was estimated at 9.2 percent in 2022–23, the highest among all major economies. This strong rebound and recovery from the adverse effects of the COVID-19 pandemic reflects the country's remarkable economic resilience. In this context, public expenditure plays a vital role in the economic development of a country like India. With the growing responsibilities of the government and its increasing

participation in economic activities, the volume of public expenditure in a highly populated country like India has been rising at a rapid pace. Public expenditure is broadly classified into two categories: developmental and non-developmental. Developmental expenditure primarily focuses on activities that contribute to economic and social progress, such as the development of infrastructure, industry, health care facilities, and educational institutions. In contrast, non-developmental expenditure is largely maintenance-oriented and includes spending on law and order, defense, and administrative services.

The size of the government is expected to affect the economic growth of a country through the impact of taxation, expenditure and budget balance on several economic issues such as the efficiency of resource allocation and the rate of factor accumulation. Public expenditures refer broadly to expenditure made by Local, State and national Government and agencies as distinct from those of private in individuals, organization of firms. These expenditures were usually broadly categorized into recurrent and capital expenditures. Recurrent expenditure corresponded to government's purchase of current goods and services (labour, consumables, wages and salaries, etc.), while the capital expenditure would ideally include not merely investments in infrastructure (roads, schools, hospitals, etc.) but also all other expenditures that might contribute to development.

Objectives of the Study

1. To study the performance of central government expenditure in the Indian economy.
2. To study the trends in central government expenditure patterns and their impact on economic growth in India.

Hypothesis of the Study

1. There is a significant impact of central government expenditure on economic growth in India.

Materials and Methods

The present study is mainly based on secondary data. The secondary data has been collected from the various annual reports of RBI, Handbook of Statistics on Indian Economy, Union Budget of 2022-23, Economic Survey of India (2021-22), Public Debt Statistics, Controller General of Accounts, Database on Indian Economy, reputed journals and articles, published theses, newspapers, websites, etc. The simple statistical tools of the study for the secondary data like percentage, average, Annual Growth Rate (AGR), and Compound Annual Growth Rate (CAGR), exponential growth model were carried out. This study has been used exponential growth model to analyse the growth and trends of central government expenditure pattern for economic growth.

Performance and Growth of Central Government Expenditure Pattern in India

The central government expenditures serve a wide range of purposes, such as providing health care, education and justice services to the population, and maintaining public order and safety. Looking at expenditures by function can show government's priorities and challenges, as well as track their evolution over time. The ministries with the 13 highest allocations account for 53% of the total budgeted expenditure in 2021-22. Of these, the Ministry of Defence has the highest allocation in 2021-22 at Rs.4,78,196 crore (14% of the total budgeted expenditure of the government). Other Ministries with high allocation include: (i) Consumer Affairs, Food and Public Distribution, (ii) Home Affairs, (iii) Rural Development, and (iv) Agriculture and Farmers' Welfare. Table 5 shows the expenditure on Ministries with the 13 highest allocations for 2021-22 and the annual growth estimated over 2019-20. In India, government expenditure - as per the provision in the Constitution - is divided into revenue expenditure and capital expenditure. However, the adoption of economic planning shifted emphasize on the division of expenditure into developmental and non-developmental expenditure of the central government.

Structure of Expenditure in India

The Central Government refers to public expenditure on goods and services and is a major component of the GDP. The central government expenditure policies like setting up budget targets, adjusting taxation, increasing public expenditure and public works are very effective tools in influencing economic growth. In India, government expenditure - as per the provision in the constitution - is divided into revenue expenditure and capital expenditure. However, the adoption of economic planning shifted emphasize on the division of expenditure into development and non-development. The share of non-development expenditure has remained close to 70% and that of development at 30% all these years. A high-level committee on efficient management of public expenditure, was then, constituted by the planning commission which recommended that the usual distinction made in the government budget between development expenditure and non-development expenditure be done away with. In the long-term, the India Central Government Total Expenditure to GDP is projected to trend around 14.00 per cent of GDP in 2022 and 12.00 per cent of GDP in 2023, according to our econometric models.

