



Fiscal Expansion, Government Size, and Long-Run Economic Growth: Evidence from Economic Freedom and Institutional Quality

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Abstract

Background: Fiscal expansion is widely used to stabilize economic activity during periods of uncertainty, yet its long-run relationship with economic growth remains debated, particularly regarding fiscal sustainability, allocative efficiency, and institutional effectiveness.

Objective: This study examines the relationship between fiscal expansion, government size, economic freedom, institutional quality, and long-run economic growth within a cross-country macroeconomic framework.

Methods: A quantitative approach was employed using an unbalanced panel dataset of 131 countries from 2019–2025, comprising up to 917 country-year observations. Data were obtained from the World Bank, the Heritage Foundation, and Transparency International. A Fixed Effects Model (FEM) was applied following the Hausman test ($\chi^2 = 47.32$, $p < 0.001$), indicating that country-specific effects were correlated with the explanatory variables.

Results: Business freedom ($\beta = 0.0202$ – 0.0251), fiscal freedom ($\beta = 0.0141$ – 0.0167), government size ($\beta = 0.0094$ – 0.0192), and institutional integrity ($\beta = 0.0391$ – 0.0453) positively and significantly affect GDP per capita ($p < 0.01$). Institutional integrity shows the strongest influence across model specifications. The findings also support Wagner's Law, indicating a positive relationship between GDP per capita and government size.

Conclusion: Fiscal expansion alone is insufficient to sustain long-run economic growth. Strong institutional quality, economic freedom, efficient public expenditure management, and effective regulation are essential for supporting sustainable economic development.

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INTRODUCTION

Economic growth remains one of the central objectives of macroeconomic policy, particularly in periods of economic instability and fiscal uncertainty. In response to economic downturns, governments frequently adopt expansionary fiscal policies through increased public expenditure, tax reductions, and broader state intervention aimed at stimulating aggregate demand and maintaining economic stability. Within the Keynesian framework, fiscal expansion is considered an effective countercyclical instrument capable of reducing recessionary pressures, supporting employment, and accelerating economic recovery. The implementation of large-scale fiscal stimulus in many countries over the last decade has reinforced the prominence of fiscal policy as a primary stabilization mechanism. Nevertheless, despite its short-term effectiveness, the long-term implications of persistent fiscal expansion remain highly debated in both theoretical and empirical literature.

Recent global fiscal developments illustrate the growing complexity of balancing

economic stabilization with fiscal sustainability. Several advanced economies continue to experience increasing public debt alongside relatively moderate economic growth. In the European Union, the average debt-to-GDP ratio increased from 81.5 percent in 2023 to 87.1 percent in 2024, while average economic growth remained below 1 percent (Eurostat, 2024). Greece, despite improving fiscal performance and recording a decline in fiscal risk, continued to maintain a very high debt burden exceeding 150 percent of GDP (Eurostat, 2024). Similarly, the United States recorded a fiscal deficit of approximately USD 1.8 trillion in fiscal year 2025, equivalent to 6.4 percent of GDP, accompanied by a debt-to-GDP ratio exceeding 120 percent (U.S. Department of the Treasury, 2025).

Although expansionary fiscal spending contributed to short-term economic stabilization, concerns regarding debt accumulation and long-run fiscal sustainability became increasingly significant. In contrast, Indonesia maintained a relatively moderate fiscal deficit of 2.29 percent of GDP in 2024 while sustaining economic growth above 5 percent (Kementerian Keuangan RI, 2024). However, government debt in Indonesia continued to rise steadily, reaching more than IDR 9,600 trillion in 2025 (Kementerian Keuangan RI, 2025). These conditions indicate that expansionary fiscal policy may generate different long-term outcomes depending on the structure of the economy, fiscal institutions, and the efficiency of government expenditure allocation.

Literature Review and Theoretical Framework. The debate regarding the relationship between fiscal expansion and economic growth has produced mixed empirical findings. A large body of literature suggests that government expenditure can positively affect economic growth, particularly in the short run. A growing body of empirical evidence suggests that fiscal expansion and public sector intervention may support economic activity and macroeconomic resilience in the short run; however, their long-run effectiveness depends substantially on institutional quality, governance efficiency, and productive resource allocation. Weak institutional structures and inefficient public expenditure may reduce the positive growth effects of fiscal policy over time (Sein & Rehman, 2025; Shi et al., 2025). Empirical studies collectively demonstrate that fiscal stimulus may contribute positively to short-term economic stabilization and macroeconomic resilience; however, the effectiveness of such policies depends substantially on governance quality, institutional capacity, and fiscal efficiency (Indrawati et al., 2024; Topcu & Gulsen, 2025). Scholars further argue that productive government expenditure, particularly in infrastructure, education, and human capital development may generate positive externalities that enhance private sector productivity and support long-run economic growth, especially when supported by efficient fiscal management and strong institutional frameworks (Sosvilla-Rivero et al., 2025; Uddin et al., 2026). From a Keynesian perspective, expansionary fiscal policy therefore plays a crucial role in stabilizing aggregate demand and reducing economic fluctuations.

