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DECODING THE TAX - GROWTH NEXUS: A TIME-SERIES ANALYSIS OF INDIA'S DIRECT AND INDIRECT TAX STRUCTURE

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ABSTRACT

This study compares the effects of direct and indirect taxes on GDP in order to examine the relationship between taxes and economic growth in India. The study uses time-series data from 2000–2001 to 2024–2025 in a quantitative, explanatory research approach. The Economic Survey, Ministry of Finance publications, and the Reserve Bank of India are the sources of secondary data. To evaluate the strength and importance of the tax-growth link, analytical tools include multiple regression approaches, ratio analysis, Pearson correlation, and descriptive statistics.

The findings show that there is a substantial and statistically significant positive correlation between GDP and tax revenue. Both direct taxes ($r = 0.98$) and indirect taxes ($r = 0.97$) have very high correlation values. According to regression research, direct taxes have a greater effect on GDP ($\beta = 0.72$) than indirect taxes ($\beta = 0.41$). A structural movement toward a more effective and equitable tax system is indicated by ratio analysis, which also shows an increasing Direct Tax-to-GDP ratio and a decreasing reliance on indirect taxes.

By providing an integrated time-series analysis of India's tax structure and its effect on GDP over a long period of time, this study closes a major gap and emphasizes the growing significance of direct taxes in promoting economic development.

KEYWORDS: Taxation, Economic Growth, Direct Tax, Indirect Tax, GDP, Tax-to-GDP Ratio, Time-Series Analysis, India, Fiscal Policy, Econometric Analysis.

1. BACKGROUND OF THE STUDY:

In order to finance government operations and promote goals like stability, equity, and sustainable growth, taxes are an essential part of public finance in India. India's tax system has changed significantly during the last 20 years as a result of technical developments, economic reforms, and regulatory changes meant to increase efficiency and transparency. The system has gradually shifted



toward direct taxes like income and corporate tax, reflecting an attempt to create a more equitable, ability-to-pay-based taxation structure. Historically, the system was dominated by indirect taxes like sales tax, customs duty, and excise duty—favored for their broad base and ease of collection but frequently regressive in nature.

Key reforms, most notably the implementation of the Goods and Services Tax (GST) in 2017, which combined several indirect taxes into a single system, improving compliance and streamlining the tax structure, have been the driving force behind this shift. A shift toward a more transparent and effective tax system has been reflected in the concurrent use of digital technologies, such as data analytics, Aadhaar linking, and online tax filing, which have improved administration, expanded the tax base, and decreased evasion. Assessing fiscal efficacy requires an understanding of the relationship between tax income and GDP, with the tax-to-GDP ratio being a key measure of revenue capacity and prospective public spending. The relative effects of direct and indirect taxes on economic growth, however, are still up for question, especially in developing nations like India where institutional and structural dynamics change over time. In order to capture long-term trends and structural changes, a time-series analysis of GDP and tax income is necessary. This study aims to investigate India's changing tax system and its consequences for economic growth by examining the contributions of both direct and indirect taxes.

1.2 Introduction:

In economics and public policy, the relationship between taxes and economic growth is a major concern, especially in developing nations like India where fiscal policy is crucial to development. India's tax system has changed significantly over time, gradually moving from indirect to direct taxes, which raises substantial concerns about how differently they affect economic performance. This study uses time-series data to analyze the effects of direct and indirect taxes over a period of more than 20 years in order to investigate the relationship between tax revenue and GDP. To guarantee analytical rigor and dependability, it assesses the strength, direction, and importance of this link using econometric approaches. The study's objectives are to ascertain whether tax structure modifications have aided India's economic expansion and to evaluate how well different tax reforms have improved efficiency. It advances knowledge of how fiscal policy might be strategically created to assist sustainable economic development by offering empirical insights.

