# Goods and Services Tax, Public Expenditure, and Economic Growth in India: An Empirical Assessment

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**Abstract**
The introduction of the Goods and Services Tax (GST) in India brought a major change to the country's indirect tax system. By replacing multiple central and state taxes with a single unified framework, GST aimed to improve revenue collection, strengthen fiscal management, and support economic growth. This study examines the relationship between GST revenue performance, public expenditure, and economic growth in India using officially reported macroeconomic and fiscal data for the period from 2016 to 2023. The analysis focuses only on observed outcomes and does not rely on projections or assumptions. The findings show that GST has been associated with improved tax revenue performance, higher capital expenditure, and better fiscal consolidation, even though short-term disruptions were observed during periods of economic stress. The study adds to the existing literature by providing evidence-based insights into how indirect tax reform can strengthen fiscal outcomes and support economic growth in a developing economy.
**Keywords:** Goods and Services Tax, public expenditure, economic growth, tax revenue, India, fiscal policy

## 1. Introduction

Taxation is a key component of economic development, particularly in developing economies where government resources are limited. An efficient tax system enables governments to raise revenue in a stable manner and invest in infrastructure, education, health, and social welfare. These investments play a crucial role in supporting long-term economic growth and improving overall development outcomes. When tax systems are complex or inefficient, revenue mobilization becomes weak, limiting the government's ability to meet developmental needs.

India's adoption of the Goods and Services Tax (GST) in 2017 represents one of the most significant fiscal reforms in the country's recent history. GST replaced a fragmented system of indirect taxes with a unified, destination-based tax structure. The reform was intended to reduce tax cascading, simplify compliance, and improve the efficiency of revenue collection across states.

Previous studies suggest that well-designed tax systems can support economic growth by enabling productive public expenditure and improving the allocation of resources (Besley & Persson, 2009; Ahuja & Pandit, 2020). However, the actual impact of GST on revenue performance, public expenditure, and economic growth remains debated. While several studies have examined sector-specific effects and compliance-related issues (Bindal & Gupta, 2018; Garg, 2019; Mishra, 2018), fewer studies provide a comprehensive macro-level assessment based solely on realised outcomes.

This study seeks to address this gap by examining the relationship between GST revenue, public expenditure, and economic growth in India using official time-series data.

## 2. Review of Literature

The link between taxation and economic growth has been widely discussed in the public finance literature. Early studies highlight the importance of taxation in building state capacity and enabling governments to support growth-enhancing public investment (Besley & Persson, 2009). Research on developing economies shows that broader tax bases and improved tax administration are associated with stronger fiscal performance and better growth outcomes (Fenochietto & Pessino, 2013; Dabla-Norris et al., 2017).

In the Indian context, early discussions on GST focused on its expected benefits, such as improved efficiency, reduced compliance costs, and a wider tax base. Rao and Chakraborty (2010) emphasized the efficiency gains from broadening the indirect tax base, while Roychowdhury (2012) discussed the shift from VAT to GST as an important structural reform.

Following the implementation of GST, several studies examined its early impacts. Alpna (2017), Bharat (2017), and Bhattacharya (2017) highlighted implementation challenges and short-term adjustments faced by businesses. Empirical studies such as Bindal and Gupta (2018) and Tiwari and Singh (2018) reported improvements in tax transparency and compliance over time. At the sub-national level, Neog and Gaur (2020) found a positive relationship between tax structure and economic growth.

Despite the growing body of research, there remains a need for outcome-based macroeconomic analysis using consolidated national-level data. This study contributes to the literature by linking GST revenue performance with public expenditure and economic growth using verified official data.

**3. Conceptual Framework**

The conceptual framework of this study is based on the relationship between taxation, public expenditure, and economic growth. GST affects economic growth mainly through its impact on government revenue. Improved revenue collection increases fiscal space, allowing governments to spend more on infrastructure and public services.

Public expenditure, particularly capital expenditure, serves as an important channel through which tax revenue influences economic growth. Higher investment in infrastructure and social sectors improves productivity, supports private investment, and strengthens aggregate demand. In addition, improved tax compliance and administration under GST contribute to fiscal sustainability over time (Ahuja & Pandit, 2020; Jha, 2019).

This study empirically examines these linkages using actual fiscal and growth indicators from the post-GST period.

**4. Data**

The study relies entirely on secondary data obtained from official sources. These include publications from the Reserve Bank of India (RBI), the Ministry of Statistics and Programme Implementation (MOSPI), Union Budget documents, and reports published by the GST Council. The dataset covers the period from 2016 to 2023, which includes one year before GST implementation and the subsequent post-GST period.

The data include macroeconomic indicators such as real GDP growth and GDP at constant prices, as well as fiscal variables such as total GST revenue, tax–GDP ratio, capital expenditure, and fiscal deficit. The number of registered GST taxpayers is used as an indicator of tax base expansion and improved compliance.

All monetary values are expressed in Indian Rupees (₹ crore), and ratio variables are expressed as percentages. GST-related variables are not available for the pre-GST year due to institutional non-existence and are treated accordingly.

**5. Methodology**

The study adopts a time-series analytical approach. Descriptive analysis is first used to examine trends in GST revenue, public expenditure, and economic growth. This is followed by regression-based analysis to assess the relationship between economic growth and key fiscal variables.

A GST regime indicator is included to capture the structural change associated with the introduction of GST in 2017. The econometric framework follows standard practices outlined by Gujarati and Porter (2009) and Wooldridge (2013). The analysis focuses on observed outcomes and avoids counterfactual assumptions.

**6. Results and Discussion**

The results show a steady increase in GST revenue after the initial adjustment phase following implementation. The number of registered GST taxpayers increased consistently over the study period, indicating improved compliance and greater formalization of economic activity.

The tax–GDP ratio shows gradual improvement in the post-GST period, reflecting enhanced revenue mobilization capacity. Government capital expenditure also increased steadily, suggesting that improved revenue performance created additional fiscal space. This increase in public investment is important for supporting long-term economic growth.

Although economic activity was temporarily affected during periods of macroeconomic stress, GST revenue continued to support fiscal consolidation efforts. Real GDP growth recovered strongly in the later years of the study period, indicating resilience supported by fiscal measures.

Overall, the findings are consistent with earlier evidence that efficient tax systems support economic growth by enabling productive public expenditure (Besley & Persson, 2009; Neog & Gaur, 2020). The results suggest that GST has strengthened India's fiscal framework by improving revenue predictability and administrative efficiency.

## 7. Conclusion

This study provides an empirical assessment of the relationship between GST, public expenditure, and economic growth in India using official post-implementation data. The findings indicate that GST has contributed to improved revenue mobilization, expansion of the tax base, and increased capital expenditure.

By strengthening fiscal capacity, GST has supported public investment and economic recovery, even during periods of economic stress. The study highlights the importance of comprehensive tax reform in improving fiscal outcomes and supporting economic growth in developing economies.

Future research can extend this analysis using state-level panel data to capture regional differences and long-term growth effects.

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