# ECONOMIC GROWTH AND GOVERNANCE: A CROSS-NATIONAL STUDY

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**ARTICLE HISTORY**
**Received:** 28 July 2025 **Revised:** 11 August 2025 **Published:** 25 August 2025

## ABSTRACT
In recent years, growing attention has been directed toward understanding how democracy influences a nation's economic growth. While previous studies have produced mixed findings, this research investigates the extent to which democracy contributes to economic prosperity and whether this effect is influenced by a country's level of corruption. Utilizing secondary data from 128 countries, drawn from the Economist Democracy Index and GDP statistics published by the Economist and World Bank in 2022, the study employs linear regression to explore the causal link between democratic governance and economic outcomes. Additionally, moderation analysis is used to assess how corruption levels modify this relationship. The results reveal a positive association between democracy and economic growth, with corruption acting as a significant moderating factor. Specifically, nations with lower corruption levels benefit more from democratic institutions, while those with higher corruption levels experience a diminished or even adverse impact. These findings provide valuable insights for policymakers and practitioners by highlighting the importance of aligning democratic reforms with anti-corruption strategies. The study underscores that reducing corruption is essential to maximizing the economic benefits of democracy and offers strategic recommendations for promoting sustainable economic development through improved governance.
**Keywords:** Democracy, GDP, Corruption, Economist Democracy Index, Economic Growth

**CITATION INFORMATION:** Sroidokson, N., Pattanaworapan, K., Tantichativat, P., Tangnisaitrong, P., & Tripopsakul, S. (2025). Economic Growth and Governance: A Cross-National Study. *Procedia of Multidisciplinary Research, 3*(8), 16.

# INTRODUCTION

In today's global context, the interconnection between economic growth, governance quality, and political systems has become increasingly significant, particularly for developing countries (Acemoglu & Robinson, 2012). While traditional economic models have focused primarily on tangible assets and industrial productivity as key indicators of growth, the modern digital era necessitates the inclusion of additional factors, namely, democracy and corruption, in growth analyses (Kaufmann, Kraay, & Mastruzzi, 2009). To foster innovation, attract investment, and promote sustainable development, democratic institutions and effective anti-corruption measures have emerged as essential components (Treisman, 2007). Recently, political economists and development practitioners have shifted their focus from purely economic indicators toward incorporating democratic governance and corruption control as core determinants of national economic performance (North, 1990). Although establishing democratic systems and implementing anti-corruption initiatives may entail short-term costs, they are associated with considerable long-term benefits. These include improved international reputation, increased foreign investment, enhanced public service delivery, and the creation of a more favorable business environment. Together, these institutional factors support sustainable economic growth, often reflected in rising GDP figures (Barro, 1996).

Previous research has consistently shown that nations characterized by strong democratic institutions and lower levels of corruption tend to exhibit greater stability and more consistent economic development. To assess institutional quality and growth potential, indices such as the Economist Intelligence Unit's Democracy Index and Transparency International's Corruption Perceptions Index have become widely used benchmarks (Mauro, 1995). However, further empirical investigation is required to better understand the complex dynamics between democracy, corruption, and national economic growth. While earlier studies acknowledge the positive effects of democratic governance and corruption control, the strength and nature of these relationships remain debated.

Accordingly, this study seeks to explore the causal relationships among a country's level of democracy, its corruption context, and its economic development. The remainder of this paper is structured as follows: Section 2 presents a review of the literature on the interplay between democracy, corruption, and economic growth. Section 3 outlines the research methodology. Section 4 details the data analysis and hypothesis testing. Section 5 discusses the key findings. Finally, Section 6 offers conclusions, discusses limitations, and proposes directions for future research.