2. RESEARCH CONTEXT:

2.1 Global Context: Taxation and Economic Growth:

A major topic in public finance and macroeconomic policy, the relationship between taxes and economic growth has been extensively studied in international economic literature. In addition to funding vital public services like infrastructure, healthcare, education, and social welfare, taxes are



the main source of funding for the government and have a big impact on investment, consumption, and overall economic performance. This link is explained by many theoretical stances: Keynesian theory emphasizes the function of taxation in controlling aggregate demand and guaranteeing economic stability, whereas classical and neoclassical economists stress avoiding distortions to promote savings and investment.

While indirect taxes are frequently thought to be more stable, empirical data, especially from OECD nations, indicates that the effect of direct taxes, such as corporation and income taxes, on growth varies depending on their structure. Global developments like digitization, globalization, and more tax competitiveness have changed tax systems in recent years, and governments are using technology more and more to increase compliance and broaden the tax base. Despite worries that overly high taxes may discourage private investment, concepts like tax buoyancy and elasticity have proven essential for comprehending revenue responsiveness, and the tax-to-GDP ratio continues to be a significant measure of fiscal capacity. However, there is still disagreement over the best tax mix, particularly in developing nations dealing with issues like low compliance and informality. This highlights the need for nation-specific research to gain a deeper understanding of the relationship between taxes and growth in various institutional contexts.

2.2 Indian Context: Evolution of Tax Structure and GDP Growth:

India's tax structure has changed significantly during the last few decades as a result of structural and economic reforms. After economic liberalization in the early 1990s, the system, which had previously been dominated by indirect taxes like sales tax, customs duty and excise duty, often criticized for their regressive nature; gradually moved toward a larger dependence on direct taxes like income and corporate tax. Key reforms, such as expanding the tax base, rationalizing tax rates, and implementing digital tax administration, helped to facilitate this shift by streamlining the tax system, increasing compliance, and boosting transparency. The Goods and Services Tax (GST), which combined several indirect taxes into a single framework and helped create a more equal and balanced tax structure, was a significant reform in this process. For a growing nation like India, where resources are scarce and development demands are significant, the relationship between tax income and GDP is still vital. India's tax-to-GDP ratio has improved over time, but it is still low when compared to many other nations, suggesting room for increased revenue mobilization. Tax revenues typically decrease during economic shocks like the global financial crisis and the COVID-19 epidemic, even though they typically rise with economic growth due to higher income, consumption, and profitability. To comprehend their contribution to India's economic growth over time, it is crucial to analyse the effects of both direct and indirect taxes on GDP using time-series data.

3. RATIONALE OF THE STUDY:

Effective policymaking in a developing nation like India, where government revenue funds important



development projects, requires an understanding of how taxes affect economic growth. India's distinctive characteristics, such as a sizable informal sector, continuing tax reforms, and a slow transition from indirect to direct taxes, limit India-specific study despite substantial worldwide research. Although efficiency has increased over the last 20 years due to changes including the introduction of the GST, digital tax filing, rate rationalization, and taxpayer base expansion, it is still unclear how direct versus indirect taxes affect GDP. It is challenging to determine the actual impact of tax reforms on GDP since existing research frequently lacks long-term, integrated study utilizing reliable statistical techniques. By analyzing the relationship between tax revenue and GDP, contrasting the effects of direct and indirect taxes, and offering policy-oriented insights using time-series data to support a more effective and equitable tax system in India, this study fills this gap.

4. REVIEW OF LITERATURE AND RESEARCH GAP:

In the literature on taxes and economic growth, conceptual and policy-oriented arguments increasingly gave way to empirical and econometric analysis between 2010 and 2026. Early studies (2010–2012) largely focused on fiscal consolidation, tax efficiency, and structural problems in developing economies like India. Rao (2010, 2014) highlighted issues such a low tax-to-GDP ratio and an excessive reliance on indirect taxes. The significance of tax structure in economic growth has been emphasized by international organizations that promote improved tax administration, compliance, and a balanced tax mix, such as the International Monetary Fund (IMF, 2012) and the Organization for Economic Cooperation and Development (OECD, 2011).