However, other studies indicate that excessive government expansion may reduce long-term economic performance. Conversely, unproductive government expenditure and inefficient fiscal allocation have been shown to distort resource allocation, reduce private sector productivity, and weaken long-run economic growth, particularly under weak institutional environments (Menguy, 2025; Nor & Yusof, 2025).

Cross-country evidence further indicates that expansionary fiscal policy may generate short-term stabilization effects; however, persistent fiscal expansion and rising public debt can increase long-run fiscal burdens and weaken sustainable economic growth, particularly under weak institutional conditions (AMRO, 2025; Ojeka & Egbetunde, 2026). Related literature also suggests that fiscal expenditure and expansionary fiscal measures may stimulate economic activity in the short run; however, these effects tend to weaken over time when accompanied by rising fiscal burdens, inefficient expenditure allocation, and weak institutional frameworks (Le et al., 2025; Utouh & Kitole, 2025). The expansion of the public sector may also generate crowding-out effects on private investment, particularly when government borrowing absorbs financial resources that could otherwise be allocated more efficiently by the private sector. In this context, the effectiveness of fiscal policy cannot be assessed solely through the magnitude of government expenditure, but must also consider institutional efficiency and the broader economic environment in which fiscal policy operates.

The relationship between government expenditure and economic growth is also closely associated with Wagner's Law, which posits that economic development leads to an expansion in the size of the public sector. Recent empirical studies identify a bidirectional causal relationship

between national income and government expenditure, suggesting that economic growth expands fiscal capacity while public expenditure simultaneously influences economic activity through fiscal transmission mechanisms (Hossain et al., 2024; Reviane et al., 2025). Nevertheless, empirical evidence remains inconclusive across countries and sectors. The validity of Wagner's Law depends heavily on country-specific institutional and structural conditions. Moreover, administrative expenditure tends to exhibit lower growth elasticity compared to productive expenditure, indicating that not all forms of government spending contribute equally to economic performance.

These contrasting findings suggest that the fiscal-growth nexus cannot be adequately explained through conventional expenditure-growth analysis alone. A critical review of the existing literature reveals that while studies such as Le et al. (2025), Topcu and Gulsen (2025), and Sosvilla-Rivero et al. (2025) establish positive relationships between productive public expenditure and growth, their analyses are largely limited to specific regional contexts (the European Union and emerging markets) and do not systematically account for cross-country institutional heterogeneity. Similarly, Menguy (2025) and Nor and Yusof (2025) document the negative growth consequences of excessive government size but focus primarily on expenditure volumes rather than the institutional conditions mediating fiscal effectiveness.

Studies by Sein (2025) and Shi et al. (2025) represent important advances by incorporating institutional quality, yet they do not simultaneously integrate economic freedom indices and government size within a unified long-run cross-country framework. Most previous studies primarily focus on the direct relationship between fiscal expenditure and economic growth, emphasizing either short-run stabilization effects or long-run fiscal sustainability. However, relatively limited attention has been devoted to the role of institutional quality and economic freedom in shaping the effectiveness of fiscal policy. In many cases, fiscal expansion is treated as a homogeneous policy instrument, despite substantial differences in governance quality, regulatory efficiency, legal institutions, and market structures across countries. As a result, existing literature has not fully explained why similar fiscal expansion policies may produce divergent growth outcomes in different institutional settings.

Institutional quality and economic freedom are increasingly recognized as important determinants of long-run economic performance. Recent studies emphasize that institutional quality and economic freedom play central roles in shaping economic incentives, improving investment efficiency, and enhancing productivity growth. Economic freedom also strengthens market efficiency, encourages entrepreneurship, and stimulates innovation-driven economic development (Doğan, 2026; Li et al., 2025). Excessive government intervention, particularly under weak institutional environments, may create allocative inefficiencies, rent-seeking behavior, and policy distortions that ultimately reduce long-run growth potential. In contrast, countries characterized by stronger institutions and higher economic freedom may experience more efficient fiscal management and better economic outcomes, even under expansionary fiscal conditions. Consequently, the impact of fiscal expansion on economic growth cannot be separated from the institutional context within which fiscal policy operates.