# THEORETICAL FRAMEWORK AND LITERATURE REVIEWS

The relationship between democracy and economic growth has long been a subject of debate among scholars and policymakers. This complex dynamic holds substantial implications for development policy across the globe. Early research produced mixed findings. On one hand, some scholars argue that democracy fosters institutional stability, reinforces the rule of law, and safeguards property rights—factors that are crucial for encouraging investment and innovation. For instance, Acemoglu, Naidu, Restrepo, and Robinson (2019) found that democratization can increase GDP per capita by nearly 20% over time. On the other hand, some argue that authoritarian regimes may be better positioned to implement bold economic reforms and maintain the political stability needed for growth. This argument is reflected in the "Lee thesis," named after Singapore's former Prime Minister Lee Kuan Yew, which suggests that centralized authority can drive rapid economic development in certain autocratic contexts (Barr, 2014).

More recent studies have aimed to reconcile these contrasting views. A meta-analysis by Doucouliagos and Ulubaşoğlu (2008), covering 84 studies, concluded that although democracy may not directly lead to economic growth, it exerts strong indirect effects by enhancing human

capital, reducing inflation and political instability, and expanding economic freedoms. Increasingly, the quality of institutions has been emphasized as a central factor in this debate. Rodrik and Wacziarg (2005) argue that it is not merely democracy, but the robustness of democratic institutions—such as a free press, independent judiciary, and checks on executive power—that fuels economic growth. Moreover, the impact of democracy on growth appears to be context-dependent. Przeworski and Limongi (1993) suggest that a country's level of development may influence how democracy affects its economy, with developed and developing nations experiencing potentially different outcomes.

The link between corruption and economic growth has also been widely explored in political science and economics. Corruption, often defined as the misuse of public office for private gain, is generally seen as a significant impediment to economic progress. Foundational research by Mauro (1995) demonstrated that corruption depresses private investment, thereby slowing economic growth. This occurs because corruption increases the risks and costs of doing business, effectively functioning as an unofficial tax. Additionally, corruption distorts resource allocation, favoring large infrastructure projects—often selected for their rent-seeking potential—over essential investments in education and health, as noted by Tanzi and Davoodi (1998). Such inefficiencies undermine long-term productivity and development.

Institutional quality plays a critical role in mediating the effects of corruption. According to Acemoglu and Robinson (2012), countries characterized by extractive institutions—those that concentrate power and foster corruption—tend to experience slower economic growth compared to those with inclusive institutions. Corruption erodes the rule of law, weakens bureaucratic effectiveness, and diminishes public trust in government—factors essential for sustainable economic development.

Nonetheless, some scholars have presented a more nuanced view. The "grease the wheels" hypothesis, introduced by Leff (1964) and Huntington (1968), proposes that in the presence of inefficient bureaucracies, certain forms of corruption might improve productivity and facilitate economic activity. However, more recent empirical studies have largely refuted this claim. Pellegrini and Gerlagh (2004) identified several transmission channels—such as reduced investment, education, trade openness, and political stability—through which corruption adversely affects growth. Among these, trade openness and investment emerged as the most significant pathways by which corruption impedes economic progress.

## METHODOLOGICAL APPROACH

The Economist Democracy Index is a comprehensive tool used to evaluate and rank countries based on the strength of their democratic systems and governance structures. It encompasses multiple dimensions such as political participation, civil liberties, government functioning, and the integrity of electoral processes. As such, the index serves as a global measure of how a nation's political freedom and governance are perceived externally. Previous studies have indicated a positive correlation between democracy and economic growth, with the Democracy Index offering a quantifiable representation of a country's democratic standing. This metric captures the broader political environment and helps bridge the gap left by the lack of direct democracy-related economic data by incorporating multiple relevant indicators.

Economic performance in this study is measured using Gross Domestic Product (GDP), which reflects the total monetary value of all goods and services produced within a country during a specified timeframe. GDP is a widely accepted indicator of national economic health. To explore the relationship between democracy and economic growth, the study employed linear regression analysis using SPSS software. Regression analysis enables the identification of statistical relationships between independent and dependent variables, where the independent variable is expected to exert an influence on the dependent one. In this case, economic growth (Y) is modeled as a function of democracy (X), as specified in the regression equation:

Economic growth (Y) = β0 + β1 Democracy + ε (1)
Y = Dependent variable (Economic growth)
X = Independent variable (Democracy)
β0 = Constant (value of Y when X = 0)
β1 = Regression coefficient (change in Y for a 1-unit change in X)
ε = Random error term (accounts for unexplained variation in Y)
Based on this framework, the first hypothesis (H1) is formulated as:
H1: There is a relationship between economic growth and the Democracy Index.
Corruption levels, which vary significantly across nations, are measured using Transparency International's Corruption Perceptions Index (CPI). This index scores countries on a scale from 0 (highly corrupt) to 100 (very clean). For example, Denmark, with a score of 90, is among the least corrupt countries globally. Building on these variations in corruption, the second hypothesis (H2) explores the moderating role of corruption in the democracy-growth relationship:
H2: The relationship between democracy and economic growth is moderated by the level of corruption within a country.
To operationalize this, the study used the CPI scores to quantify corruption and GDP data from 128 countries to measure economic performance.

## FINDINGS

The study analyzed data from 128 countries to explore the relationship between democracy and economic growth. A linear regression model was selected for its interpretability, ease of use, and suitability for assessing assumptions within the dataset. This modeling approach is particularly appropriate for evaluating the association between GDP and the Economist Democracy Index. Before performing the regression, all assumptions of the model were carefully evaluated.
Initially, Pearson's correlation was employed to assess the association between GDP and the Democracy Index. As shown in Table 1, the results revealed a statistically significant positive correlation ($r = 0.285$, $p < 0.001$), indicating a moderate association between democracy and economic growth.

**Table 1** Correlation between democracy index and economic growth

| **Symmetric Measures** | | | | | |
|---|---|---|---|---|---|
| | | **Value** | **Asymptotic Standardized Error** | **Approximate T[b]** | **Approximate Significance** |
| Interval by Interval | Pearson's R | 0.285[a] | 0.0887 | 3.212 | 0.000[c] |
| N of Valid Cases | | 128 | | | |

a .Not assuming the null hypothesis.
b .Using the asymptotic standard error assuming the null hypothesis.
c .Based on normal approximation.

Note: Economic growth = Log of GDP

To address the issue of non-normality in the dependent variable (GDP), a logarithmic transformation was applied. This method is commonly used to normalize data distributions (West, 2022). Following the transformation, normality tests confirmed that the log-GDP variable met acceptable criteria. As shown in Table 2, the Kolmogorov-Smirnov and Shapiro-Wilk tests, along with skewness and kurtosis values, supported the assumption of normality, consistent with the thresholds recommended by Hair, Black, Babin, and Anderson (2010).

**Table 2** Results of the normality test

| **Tests of Normality** | | | | | | |
|---|---|---|---|---|---|---|
| | **Kolmogorov-Smirnov[a]** | | | **Shapiro-Wilk** | | |
| | **Statistic** | **df** | **Sig.** | **Statistic** | **df** | **Sig.** |
| Log GDP | 0.066 | 128 | 0.050 | 0.987 | 128 | 0.301 |
| a. Lilliefors Significance Correction | | | | | | |
| Descriptives | | | | | | |
| | | | | **Statistic** | | **Std .Error** |
| Log GDP | Mean | | | 24.5391 | | 0.0982 |
| | 95% Confidence Interval for Mean | | Lower Bound | 24.3448 | | |
| | | | Upper Bound | 24.7334 | | |
| | 5% Trimmed Mean | | | 24.5461 | | |
| | Median | | | 24.5636 | | |
| | Variance | | | 1.1973 | | |
| | Std .Deviation | | | 1.0942 | | |
| | Minimum | | | 21.7976 | | |
| | Maximum | | | 27.1614 | | |
| | Range | | | 5.3638 | | |
| | Interquartile Range | | | 1.4712 | | |
| | Skewness | | | -0.0946 | | 0.217 |
| | Kurtosis | | | -0.3123 | | 0.431 |

Multiple regression analysis was then conducted to estimate the relationships among democracy, corruption, and economic growth. The log-transformed GDP served as the dependent variable. The regression results are summarized in Tables 3 to 5, which report the effects of democracy, corruption, and their interaction term.