Between 2013 and 2015, the focus shifted to tax reforms and system modernization. Increasing transparency, broadening the revenue base, and simplifying the tax system are all essential, according to research. Research by Purohit (2015) and policy discussions around the Kelkar Committee laid the groundwork for important reforms like the Goods and Services Tax (GST). Furthermore, these studies began to show a closer relationship between taxes and economic growth and fiscal sustainability, highlighting the importance of efficient tax systems for long-term development.

Research from 2016 to 2018 examined the implications of the Goods and Services Tax (GST), which significantly altered India's tax system in 2017. Bala (2018) asserts that GST enhanced efficiency, reduced tax cascading, and raised revenue collection. The increased emphasis on digitization and compliance during this time allowed for a gradual shift from indirect to direct taxation. Researchers began examining how these structural changes affected macroeconomic performance and economic growth.

The literature examined the relationship between growth and taxes using an increasing number of empirical and econometric techniques between 2019 and 2023. While studies like Neog and Gaur (2020) found a complicated relationship between tax revenue and GDP, Gupta and Narang (2021) and



Patel (2021) found strong positive associations. According to complex models like the Autoregressive Distributed Lag (ARDL) model and time-series analysis used by Sharma and Singh (2022) and Kumar and Rao (2022), both direct and indirect taxes have a significant impact on economic growth. The Reserve Bank of India (2022) and the Economic Survey (2023) reported improvements in tax performance, whereas Arya (2023) and Das and Ghosh (2023) emphasized tax buoyancy and fiscal sustainability.

Global issues, tax efficiency, and structural changes are the main topics of current research from 2024 to 2026. Schneider et al. (2024) examined the impact of the informal economy on taxation, whereas Jha and Mishra (2025) observed a shift toward direct taxes in India, indicating a more progressive system. While studies like Mongia and Singh (2025) emphasized the efficiency gains from GST, global studies by Dias et al. (2025) and Mantzaris and Fosner (2025) looked at issues of tax equality and compliance. Emerging discussions in 2026 emphasize the significance of digitalization, AI-powered tax systems, and sustainable fiscal policies. Despite extensive study, the current analysis aims to close the gap in comprehensive long-term time-series studies that incorporate both direct and indirect taxes.

The corpus of research on taxes and economic growth still has a lot of gaps, particularly with regard to India. Most recent studies either focus on direct or indirect taxes separately or use cross-national comparisons that may not fully take into consideration India's unique institutional and structural dynamics. Additionally, many studies are limited to shorter time periods and do not adequately account for major fiscal initiatives like GST or recent economic shocks like COVID-19. Additionally absent are thorough time-series analyses that simultaneously examine the combined effects of direct and indirect taxes on GDP over an extended period of time. The lack of a thorough, long-term econometric analysis of tax mix and its influence on economic growth in India is thus addressed by the current work.

5. LIMITATIONS OF THE STUDY:

It is crucial to consider the limitations of the study when evaluating the findings. First, the study only uses secondary data, which may be affected by modifications, inconsistent reporting, or inconsistent sources. Second, the analysis may overlook variations in taxation and economic growth at the state or sector levels since it employs a time-series technique at the aggregate (macro) level. Third, the econometric model only uses direct and indirect tax revenues as explanatory variables; other important macroeconomic factors that could have an impact on GDP, like inflation, government expenditure, investment, and international trade, are excluded. Fourth, because the study assumes a linear relationship between taxation and economic growth, it might not sufficiently account for complex or non-linear dynamics. Last but not least, structural upheavals like as the COVID-19 epidemic and the implementation of GST are only tacitly considered; their specific effects are not examined separately.



Despite these limitations, the analysis provides valuable insights into the connection between taxes and growth in India over the selected period.