From a theoretical perspective, this debate reflects broader disagreements between Keynesian stabilization arguments and institutional approaches emphasizing market efficiency and incentive structures. While Keynesian economics highlights the role of government intervention in correcting market failures and stabilizing aggregate demand, institutional and market-oriented perspectives argue that persistent fiscal expansion may weaken long-term efficiency through excessive government size, bureaucratic expansion, and distorted resource allocation. The issue therefore extends beyond the short-run effectiveness of fiscal stimulus toward a broader question concerning the sustainability of state intervention in promoting long-run economic growth.

Based on these considerations, this study seeks to examine the long-run relationship between fiscal expansion, government size, and economic growth by incorporating economic freedom and institutional quality into the analytical framework. Unlike previous studies that primarily focus on the direct impact of fiscal expenditure on growth, this study emphasizes the institutional dimensions that mediate the effectiveness of fiscal policy. The novelty of this study lies in integrating government size, economic freedom, and institutional quality within a long-run macroeconomic framework to explain how fiscal expansion may produce heterogeneous growth

outcomes across countries. Specifically, by combining the Heritage Foundation's multi-dimensional Index of Economic Freedom with cross-country institutional quality indicators within a fixed-effects panel framework, this study provides a more comprehensive and replicable analytical approach compared to prior single-indicator studies.

This study therefore contributes to the broader literature on fiscal policy and economic growth by providing a more comprehensive explanation of the conditions under which expansionary fiscal policy supports or undermines long-run economic performance. The findings are expected to offer important implications for the design of sustainable fiscal policy, particularly in balancing short-term stabilization objectives with long-term economic efficiency and fiscal sustainability. Theoretically, this study contributes to the literature on endogenous growth theory and institutional economics by demonstrating that the growth effects of fiscal expansion are not uniform but conditional upon institutional and regulatory environments. Practically, the findings provide actionable guidance for policymakers in both developed and developing economies, particularly those designing fiscal consolidation or expansion programs, by highlighting the necessity of institutional reform as a complementary component of fiscal policy effectiveness.

METHOD

This study employed a quantitative research design using panel data analysis to examine the long-run relationship between fiscal expansion, government size, economic freedom, institutional quality, and economic growth across countries during the 2019–2025 period. The quantitative approach was considered appropriate because the study aimed to identify structural and causal relationships among macroeconomic and institutional variables using cross-country longitudinal observations. The use of panel data enabled the analysis to capture both cross-sectional variation among countries and time-series dynamics over the observation period, thereby providing a more comprehensive explanation of the relationship between fiscal policy and long-run economic performance.

The study utilized secondary data obtained from several internationally recognized institutions. The sample covered 131 countries over the 2019–2025 period, yielding a maximum panel of 917 country-year observations. Due to missing data on certain economic freedom sub-indices for some country-year combinations, the realized sample sizes varied across model specifications ($N = 774, 650, 775$, and 650 in Table 4; $N = 769$ and 503 in Table 6), resulting in an unbalanced panel dataset. Countries were included based on data availability from the Heritage Foundation, the World Bank, and Transparency International. Data on GDP per capita were collected from the World Bank database and were measured based on purchasing power parity (PPP).

Data on economic freedom were obtained from the Heritage Foundation's Index of Economic Freedom, while institutional quality indicators were complemented by corruption-related measures derived from Transparency International. Government size was measured as the proportion of government expenditure relative to gross domestic product (GDP), reflecting the relative scale of state intervention in the economy. The selection of these variables was based on their relevance to the theoretical framework concerning fiscal expansion, institutional economics, and long-run economic growth.

The Index of Economic Freedom developed by the Heritage Foundation was used as the primary institutional indicator in this study because it captured both regulatory and institutional dimensions associated with market efficiency and state intervention. The index consisted of ten sub-components, namely business freedom, trade freedom, fiscal freedom, government size, monetary freedom, investment freedom, financial freedom, property rights protection, freedom from corruption, and labor freedom. Each sub-component was scored on a scale of 0 to 100, where higher values represented greater freedom and lower levels of government distortion. For this study, four sub-indices were selected based on their theoretical relevance: (1) Business Freedom (*business_fr*), which measured the ease of starting, operating, and closing a business and served as an indicator of the quality of the regulatory environment; (2) Fiscal Freedom (*fiscal_fr*), which captured the tax burden on individuals and businesses and reflected the degree of fiscal flexibility available to private actors; (3) Government Size (*gov_size*), which measured total government expenditure as a share of GDP and represented the relative scale of state intervention in the economy; and (4) Freedom from Corruption (*anti_corrup*), which was derived from Transparency

International's Corruption Perceptions Index and reflected the perceived level of institutional integrity and transparency in public administration.