**Table 3** Model summary

| **Model Summary [b]** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** | **Change Statistics** | | | | |
| | | | | | **R Square Change** | **F Change** | **df1** | **df2** | **Sig. F Change** |
| 1 | 0.743 | 0.552 | 0.541 | 0.7412 | .552 | 49.87 | 3 | 124 | 0.000 |
| a. Predictors: (Constant), Democracy, Corruption, Democracy×Corruption | | | | | | | | | |
| b. Dependent Variable: Log GDP | | | | | | | | | |
| b. Dependent Variable: Log GDP | | | | | | | | | |

**Table 4** ANOVA results

| **ANOVA[a]** | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 1 | Regression | 82.237 | 3 | 27.412 | 49.87 | 0.000[b] |
| | Residual | 66.716 | 124 | 0.556 | | |
| | Total | 148.953 | 127 | | | |
| a. Predictors: (Constant), Democracy, Corruption, Democracy×Corruption | | | | | | |
| b. Dependent Variable: Log GDP | | | | | | |

**Table 5** Coefficient results

| **Coefficients[a]** | | | | | |
|---|---|---|---|---|---|
| | **Unstandardized Coefficients** | | **Standardized Coefficients** | | |
| **Model** | **B** | **Std .Error** | **Beta** | **t** | **Sig.** |
| 1 )Constant( | 20.4981 | 0.157 | | 19.214 | 0.000 |
| Democracy | 0.3274 | 0.0681 | 0.452 | 4.807 | 0.000 |
| Corruption | 0.0543 | 0.0072 | 0.703 | 7.542 | 0.000 |
| Democracy×Corruption | -0.0088 | 0.0023 | -0.324 | -3.826 | 0.000 |

a. Dependent Variable: Log GDP

Note: Log GDP = Log transformation of GDP; Democracy = Democracy Score; Corruption = Corruption Perception Index

The results demonstrate that the model accounts for a significant portion of the variance in economic growth ($R^2 = 0.552$). Democracy was found to have a strong, positive influence on economic growth, with an unstandardized coefficient of 0.3274 and a standardized beta of 0.452 ($t = 4.807$, $p < 0.001$). These findings support Hypothesis 1 (H1), indicating that higher levels of democracy are associated with greater economic growth.

In addition to the main effects, the study also tested the moderating role of corruption using the PROCESS macro for moderation analysis developed by Hayes (2012). Table 6 presents the results of this analysis.