6. RESEARCH METHODOLOGY:

6.1 Research Design and Data Sources:

The study uses a quantitative and explanatory research approach to examine the relationship between taxation and economic growth in India. A time-series method is applied to analyse data from 2000-2001 to 2024-2025, which helps in understanding long-term trends, patterns and structural changes in tax revenue and Gross Domestic Product (GDP). The study is based on secondary data collected from reliable sources such as the Economic Survey of India, Reserve Bank of India (RBI) publications, Ministry of Finance reports and the World Bank database. These sources ensure that the analysis is accurate, consistent and objective.

6.2 Variables and Model Specification:

In this study, direct tax revenue and indirect tax revenue are treated as independent variables, while GDP is considered the dependent variable representing economic growth. Additional indicators such as the GDP growth rate, Direct Tax-to-GDP ratio, and Indirect Tax-to-GDP ratio are used to better understand fiscal efficiency and changes in the tax structure. To measure the impact of taxes on GDP, a multiple regression model is used, where GDP is expressed as a function of direct and indirect taxes along with an error term. This helps in identifying the individual contribution of each type of tax to economic growth.

6.3 Analytical Tools and Hypothesis Testing:

The study applies a mix of descriptive statistics and econometric techniques for a detailed analysis. Descriptive and trend analysis are used to study the overall movement of tax revenue and GDP, while ratio analysis helps in evaluating tax efficiency. The Pearson correlation method is used to measure the strength of the relationship between variables and multiple regression analysis is applied to assess the impact of direct and indirect taxes on GDP. Comparative analysis is also conducted to understand the relative importance of each tax type. The hypotheses are tested using statistical tools such as correlation coefficients, regression coefficients and significance tests, ensuring a systematic and evidence-based evaluation of the tax–growth relationship in India.

To test the reliability of secondary dataset and suitability of analytical tools and hypothesis testing; the researcher has calculated Cronbach's Alpha as follow.

Table: 1 Cronbach’s Alpha - Test of reliability

Number of Items (Variables)	Cronbach’s Alpha (α)
Six Variables includes; Direct Tax Revenue, Indirect Tax Revenue, GDP, GDP Growth (%), Direct Tax-to-GDP Ratio (%) and Indirect Tax-to-GDP Ratio (%).	0.981

Source: Secondary dataset.

Interpretation and conclusion:

With a Cronbach's Alpha rating of 0.981, the dataset is quite reliable. Given that the value is higher than 0.9, the variables' internal consistency is quite high. This implies that the data for examining the connection between taxes and economic growth is steady and trustworthy. For additional statistical analysis, such as regression, correlation and hypothesis testing, the dataset is appropriate.

7. OBJECTIVES OF THE STUDY:

(A) Primary Objectives:

1. To investigate the relationship between India's GDP and direct and indirect tax income.

(B) Secondary\Supporting Objectives:

2. To examine the strength of the correlation between GDP and direct tax revenue and indirect tax revenue.
3. To use regression analysis to assess how direct tax and indirect tax revenue affects GDP.
4. To compare the relative impact of direct and indirect taxes on GDP.
5. To investigate how GDP growth is impacted by direct and indirect tax-to-GDP ratios.
6. To determine the policy implications of the best tax structure for economic expansion.

8. HYPOTHESES OF THE STUDY:

1. **H₀₁:** There is no significant relationship between tax revenue (direct and indirect) and GDP in India.
H_{0a}: There is a significant relationship between tax revenue (direct and indirect) and GDP in India.
2. **H₀₂:** Direct tax revenue has no significant impact on GDP in India.
H_{0a}: Direct tax revenue has a significant impact on GDP in India.
3. **H₀₃:** Indirect tax revenue has no significant impact on GDP in India.
H_{0a}: Indirect tax revenue has a significant impact on GDP in India.
4. **H₀₄:** There is no significant difference between the impact of direct and indirect taxes on GDP.
H_{0a}: There is a significant difference between the impact of direct and indirect taxes on GDP.

5. **H_{0s}**: Tax-to-GDP ratios do not significantly influence GDP growth.

H_{0a}: Tax-to-GDP ratios significantly influence GDP growth.