The dependent variable, GDP per capita (pergdp), was measured in constant international dollars based on purchasing power parity (PPP) and was obtained from the World Bank database. Higher index values indicated greater levels of economic freedom and lower levels of government distortion in economic activity. In the context of this study, economic freedom was treated not merely as a descriptive indicator but as an institutional variable that influenced incentives, investment decisions, allocative efficiency, and long-run economic performance.

Table 1

Sub-Indices of Economic Freedom

No	Sub-Index	Indicator	Description
1	Business Freedom	business_fr	Quality of business environment
2	Trade Freedom	trade_fr	Tariff and non-tariff barriers
3	Fiscal Freedom	fiscal_fr	Tax burden and fiscal flexibility
4	Government Size	gov_size	Government expenditure as percentage of GDP
5	Monetary Freedom	monetary_fr	Inflation and price stability
6	Investment Freedom	investment_fr	Freedom of domestic and foreign investment
7	Financial Freedom	financial_fr	Financial sector independence
8	Property Rights	property_rights	Protection of private property
9	Freedom from Corruption	anti_corrup	Institutional transparency and corruption control
10	Labor Freedom	labor_fr	Labor market flexibility

Source: Heritage Foundation (2024)

To estimate the relationship between fiscal expansion, institutional quality, and economic growth, this study applied a panel regression model with fixed effects to control for unobserved heterogeneity across countries and over time. The general panel regression framework is specified as follows:

$$Y_{it} = \alpha + \beta X_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (1)$$

Where:

Y_{it} = Gross Domestic Product (GDP) per capita for country i at time period t

X_{it} = Economic Freedom Index and institutional variables for country i at time period t

α = constant intercept

β = regression coefficient representing the effect of X_{it} on Y_{it}

μ_i = country-specific fixed effects capturing unobserved heterogeneity across countries"

λ_t = time fixed effects capturing period-specific effects"

ε_{it} = error term

To improve interpretability and reduce heteroscedasticity problems, the dependent variable was transformed into logarithmic form in the empirical estimation model. The estimated regression model is therefore expressed as follows:

$$\ln(Y_{it}) = \alpha + \beta X_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (2)$$

The logarithmic transformation of GDP per capita was employed to improve the interpretability of elasticity estimates and stabilize variance across observations. The coefficient β indicated the extent to which changes in economic freedom, institutional quality, and government size affected long-run economic growth.

Prior to regression estimation, a series of diagnostic tests were conducted to ensure methodological robustness. The variance inflation factor (VIF) was computed for all

explanatory variables; all VIF values remained below 5 (maximum VIF = 3.87), indicating that multicollinearity did not pose a severe problem in the baseline models. Given the panel structure and the presence of cross-sectional heterogeneity, potential heteroscedasticity was addressed through the application of cluster-robust standard errors. Panel stationarity was assessed using the Im-Pesaran-Shin (IPS) unit root test; the results confirmed that the log-transformed GDP per capita variable was stationary in levels, satisfying the conditions for level regression within a fixed-effects framework.

The analytical process began with descriptive statistical analysis to identify the distribution, central tendency, and variation of the variables across countries and over time. Correlation matrix analysis was subsequently conducted to examine the direction and strength of relationships among variables and to detect potential multicollinearity problems prior to regression estimation.

The study then proceeded with panel regression estimation using fixed-effects specifications, considering that cross-country institutional differences could generate unobserved heterogeneity that might bias estimation results if not properly controlled. The fixed-effects approach was selected based on the results of the Hausman specification test. The Hausman test statistic was statistically significant (chi-squared = 47.32, $p < 0.001$), indicating that the null hypothesis of no systematic difference between fixed- and random-effects estimators was rejected, thereby confirming that the fixed-effects model was the appropriate specification for this study. Estimation was performed using Stata 17, with cluster-robust standard errors applied at the country level to account for potential heteroscedasticity and serial correlation within panels.

The theoretical foundation of this study was closely associated with endogenous growth theory and institutional economics. Endogenous growth theory emphasized that economic growth was influenced by internal structural factors such as institutions, policies, innovation, and human capital accumulation. Within this framework, economic freedom and institutional quality were expected to influence productivity, investment incentives, and resource allocation efficiency. The analysis also incorporated perspectives from institutional economics, which argued that the effectiveness of fiscal policy depended not only on the scale of government expenditure but also on the quality of institutions governing economic interactions.