Table -1

Major Heads of Developmental and Non-Developmental Expenditure of the Central Government for Economic Growth (Between: 2010-11 to 2021-22)

Year	Developmental Expenditure (1)	Of which		Non-Developmental Expenditure (2)	Total Expenditure (1+2)
		Economic Services	Social Services		
2010-11	666069	404312	124990	551471	1217540
2011-12	705321	436943	113612	627075	1332396
2012-13	742417	458222	119346	692856	1435273

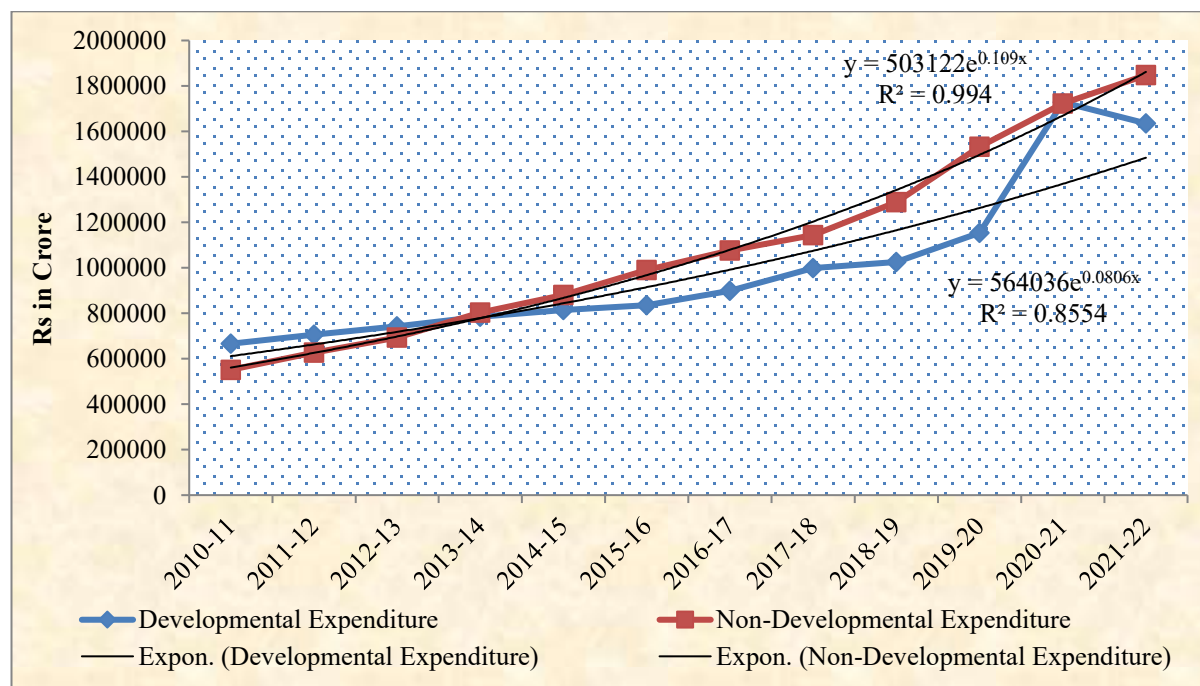
2013-14	784504	478376	134840	803070	1587574
2014-15	813813	459786	62038	881159	1694972
2015-16	835019	495234	91462	990172	1825191
2016-17	899369	569910	105303	1075825	1975194
2017-18	998201	623730	113382	1143772	2141973
2018-19	1025979	631826	122949	1289134	2315113
2019-20	1153187	719731	153058	1533142	2686330
2020-21	1728034	1256874	178278	1722271	3450305
2021-22	1635631	1077858	218088	1847605	3483236
Average	998962.0	634400.2	128112.2	1096462.7	2095424.8
CAGR (%)	8.40	9.48	4.80	11.52	9.97

Source: Government of India (2022), Annual Report of RBI, Handbook of Statistics on Indian Economy (2010 to 2021)

The above Table-1 and Graph-1 give the data information about the amount of total central government expenditure pattern of development and non-development expenditure for the economic growth during the period from 2010-12 to 2021-22. The development expenditure for the Indian economy is Rs.666069 crore in 2010-11, which increased to Rs.1635631 crore in 2021-22. During 2010-11, of which, Rs.404312 crore was spent on economic services, which has significantly increased to Rs.1077858 crore in 2021-22; and the total amount of central expenditure on social services is Rs.124990 crore in 2010-12, which has significantly increased to Rs.218088 crore in 2021-22. The non-developmental expenditure of the central government is Rs.551471 crore in 2010-12, which has positively increased to Rs.1847605 crore in 2021-22.

Graph -1

**Developmental and Non-Developmental Expenditure of the Central Government for Economic Growth
(Between: 2010-11 to 2021-22)**



Overall, the total amount of central government expenditure for economic growth is Rs.1217540 crore in 2010-11, which has significantly increased to Rs.3483236 crore in 2021-22. The above table indicates the CAGR for the developmental and non-developmental central expenditure for the Indian economy and their

impact on economic growth in India. The CAGR for developmental expenditure is 8.40 per cent, economic services are 9.48 per cent, social services is 4.80 per cent, non-developmental expenditure is 11.52 per cent and the total amount of central government expenditure is 9.97 per cent. The above table result from the non-development expenditure has been a major role in the economic growth of India i.e. 11.52 per cent of contribution to the Indian economy.

Testing Hypothesis

H0: There is no significant impact of central government expenditure on economic growth in India.