9. RESULTS AND DISCUSSION:

Using suitable statistical and economic methods, the study carefully tests the developed hypotheses and methodically assesses the stated objectives. The time-series dataset serves as the basis for the research, and each goal has been looked at in relation to its related hypothesis. A thorough grasp of the connection between tax income and economic growth in India is provided by the findings of correlation, regression, and comparative analysis.

(A) Descriptive analysis:

The researcher has put together a large time-series dataset in order to perform a descriptive analysis of India's tax system and economic growth from 2000–2001 to 2024–2025. The dataset contains key variables such as direct tax revenue, indirect tax revenue, GDP, GDP growth rate, and tax-to-GDP ratios that allow a systematic examination of trends, patterns, and structural changes across time. This structured data offers a clear foundation for understanding the evolving relationship between taxes and economic performance in India, enabling the identification of development trajectories, comparative movements between tax components, and changes in fiscal structure.

Table: 2 Direct, Indirect and Gross Domestic Product (GDP) dataset, ₹ in Crore and GDP calculated at current prices

Financial Year	Direct tax Revenue	Indirect Tax Revenue	GDP	GDP Growth (%)	Direct tax to GDP ratio (%)	Indirect tax to GDP ratio (%)
2000-2001	68,305	119814	2102376	7.7	3.25	63.69
2001-2002	69,198	117318	2281058	8.5	3.03	62.9
2002-2003	83,088	132608	2458084	7.8	3.38	61.48
2003-2004	105088	148608	2754621	12.1	3.81	58.58
2004-2005	1,32,771	170936	3242209	17.7	4.1	56.28
2005-2006	1,65,216	199348	3696369	13.9	4.47	54.68
2006-2007	230181	241538	4294706	16.3	5.36	51.2
2007-2008	314330	279031	4987090	16.1	6.3	47.03
2008-2009	333818	269433	5630063	12.9	5.93	44.66
2009-2010	378063	243939	6457352	14.7	5.85	39.22
2010-2011	4,45,995	343716	7674148	18.8	5.81	43.52

2011-2012	4,93,987	390953	9009722	17.4	5.48	44.18
2012-2013	5,58,989	472915	10113281	12.3	5.53	45.83
2013-2014	638596	495347	11355073	12.3	5.62	43.68
2014-2015	695792	543215	12541208	10.5	5.55	43.84
2015-2016	741945	711885	13567192	8.3	5.47	48.97
2016-2017	849713	861515	15362386	13.2	5.53	50.34
2017-2018	1002738	915256	17098304	11.3	5.85	47.72
2018-2019	1137718	937322	18886957	10.5	6.02	45.17
2019-2020	1050681	953513	20074856	6.3	5.23	47.58
2020-2021	947176	1074809	19829927	-1.2	4.78	53.16
2021-2022	1412422	1289662	23597399	19.3	5.99	47.73
2022-2023	1663686	1381935	26949646	14.2	6.17	45.37
2023-2024	1960166	1495853	29535667	9.6	6.64	43.28
2024-2025	2199000	1520000	32700000	10.5	6.72	46.05

Source: 1. Ministry of Finance, Government of India, (2000–2025). 2. Union Budget Documents, New Delhi. 3. National Statistical Office (NSO- 2024), National Accounts Statistics. Government of India. 4. CBDT

Interpretation:

From 2000–2001 to 2024–2025, the data shows a clear upward trend in GDP and tax revenues, indicating strong economic growth and improved revenue mobilization in India. Direct tax collection has significantly increased as a result of increased income levels, better compliance, and an expansion of the tax base. Indirect taxes have also increased, albeit at a somewhat slower rate in recent years. GDP has increased steadily despite sporadic fluctuations in growth rates caused by economic events such as the global financial crisis and the COVID-19 pandemic. The negative growth observed in 2020–2021, which was followed by a strong comeback period, highlights the effects of economic shocks.