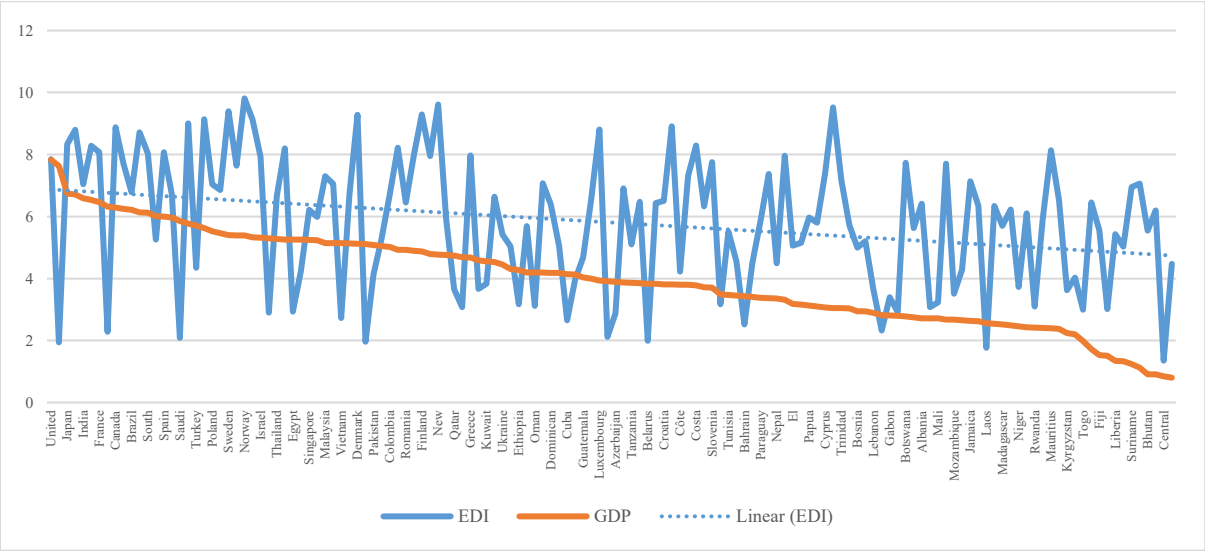


**Figure 1** Relationship between democracy index and economic growth across 128 countries

We ran the study to examine the suggested moderation. Hayes (2012) created the PROCESS macro, which enables regression analysis with different mediator, moderator, and covariate combinations.

**Table 6** Moderation results.

| | GDP | | | |
|---|---|---|---|---|
| | **β** | **SE** | **LLCI** | **ULCI** |
| Constant | 20.4981 | 0.5632 | 19.3842 | 21.6120 |
| Democracy Index (DI) | 0.3274*** | 0.0681 | 0.1926 | 0.4622 |
| Corruption Perception Index (CPI) | 0.0543*** | 0.0072 | 0.0401 | 0.0685 |
| Interaction (DI x CPI) | -0.0088*** | 0.0023 | -0.0133 | -0.0043 |
| $\Delta R^2$ due to Interaction | 0.0419*** | | | |
| F | 49.87 | | | |
| Conditional effects of the focal predictor at values of the moderator(s) | | | | |
| Moderator (Corruption Perception Index) | Effect of Democracy on GDP | | | |
| Low CPI (-1 SD) | 0.4098*** | 0.0731 | 0.2652 | 0.5544 |
| Mean CPI | 0.3274*** | 0.0681 | 0.1926 | 0.4622 |
| High CPI (+1 SD) | 0.2450*** | 0.0731 | 0.1004 | 0.3896 |

Note: *p<0.05; **p<0.01; ***p<0.001; Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit; Low-Income Economics is the reference group.

The moderation analysis is presented in Table 6. The interaction term significantly alters $R^2$ ($\Delta R^2 = 0.0419$, $p<0.001$), and the model's relevance is corroborated by the F-statistic ($F = 49.87$). The significant interaction ($\beta = -0.0088$, $p<0.001$) between the Democracy Index and the Corruption Perception Index suggests that the impact of Democracy on GDP differs depending on the extent of corruption. According to the conditional effects study, nations with higher levels of corruption (lower CPI ratings) have a stronger impact on GDP from democracy than do nations with lower levels of corruption (higher CPI scores) ($\beta = 0.2450$, $p<0.001$). This implies that in countries where corruption is more pervasive, democracy has a greater impact on economic growth. As a result, hypothesis 2 is validated, indicating that the degree of corruption in an economy moderates the relationship between democracy and economic growth. Higher CPI ratings indicate that as corruption declines, the impact of democracy on economic growth weakens. This suggests that in nations where corruption is a problem, strengthening democratic institutions may have a greater effect on economic growth.

## DISCUSSION

Although numerous studies have explored the significant links between democracy, corruption, and economic growth, there remains a lack of quantitative research investigating how these variables interact and collectively influence national economic outcomes. Given that GDP is widely accepted as a primary measure of economic performance, this study uses it as the central indicator of economic development. The Corruption Perceptions Index (CPI) reflects public sector corruption, while the Democracy Index provides a comprehensive assessment of a country's democratic practices and institutions. These variables are critical in shaping a nation's institutional quality, its ability to attract foreign investment, and the effectiveness of governance, each of which plays a vital role in fostering economic development. The findings of this study support the view that democratic institutions and low corruption levels are positively associated with economic growth. This aligns with the work of Acemoglu, Naidu, Restrepo, and Robinson (2019), who found that democratization can lead to nearly a 20% increase in GDP per capita over time. Similarly, Mauro's (1995) findings indicate that corruption severely undermines private investment and slows economic growth. Furthermore, this study reveals a significant moderating effect of corruption on the relationship between democracy and economic performance. Notably, the positive impact of democracy on GDP is more pronounced in countries experiencing higher levels of corruption. This suggests that

democratic reforms may play a particularly important role in promoting economic growth within corruption-prone environments.