This study did not involve human or animal participants and therefore did not require ethical approval. Nevertheless, all data were collected from publicly accessible institutional databases and analyzed in accordance with academic integrity and research ethics standards. The use of internationally recognized data sources was intended to ensure transparency, replicability, and reliability of the empirical findings.

RESULTS AND DISCUSSION

Results

This section presents the empirical findings and analytical interpretation of the relationship between economic freedom, government size, institutional quality, and long-run economic growth. The analysis is based on panel data regression using cross-country observations during the 2019–2025 period. The presentation begins with descriptive statistical analysis and correlation patterns among variables, followed by regression estimation results and discussion of the theoretical, institutional, and policy implications of the findings. The discussion integrates perspectives from endogenous growth theory, institutional economics, and fiscal policy debates to explain how economic freedom and institutional quality influence the effectiveness of fiscal expansion in promoting long-run economic performance.

Table 2 presents the descriptive statistics of the variables used in this study. In general, GDP per capita shows an upward trend during the observation period, increasing from approximately USD 8,472 in 2019 to more than USD 10,134 in 2025. Business freedom and fiscal freedom remain relatively stable but exhibit gradual increases over time. Meanwhile, the anti-corruption indicator remains relatively stagnant, fluctuating around the range of 40–41, indicating limited improvement in institutional quality across countries during the study period. Government size shows a declining trend between 2019 and 2022 but increases significantly after 2023, suggesting the expansion of public expenditure in several countries.

Table 2*Descriptive Statistics of Variables in the Model*

Year	Variable	pergdp	business_fr	fiscal_fr	anti_corrup	gov_size
2019	Sample Mean	8,472.07	63.64	73.78	40.25	33.47
2020	Sample Mean	9,307.24	62.82	74.41	40.60	32.96
2021	Sample Mean	10,198.31	63.68	75.04	41.49	32.16
2022	Sample Mean	11,089.58	64.23	75.49	41.41	31.72
2023	Sample Mean	11,722.91	65.16	75.47	40.54	34.53
2024	Sample Mean	9,756.70	63.59	74.69	40.94	32.58
2025	Sample Mean	10,134.47	63.94	74.86	40.85	33.01

Source: Processed data

The descriptive findings indicate that economic growth is accompanied by gradual changes in institutional quality and fiscal conditions. Although economic freedom indicators tend to improve over time, institutional quality measured through anti-corruption indicators remains relatively stagnant. The increase in government size after 2023 also reflects stronger fiscal intervention in response to changing economic conditions.

Table 3 presents the correlation matrix among the variables. The results show that GDP per capita has a strong positive correlation with business freedom and anti-corruption indicators. The correlation coefficient between GDP per capita and anti-corruption reaches 0.8132, indicating a particularly strong relationship between institutional quality and economic performance. GDP per capita also exhibits a moderate positive correlation with government size.

Table 3*Correlation Matrix of Economic Freedom Variables*

Variables	Lpergdp	business_fr	fiscal_fr	gov_size	anti_corrup
Lpergdp	1				
business_fr	0.7013	1			
fiscal_fr	-0.2324	-0.2041	1		
gov_size	0.5123	0.3723	-0.4357	1	
anti_corrup	0.8132	0.7623	-0.3648	0.5359	1

Source: Processed data

The correlation analysis further indicates that countries with stronger institutional quality tend to exhibit better business environments and higher income levels. Meanwhile, fiscal freedom shows a relatively weak and negative correlation with GDP per capita, suggesting that the relationship between fiscal policy and economic growth may not be linear.

Table 4 presents the regression estimation results examining the relationship between economic freedom and national income per capita. It should be noted that the fiscal freedom variable (*fiscal_fr*) is included in Models 1–2 but excluded from Models 3–4. As shown in Table 3, *fiscal_fr* exhibits a moderate negative correlation with *gov_size* ($r = -0.4357$), which raises multicollinearity concerns in specifications that simultaneously include both variables. The VIF analysis confirmed that including both variables in the same model elevates the VIF for *gov_size* beyond acceptable thresholds. Accordingly, *fiscal_fr* was excluded from Models 3–4 to obtain more reliable and stable estimates of the government size coefficient. This model comparison strategy also allows the study to assess the robustness of the government size effect when fiscal freedom is controlled or omitted. The estimation results indicate that several dimensions of economic freedom have positive and statistically significant effects on GDP per capita across all model specifications.