The Direct Tax-to-GDP ratio has been steadily increasing while the Indirect Tax ratio has been declining over time, indicating a substantial structural shift in the tax structure. This points to a change toward a more equitable and equal tax structure. The data also indicates a strong positive correlation between GDP and tax revenue since higher tax collections are associated with increases in economic output. All things considered, the trends indicate improved tax administration, greater fiscal capacity, and a closer relationship between taxation and India's economic development.

(B) Inferential Analysis:

The researcher used a variety of statistical tests to examine the hypotheses, and the findings were

compared and analysed.

Table: 3 Comparative hypotheses test result

Hypothesis Number and Purpose	Statistical Tool	Calculation / Model	Key Values	Interpretation	Decision	Major Finding
H ₀₁ / H _{0a} To test relationship between tax (DT and IT) revenue and GDP.	Pearson Correlation	r (DT vs GDP), r (IT vs GDP)	r = 0.98 (DT) r = 0.97 (IT)	Very strong positive relationship exists between Direct tax and Indirect tax and GDP	Reject H₀₁; Hence Alternate hypothesis Accepted	Tax revenue is highly associated with GDP growth
H ₀₂ / H _{0a} To measure impact of direct tax on GDP.	Regression (t-test)	GDP = β ₀ + β ₁ (DT) + β ₂ (IT)	β₁ = 0.72, t_{cal} (12.71) > t_{tab} (2.06) p (0.000) < 0.05	Direct tax has strong and significant effect on GDP than Indirect tax	Reject H₀₂; Hence Alternate hypothesis Accepted	Direct tax is a major driver of GDP
H ₀₃ / H _{0a} To measure impact of indirect tax on GDP.	Regression (t-test)	GDP = β ₀ + β ₁ (DT) + β ₂ (IT)	β₂ = 0.41, t_{cal} (8.50) > t_{tab} (2.06) p (0.000) < 0.05	Indirect tax has moderate but significant effect on GDP than Direct tax	Reject H₀₃; Hence Alternate hypothesis Accepted	Indirect tax contributes but less than direct tax

<p>H_{04} / H_{0a} To compare effect of DT vs IT on GDP.</p>	<p>Coefficient Comparison</p>	<p>Compare β_1 and β_2</p>	<p>β_1 (0.72 - DT) > β_2 (0.41 - IT)</p>	<p>Significant difference in impact; between Direct tax and Indirect tax</p>	<p>Reject H_{04}; Hence Alternate hypothesis Accepted</p>	<p>Direct tax has stronger impact than indirect tax</p>
<p>H_{05} / H_{0a} To test impact of tax ratios on GDP growth.</p>	<p>Ratio Analysis and Correlation</p>	<p>DT/GDP & IT/GDP vs GDP Growth</p>	<p>DT ratio increased from 3.25 % to 6.64 % and IT ratio decreased from 63.69 % to 43.28 %</p>	<p>Direct tax ratio positively linked with growth than Indirect tax ratio</p>	<p>Reject H_{05}; Hence Alternate hypothesis Accepted</p>	<p>Structural shift improves growth efficiency</p>

Source: Compiled from secondary data.

Interpretation:

The findings of the hypothesis test show that tax revenue and economic growth in India are strongly and statistically significantly correlated. The strong positive correlations between direct and indirect taxes and GDP ($r = 0.98$ and $r = 0.97$, respectively) show how closely they are related to economic performance. Regression analysis, however, reveals that direct taxes have a higher effect on GDP ($\beta_1 = 0.72$) than indirect taxes ($\beta_2 = 0.41$). This implies that although both types of taxes support economic expansion, direct taxes are more important.

Comparative study supports the findings by demonstrating that direct taxes have a greater impact on GDP than indirect taxes. Additionally, ratio analysis shows that while a decrease in the use of indirect taxes is indicative of a structural improvement in the tax system, an increase in the Direct Tax-to-GDP ratio is positively correlated with economic growth. As a result, all null hypotheses are disproved, proving that tax revenue has a major influence on economic growth and that India's continuous transition to direct taxation improves fiscal efficiency and promotes sustainable development.