H1: There is a significant impact of central government expenditure on economic growth in India.

Table-2 Impact of Developmental and Non-Developmental Expenditure of the Central Government on Economic Growth

Model Summary and Parameter Estimates							
Dependent Variable: Total Central Government Expenditure							
Equation	Model Summary					Parameter Estimates	
	R Square	F	df1	df2	Sig.	Constant	b1
Exponential	.973	358.212	1	10	.000	1.000E-013	.095

Table 2 presents the results of the exponential growth model analyzing the impact of developmental and non-developmental expenditure of the central government on economic growth in India. According to the results, central government expenditure has grown positively at an average rate of 9.5% during the study period, and this growth is statistically significant at the 1% level. The model demonstrates a high goodness-of-fit value of 97.3%, indicating a strong explanatory power. However, we reject the null hypothesis. Hence, this result implies that there is a significant impact of central government expenditure on economic growth in India.

VI Central Expenditure Pattern to GDP

The expenditure method is the most widely used approach for estimating GDP, which is a measure of the economy's output produced within a country's borders irrespective of who owns the means to production. The GDP under this method is calculated by summing up all of the expenditures made on final goods and services. The Government has estimated to spend Rs.2,07,132 crore on pension in 2022-23, which is 4.1 per cent higher than the revised estimate of 2021-22. In addition, expenditure on interest payment in 2022-23 is estimated to be Rs.9,40,651 crore, which is 23.8 per cent of the government's expenditure. In India, the central government expenditure was recorded at 17.6 per cent of GDP during the year of 2020-21.

Table –3

Growth of Central Government Expenditure to GDP in India

Year	Percentage of Central Expenditure Pattern to GDP
2012-13	14.18
2013-14	13.88
2014-15	13.34
2015-16	13.00
2016-17	12.80
2017-18	12.53
2018-19	12.20
2019-20	13.21
2020-21	17.60

Source: Government of India (2022), Annual Report of RBI, Handbook of Statistics on Indian Economy (2010 to 2021)

From the above table-3, it is clear that the growth of central expenditure to GDP in India during the period from 2012-13 to 2020-21. The growth of central government expenditure to GDP is 14.18 per cent, it has changed to 12.80 per cent in 2016-17, and then it changed to 17.60 per cent in 2020-21.

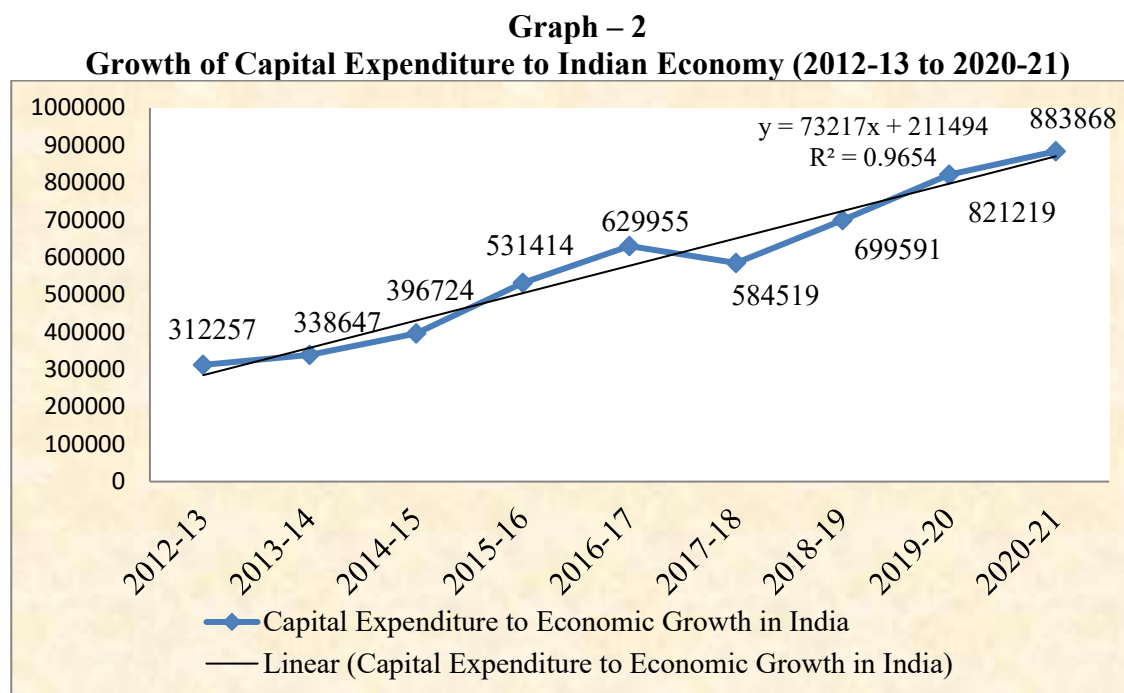
Table – 4

Growth of Capital Expenditure to Indian Economy (2012-13 to 2020-21)