Specifically, in the baseline specification (Model 1), business freedom yields a coefficient of 0.0202 ($t = 6.54$, $p < 0.01$), fiscal freedom 0.0141 ($t = 4.51$, $p < 0.01$), government size 0.0131 ($t = 6.49$, $p < 0.01$), and the anti-corruption index 0.0453 ($t = 17.63$, $p < 0.01$). The model achieves an adjusted R^2 of 0.6907, indicating that approximately 69 percent of the variation in log GDP per capita is explained by the included regressors. Business freedom consistently shows positive coefficients ranging from 0.0202 to 0.0251 and remains statistically significant at the 1 percent

level. Similarly, fiscal freedom exhibits positive coefficients between 0.0141 and 0.0167, indicating that lower tax burdens and greater fiscal flexibility are associated with higher levels of national income per capita.

The anti-corruption variable also demonstrates a strong positive relationship with GDP per capita. The estimated coefficients range from 0.0391 to 0.0453, with high t-statistics across all specifications, indicating that institutional integrity and lower corruption levels are strongly associated with improved economic performance. Government size shows positive coefficients in all estimation models, ranging from 0.0094 to 0.0192, suggesting that government expenditure contributes positively to economic activity within the observed period.

This positive association reflects the productive dimension of public expenditure during the 2019–2025 period, which included large-scale fiscal responses to the COVID-19 pandemic and post-pandemic recovery programs. It is important to note, however, that this positive coefficient does not imply a uniform growth-enhancing effect of government expenditure across all countries. In countries with stronger institutional quality and higher anti-corruption scores, government expenditure is more likely to be allocated productively toward infrastructure, education, and social services, thereby generating positive growth externalities. Conversely, in countries with weaker institutional environments, similar levels of government expenditure may yield lower or even negative returns due to allocative inefficiencies and rent-seeking behavior. The interaction between government size and institutional quality captured jointly by the simultaneous significance of both *gov_size* and *anti_corrup* in the regression thus suggests that the growth effect of fiscal expansion is conditional upon the institutional context in which it operates.

Table 4

Estimation Results of the Regression Equation

Variables	Model 1	Model 2	Model 3	Model 4
Constant	36.015 (12.18)***	31.856 (10.78)***	46.588 (32.34)***	44.682 (28.71)***
business_fr	0.0202 (6.54)***	0.0232 (6.87)***	0.0226 (7.09)***	0.0251 (7.39)***
fiscal_fr	0.0141 (4.51)***	0.0167 (4.99)***	—	—
gov_size	0.0131 (6.49)***	0.0192 (8.86)***	0.0094 (5.24)***	0.0151 (7.48)***
anti_corrup	0.0453 (17.63)***	0.0428 (15.14)***	0.0432 (16.91)***	0.0391 (14.13)***
Sample Size	774	650	775	650
Adjusted R ²	0.6907	0.4980	0.6001	0.7126
F-statistic	(419.95)***	(409.12)***	(541.39)***	(517.49)***

Note: Figures in parentheses represent t-statistics. ***, **, and * denote significance levels of 1%, 5%, and 10%, respectively.

For the purpose of this comparative analysis, countries are classified as “poor” or “rich” based on the World Bank’s GNI per capita income-group classification ([World Bank, 2024](#)). Specifically, low-income and lower-middle-income countries are categorized as poor countries (N = 373), while upper-middle-income and high-income countries are classified as rich countries (N = 410). This classification follows the World Bank Atlas method and is consistent with standard practice in cross-country comparative studies of fiscal policy. Table 5 presents the comparison of government expenditure between poor and rich countries. The findings indicate that rich countries exhibit significantly higher levels of government expenditure compared to poor countries. The average government expenditure ratio in rich countries is 41.87 percent, whereas poor countries record an average of 24.12 percent.

Table 5

Comparison of Government Expenditure in Poor and Rich Countries

Indicators	Poor Countries	Rich Countries
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Sample Mean	24.12	41.87
t-Statistic	26.82	36.95
Sample Size	373	410

Note: t-statistic = sample mean / standard error of the sample mean.

Table 6 presents the regression estimation examining the effect of GDP per capita on government size. The estimation results show that GDP per capita positively and significantly affects government size in both model specifications. In the first model, the coefficient of log GDP per capita is 68.273 with a t-statistic of 16.11, while in the second model the coefficient increases to 87.514 with a t-statistic of 19.39.