Further the researcher has developed a multiple regression equation conducting Multiple Regression Analysis, explaining impact and calculation of Direct Tax (DT) and Indirect Tax (IT) on Gross Domestic Product (GDP); as follow.

Table: 4 Multiple Regression Analysis - Equation Development

Variable	Coefficient (β)	Standard Error	t-value	P-value	Interpretation
<i>Intercept (β_0)</i>	1,25,000	-	-	-	Base GDP level when taxes are zero
<i>Direct Tax ($DT - \beta_1$)</i>	0.72	0.056	12.71	0.000	Strong positive and significant impact
<i>Indirect Tax ($IT - \beta_2$)</i>	0.41	0.048	8.50	0.000	Moderate positive and significant impact

Source: Compiled from secondary data.

Model Equation:

$$GDP = \beta_0 + \beta_1 (Direct\ Tax) + \beta_2 (Indirect\ Tax)$$

Where:

GDP = Gross Domestic Product

DT = Direct Tax Revenue

IT = Indirect Tax Revenue

Final Estimated Equation:

$$GDP = 125000 + 0.72 (Direct\ Tax) + 0.41 (Indirect\ Tax)$$

10. CONCLUSION:

"Decoding the Tax–Growth Nexus: A Time-Series Analysis of India’s Direct and Indirect Tax Structure," the current work, provides strong empirical evidence that taxes significantly affect India’s economic growth. The results, which demonstrate a very strong positive link between tax revenue and GDP, are supported by both correlation and regression analysis. Direct taxes are now a more powerful driver of economic growth than indirect taxes, indicating a fundamental shift toward a more efficient and progressive tax system. Between 2000 and 2025, India's tax system saw substantial changes, as seen by higher tax receipts, better tax-to-GDP ratios, and enhanced fiscal capacity. The transition from indirect to direct taxation reflects improved compliance, technology, and regulatory changes like the GST. The long-term pattern shows that even in the face of brief economic fluctuations, a well-designed tax structure is crucial to maintaining economic growth.

To improve the effectiveness of India's tax system, the direct tax framework must be reinforced by growing the number of taxpayers and improving compliance through digital monitoring and AI-driven



technologies. Reducing tax evasion through stricter enforcement and greater transparency will further improve revenue collection. Simultaneously, rationalizing indirect taxes—particularly under GST—is essential. Simplifying the tax system, reducing compliance costs, and bolstering input tax credit strategies can boost efficiency and enhance business operations. Furthermore, keeping indirect tax rates stable will increase investor confidence and economic activity.

Improving the tax-to-GDP ratio should also prioritize increasing the tax base rather than tax rates, as well as encouraging economic formalization and strengthening tax administration capacities. Policymakers should aim to maintain a balanced tax structure that promotes efficiency and equity while encouraging investment and long-term growth. Additionally, integrating cutting-edge technologies like data analytics, digital platforms, and artificial intelligence can significantly enhance tax administration, boost transparency, and reduce corruption. When taken as a whole, these programs will make India's fiscal system more robust, efficient, and growth-oriented.

Longer time horizons and more current data can be used in future research to expand on this study and better capture changing budgetary dynamics and structural economic changes. Comparative studies of rich and developing nations can shed more light on the best tax systems and how they affect growth. The use of sophisticated econometric methods like the Autoregressive Distribute Lag Model (ARDL), Vector Autoregression Model (VAR), and Vector Error Correction Model (VECM) can improve comprehension of causality, short-term adjustments, and long-term equilibrium relationships between taxation and GDP. Furthermore, a sector-wise approach can show how taxes affect particular industries, such as services and manufacturing. Future research may examine the effects of digital taxation, fintech innovations, and AI-driven tax administration on efficiency and compliance, as well as more general socioeconomic outcomes like inclusive growth, income distribution, and advancement toward sustainable development goals, given the growing importance of technology.

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