These findings contribute to the ongoing scholarly debate regarding the democracy-growth nexus by introducing corruption as a conditional factor. In line with institutional economics theory (North, 1990), this study suggests that institutional arrangements, both formal, like democratic systems, and informal, like corruption culture, interact dynamically in shaping economic outcomes. In countries where corruption is prevalent, the establishment or reinforcement of democratic practices may serve as a counterweight mechanism, enabling more accountability, transparency, and policy responsiveness, which can, in turn, stimulate investor confidence and reduce transaction costs. Another possible explanation lies in the sequencing of reforms. In high-corruption countries, democracy may bring about essential checks and balances that previously did not exist, such as media freedom, judicial independence, and citizen participation, which can begin to dismantle entrenched rent-seeking structures. In contrast, in low-corruption countries, the marginal gains from further democratization may be more limited, explaining the weaker association with GDP growth. This asymmetric effect reinforces the importance of contextualizing institutional reforms based on a country's governance baseline.

The results offer practical implications for national policymakers. Governments are encouraged to invest simultaneously in strengthening democratic institutions and combating corruption. This dual strategy has the potential to accelerate economic progress, enhance investor confidence, and improve a nation's global competitiveness. For instance, targeted investments in judicial transparency, public procurement monitoring, and e-governance systems can support both democratic deepening and corruption control. Moreover, engaging civil society and media as watchdogs can provide bottom-up pressure for reform and improve policy implementation effectiveness. A comprehensive governance approach, especially in countries with high corruption, should integrate efforts to foster democratic participation alongside anti-corruption initiatives. This is particularly relevant for developing economies seeking to build a foundation for sustainable growth. Evidence from transitional economies also suggests that institutional complementarity when democracy and anti-corruption frameworks evolve together yields more robust economic dividends than pursuing either in isolation (Rodrik & Wacziarg, 2005).

The study emphasizes the deep interrelationship between political institutions, governance quality, and economic outcomes. In addition to traditional economic policies, broader institutional reforms are essential to creating an enabling environment for long-term development and national prosperity. These findings also signal to international development agencies and global investors the importance of factoring in institutional dynamics when assessing country-level risks and growth potential. Therefore, fostering democratic resilience while systematically reducing corruption remains a cornerstone of inclusive and sustainable economic advancement.

## CONCLUSION

This study provides strong empirical evidence that the interplay between democracy and corruption is a key determinant of economic growth, particularly within the context of global development. By utilizing GDP data along with the Democracy Index and the Corruption Perceptions Index, the study demonstrates that stronger democratic institutions and lower levels of corruption are generally associated with improved economic outcomes. Notably, the results indicate that the relationship between democracy and economic growth is influenced by corruption levels. In countries with higher corruption, the positive impact of democracy on growth is more substantial. This finding highlights the importance of implementing anti-

corruption strategies in conjunction with democratic reforms, especially in developing nations aiming to enhance governance and drive economic advancement.

However, the study also acknowledges certain limitations. Although the Democracy Index and CPI are valuable proxies for institutional quality, they may not capture all the nuanced aspects of governance that influence growth. Additionally, relying solely on GDP as an indicator may overlook other dimensions of development, such as education, healthcare, and income distribution. Future research should incorporate a broader range of economic and social indicators, such as the Human Development Index or measures of income inequality to provide a more comprehensive understanding of national prosperity.

Moreover, incorporating qualitative methods, such as in-depth case studies or expert interviews, could shed further light on how democratic institutions and anti-corruption measures function in practice and shape economic outcomes. Longitudinal studies examining the long-term effects of democratic transitions and anti-corruption efforts would also enhance our understanding of these relationships. Cross-national comparative analyses could offer additional insights into how contextual factors influence the democracy-growth link across different institutional environments. Finally, while this study focused on corruption as a moderating factor, future research could explore other institutional variables such as the rule of law or bureaucratic quality as potential moderators or mediators to deepen our understanding of the institutional foundations of economic performance.

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**Data Availability Statement:** The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

**Conflicts of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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