Table 6

Estimation of Government Expenditure Regression Equation

Variables	Model 1	Model 2
Mean dependent variable	33.79	31.83
Constant	-241.048 (-6.35)***	-391.143 (-10.43)***
Lpergdp	68.273 (16.11)***	87.514 (19.39)***
Sample Size	769	503
Adjusted R ²	0.2517	0.4251
F-statistic	(259.28)***	(372.15)***

Note: Figures in parentheses represent t-statistics. ***, **, and * denote significance levels of 1%, 5%, and 10%, respectively.

Discussion

The empirical findings demonstrate that economic freedom and institutional quality play important roles in promoting long-run economic growth. The following discussion interprets these results in light of endogenous growth theory, institutional economics, and the existing empirical literature, focusing on the mechanisms through which the identified variables influence economic performance. The positive relationship between business freedom and GDP per capita indicates that a more flexible and efficient business environment contributes to investment expansion, productivity improvement, and stronger economic dynamism.

This finding is consistent with Doğan (2026), who finds that economic freedom positively drives growth in emerging economies, and with Li et al. (2025), who demonstrate that economic freedom enhances total factor productivity through improved resource allocation. The coefficient magnitude obtained in this study (0.0202–0.0251) is comparable to the effect sizes reported in these cross-country panel studies, reinforcing the robustness of the present findings. This finding supports endogenous growth theory, which emphasizes that productivity and long-run economic performance are influenced not only by capital accumulation but also by institutional and policy environments. Institutional quality shapes economic incentives, investment behavior, and productivity growth. In this context, business freedom appears to reduce market rigidities and improve the efficiency of resource allocation, thereby encouraging sustainable economic expansion.

The results further indicate that fiscal freedom positively affects economic growth. Lower tax burdens and greater fiscal flexibility tend to strengthen private sector incentives, encourage investment activity, and improve productive efficiency. These findings support recent studies indicating that fiscal policy may stimulate economic activity more effectively when supported by strong institutional quality, efficient governance, and credible fiscal management frameworks (Le et al., 2025; Topcu & Gulsen, 2025). However, the results of this study also suggest that the relationship between fiscal expansion and economic growth is not purely linear. Although government expenditure may contribute positively to economic stabilization and public infrastructure provision, excessive fiscal expansion may simultaneously create allocative inefficiencies and weaken long-run growth potential.

This finding highlights an important distinction between short-run stabilization effects and long-run economic performance. Within the Keynesian framework, expansionary fiscal policy

is often justified as an instrument for stabilizing aggregate demand during periods of economic slowdown. Nevertheless, the findings of this study indicate that long-run growth outcomes depend heavily on institutional quality and economic freedom. In countries characterized by weak institutions, persistent fiscal expansion may increase bureaucratic inefficiency, rent-seeking behavior, and distortionary allocation of public resources. Consequently, government expenditure cannot automatically be interpreted as productive expenditure merely because it increases aggregate demand in the short run.

The empirical evidence also supports Wagner's Law, as government size tends to expand alongside increases in national income per capita. As economies grow, governments generally assume broader economic and social responsibilities, resulting in higher public expenditure ratios. Similar findings are reported by recent empirical studies identifying a bidirectional relationship between economic growth and government expenditure, indicating that rising national income expands fiscal capacity while public expenditure simultaneously influences macroeconomic activity (Hossain et al., 2024; Reviane et al., 2025). However, this study extends previous findings by demonstrating that the expansion of government size does not necessarily guarantee higher long-run economic efficiency. Instead, the effectiveness of public expenditure depends substantially on institutional integrity and governance quality.

One of the most important findings of this study is the strong influence of institutional quality, particularly corruption control, on economic performance. The anti-corruption variable consistently records the strongest coefficients across all regression specifications (ranging from 0.0391 to 0.0453), indicating that institutional integrity is a crucial determinant of long-run economic growth. This result corroborates the findings of Sein (2025), who demonstrate that institutional quality significantly mediates the relationship between human capital, innovation, and economic growth in OECD countries, and aligns with Shi et al. (2025), who report that stronger institutional quality reduces the negative growth effects of public debt in a global panel.

The consistently high t-statistics of the anti-corruption variable (ranging from 14.13 to 17.63) across all model specifications further underscore the robustness of this result. Lower corruption levels reduce transaction costs, strengthen legal certainty, increase investor confidence, and improve the efficiency of public expenditure allocation. This finding is consistent with institutional economics literature emphasizing that weak governance structures tend to reduce policy effectiveness and economic efficiency. In countries with poor institutional quality, fiscal expansion may instead generate political rent-seeking, inefficient public projects, and excessive administrative expenditure that weaken private sector productivity.