(Rs in Crore)

Year	Capital Expenditure to Economic Growth in India	AGR (%)
2012-13	312257	-
2013-14	338647	8.45
2014-15	396724	17.15
2015-16	531414	33.95
2016-17	629955	18.54
2017-18	584519	-7.21
2018-19	699591	19.69
2019-20	821219	17.39
2020-21	883868	7.63
Total	5198194	
Average	577577.1	
CAGR (%)	14.36	

Source: Government of India (2022), Annual Report of RBI, Handbook of Statistics on Indian Economy (2010 to 2021)



The growth of capital expenditure in the Indian economy during the period from 2012–13 to 2020–21 is presented in **Table 4** and **Graph 2**. In 2012–13, the total capital expenditure amounted to ₹3,12,257 crore, which significantly increased to ₹6,29,955 crore by 2016–17. However, it witnessed a decline to ₹5,84,519 crore in 2017–18, before rising sharply again to ₹8,83,868 crore in 2020–21. The table also highlights the Annual Growth Rate (AGR) and Compound Annual Growth Rate (CAGR) of capital expenditure in relation to economic growth. The AGR was 8.45 percent in 2013–14, rose to 33.95 percent in 2015–16, and then registered a negative growth of -7.21 percent in 2017–18. It rebounded to a positive growth of 7.63 percent in 2020–21. The CAGR over the entire period reflects a strong positive growth of 14.36 percent, indicating a sustained increase in capital expenditure towards fostering economic growth.

Table –5

**Growth Rates and Composition of Gross Domestic Product in India
(At 2011-12 prices)**

S. No	Indicators	Average 2014-15 to 2021-22	2019-20	2020-21	(In Per cent)
					2021-22
1	Private Final Consumption Expenditure	5.3	5.2	-6.0	7.6
2	Government Final Consumption Expenditure	6.4	3.4	3.6	4.8
3	Gross Fixed Capital Formation	5.3	1.6	-10.4	14.6
4	Change in Stocks	-218.5	-58.8	-110.7	-1723.9
5	Valuables	14.0	-14.2	26.4	63.0
6	Net Exports	-37.8	-16.1	39.1	-102.7
	a)Exports	3.3	-3.4	-9.2	21.1
	b) Less Imports	5.1	-0.8	-13.8	29.9
7	Discrepancies	-13.2	164.2	-39.8	-28.4
8	GDP	5.4	3.7	-6.6	8.9

Source: Government of India (2022), Annual Report of RBI, Handbook of Statistics on Indian Economy (2010 to 2021)

Table 5 provides data on central government expenditure and its relationship with economic growth in India during the period from 2019–20 to 2021–22. The table outlines the growth rates and composition of Gross Domestic Product (GDP) at 2011–12 constant prices, focusing on key expenditure components contributing to economic growth—namely, Private Final Consumption Expenditure (PFCE), Government Final Consumption Expenditure (GFCE), Gross Fixed Capital Formation (GFCF), Change in Stocks, and others. In terms of private final consumption expenditure, the growth rate was 5.2 percent in 2019–20, declined to -6.0 percent in 2020–21 due to the pandemic-induced slowdown, and then rebounded to a positive 7.6 percent in 2021–22. Government final consumption expenditure recorded a growth of 3.4 percent in 2019–20 and increased to 4.8 percent in 2021–22. Gross fixed capital formation also showed a positive trend, rising from 1.6 percent in 2019–20 to 14.6 percent in 2021–22, indicating a revival in investment activity. The overall GDP growth rate stood at 5.4 percent in 2019–20 and rose significantly to 8.9 percent in 2021–22, highlighting a strong post-pandemic recovery. The data from Table 5 clearly indicates that the growth rates of major components contributing to GDP experienced positive momentum during the period from 2019–20 to 2021–22, reflecting improved economic activity and effective fiscal intervention by the government.

Conclusion Remarks

In conclusion, the performance of central government expenditure and their impact on economic growth in India. It can be concluded that all the explanatory variables are positively and significantly affecting the GDP growth that means economic growth. It has a major role in the Indian economy and its impact on economic growth, economic development, economic services, social services, etc. Non-development expenditures continue to be a large proportion of the general government expenditure. Expenditure management has to lay more emphasis on the design of the programme and the exploration of the alternatives. Hence, there is a need to raise the development expenditure particularly on both physical and social infrastructure to achieve more economic growth. On the expenditure side, any action on the part of the centre that entails large additional spending responsibilities on states should be preceded by consultation with state governments. At the same time, ways should be explored for introducing market discipline in state's borrowing.

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