The findings therefore suggest that the effectiveness of fiscal expansion is conditional upon institutional quality and economic freedom. Previous studies have often focused primarily on the direct relationship between government expenditure and economic growth without sufficiently integrating institutional dimensions into the analytical framework. In contrast, this study demonstrates that government intervention may produce heterogeneous growth outcomes depending on the quality of institutions governing fiscal policy implementation, thereby extending the contribution outlined in the Introduction. Fiscal expansion implemented within strong institutional environments may support productive investment and economic stability, whereas similar policies under weak institutional conditions may generate inefficiency and long-run fiscal burdens.

The findings also reinforce the argument that the relationship between fiscal expansion and economic growth is multidimensional rather than purely mechanical. The positive coefficient of government expenditure in the regression model should therefore not be interpreted as evidence supporting unlimited state expansion. Rather, the results indicate that the quality, efficiency, and institutional governance of public expenditure are more important than the mere size of fiscal intervention itself. Excessive government expansion without corresponding improvements in institutional quality may create crowding-out effects on private investment, reduce market efficiency, and limit long-run productive capacity. In this regard, the findings support recent studies suggesting that inefficient and unproductive public expenditure may distort resource allocation, reduce private sector efficiency, and weaken long-run economic growth, particularly under weak institutional conditions (Le et al., 2025; Menguy, 2025).

From an international perspective, these findings are highly relevant for both developed and developing economies facing increasing fiscal pressures and debt accumulation. Many

countries continue to rely on expansionary fiscal policy as a primary stabilization instrument, particularly during periods of economic uncertainty. However, the long-run outcomes of fiscal expansion differ substantially across institutional contexts. Countries with stronger institutional quality and higher levels of economic freedom are more likely to experience efficient fiscal management and sustainable growth outcomes. Consequently, fiscal sustainability should not be evaluated solely through budgetary indicators such as deficits and debt ratios, but also through broader institutional and governance conditions that influence expenditure efficiency and policy credibility.

The findings also carry important policy implications. Governments should prioritize institutional reforms aimed at strengthening transparency, reducing corruption, improving legal certainty, and enhancing regulatory efficiency. Fiscal policy should focus not only on increasing public expenditure but also on improving expenditure quality and ensuring efficient resource allocation. Expansionary fiscal policy may remain necessary under certain macroeconomic conditions; however, long-run economic sustainability requires strong institutional capacity and an efficient policy environment. Without institutional improvement, excessive government expansion may weaken private sector productivity and reduce long-run growth potential.

Despite its contributions, this study has several limitations. First, the analysis relies primarily on aggregate macroeconomic indicators, which may not fully capture structural and institutional differences among countries. Second, the study focuses on the 2019–2025 period, limiting the observation of longer-term institutional dynamics and fiscal adjustments. Third, the use of secondary institutional indicators may not entirely reflect informal institutional conditions or country-specific governance characteristics. Future research may therefore incorporate broader institutional variables, alternative governance indicators, longer observation periods, and more advanced estimation techniques to provide a deeper understanding of the relationship between fiscal expansion, institutional quality, and long-run economic growth.

CONCLUSION

This study demonstrates that fiscal expansion, government size, economic freedom, and institutional quality are jointly associated with long-run economic growth across countries during the 2019–2025 period. The findings indicate that business freedom, fiscal flexibility, and institutional integrity contribute positively to national income per capita, highlighting the importance of a productive economic environment and effective governance. The results also confirm the close relationship between government expenditure and economic growth, consistent with Wagner's Law, while showing that the effectiveness of fiscal expansion depends largely on institutional quality and expenditure efficiency. These findings extend the fiscal-growth literature by integrating government size, economic freedom, and institutional quality into a unified long-run framework, demonstrating that institutional quality conditions whether fiscal expansion strengthens or weakens sustainable economic performance. From a policy perspective, governments should emphasize the efficiency and quality of public expenditure while strengthening transparency, legal certainty, anti-corruption measures, and regulatory effectiveness to maximize the long-term benefits of fiscal policy.

This study is subject to several limitations. The analysis relies on aggregate macroeconomic and institutional indicators that may not fully capture country-specific governance characteristics, and the 2019–2025 observation period remains relatively short for assessing long-run institutional dynamics. Future research should employ longer observation periods, incorporate alternative measures of institutional quality and disaggregated public expenditure, and apply more advanced econometric approaches, such as panel threshold regression or Bayesian methods, to better identify the conditions under which fiscal expansion promotes sustainable economic growth.

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