



Effects of Corruption, Government Effectiveness and Political stability on Economic Growth: Evidence from Morocco

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ABSTRACT

This study examines the impact of Corruption, government effectiveness and political stability on economic growth in Morocco. We conduct an empirical analysis to quantify the impact of institutional quality on economic growth over the period 1996-2021 by employing two stage least squares. The findings reveal that corruption has a significant negative influence on economic growth, highlighting the importance of anti-corruption measures. On the other hand, political stability emerges as a key driver of economic growth, emphasizing the need for stable political environments to attract investments and foster entrepreneurship. Additionally, the growth of the public spending negatively affects gross domestic product per capita, stressing the significance of prudent fiscal policies and effective public sector management. This research emphasizes the critical role of institutions, political stability, and efficient governance in driving economic growth. Policymakers can leverage these insights to enhance these institutional quality indicators and foster sustainable and inclusive economic development.

Keywords: Governance, Institutional Quality, Corruption, Moroccan Economy, Two Stage Least Squares

JEL Classifications: E60, D73, N16, O4

1. INTRODUCTION

During the 1990s, it became evident that one of the primary socioeconomic objectives of every nation was to attain elevated and enduring economic growth and development, aiming to enhance social welfare.

Throughout history, traditional economists have primarily focused on factors such as physical and human capital formation, technological advancements, knowledge creation and dissemination, and global economic integration as key drivers of economic growth (Dellepiane-Avellaneda, 2010; Helpman, 2004). However, there is growing recognition among experts that governance, institutions, and politics play an equally crucial role in fostering economic growth and development. These factors influence the incentives for individuals and organizations to accumulate resources, innovate, and drive positive change in the

economy (Dellepiane-Avellaneda, 2010; Eregha, 2014; Kaufmann and Kraay, 2003).

The widely accepted notion is that good governance plays a significant role in elevating economic growth and development. Firstly, let's explore the distinctions between government and governance. Traditionally, the term "governance" has been perceived as synonymous with government (Jabeen, 2007). According to Jabeen's study (2007), government represents a group of individuals responsible for running the entire administration of a country. However, the term "governance" pertains to novel practices, methods, or approaches to governing a society. According to UNDP (1997, pp. 2-3), governance can be defined as the utilization of economic, political, and administrative authority to manage a country's affairs at all levels. It encompasses mechanisms, processes, and institutions through which citizens and groups express their interests, exercise their legal rights, fulfill their obligations, and resolve their differences.

Numerous studies have consistently highlighted the pivotal role of governance in shaping the varying rates of economic growth and its critical impact on poverty reduction. Governance acts as a fundamental driver of economic growth, which is a prerequisite for effectively addressing and reducing poverty. Policymakers, development practitioners, and international organizations have echoed the importance of prioritizing good governance as a central pillar in any comprehensive poverty reduction strategy. The recognition of governance as a critical factor in poverty reduction has led to consistent recommendations from various stakeholders in the development community. It serves as a strong call to action for policymakers and practitioners to prioritize governance reforms, strengthen institutions, and promote transparency and accountability in all aspects of governance.

In the theoretical literature, there is no consensus regarding the impact of corruption on economic growth. Some researchers argue that corruption could have positive effects (Leff, 1964; Huntington, 1968; Acemoglu and Verdier, 1998). According to this view, corruption functions akin to piece-rate pay for bureaucrats, incentivizing them to provide government services more efficiently. Additionally, corruption may offer entrepreneurs a means to navigate around cumbersome regulations. Seen from this perspective, corruption acts as a lubricant, streamlining operations and potentially leading to improved economic efficiency.

Corruption is a complex and widespread issue present in every country, serving as an indicator of weak governance. The nature, scale, extent, and impact of corruption exhibit significant variations across the globe. The World Bank (1997) defines corruption as “the abuse of public office for private gain,” occurring when public representatives misuse state resources for personal benefits (Rose-Ackerman, 1997). Research by Shepherd (1998) highlights that developing and transition economies experience higher levels of corruption compared to OECD countries.

The relationship between corruption and various macroeconomic indicators is significant and multifaceted. Corruption has been found to hinder innovative strategies (Anokhin and Schulze, 2009), discourage foreign direct investment and overall investment (Mauro, 1995), and impede the creation of new job opportunities, leading to increased prices of goods and services (Nwabuzor, 2005). Additionally, corruption poses significant challenges to wealth distribution within an economy (Mauro, 1995). Foreign investors and private organizations prefer to invest in countries with more effective governance systems to ensure better utilization of their resources. Several surveys have highlighted that corruption burdens state expenditures and revenue, leading to a decline in the quality of public services. Moreover, corruption is positively associated with the size of the informal economy (Schneider, 1994), exacerbating the tax burden. Given its strong connection to governance, it becomes imperative to quantitatively assess corruption’s impact in different countries.

This research paper is organized into three main sections. The first section presents a comprehensive literature review, examining the link between economic growth and governance, with a specific focus on corruption. This section delves into the existing body

of knowledge, highlighting relevant studies and theoretical frameworks that shed light on the intricate relationship between these variables.

The second section of the paper is dedicated to the methodology used in our analysis. We employed the two-stage least squares (2SLS) method, a powerful technique to address endogeneity issues and obtain unbiased estimates. This section outlines the data sources, variables considered, and the steps taken to implement the 2SLS approach in our study.

Finally, the third section discusses the results obtained from the estimated models. We present and interpret the empirical findings, emphasizing the significance and implications of the relationships between economic growth and governance variables. The discussion of the results includes insights into the effects of corruption on economic growth, the influence of governance indicators, and other relevant observations arising from the 2SLS estimation.

2. LITERATURE REVIEW

Good governance is seen as desirable for fostering an elevated level of economic development. In a system of good governance, individuals are presumed to experience an improved living standard, leading to significant benefits for many less-developed economies. When public life is administered and managed within fair, impartial, accountable, and transparent institutions, the World Bank also acknowledges that good governance exhibits attractive characteristics such as accountability, transparency, effective functioning of the public sector, adherence to the rule of law, and well-established political connections. The essential components of good governance encompass political and bureaucratic accountability, effective public institutions, and absence of corruption, proficient economic management, and social progress (Huther and Shah, 1998; Manasan et al., 1999). To achieve good governance, it is crucial to implement principles that include conducting fair and regular elections and establishing an independent judiciary to enforce laws effectively. However, several challenges threaten good governance, such as corruption, violence, poverty, and factors that weaken fundamental freedoms, participation, security, and transparency. Interestingly, effective governments can be found in both democratic and non-democratic states, challenging the notion that democracies always result in the most efficient governance.

The significance of governance and institutions in economic development is widely recognized in economic studies. Most economists concur that governance plays a pivotal role in shaping a country’s growth performance. The competences of the government, under the umbrella of good governance, are now deemed crucial for maintaining efficient markets and restricting governmental activities to the provision of essential public goods, thereby reducing rent-seeking and government failure (Khan, 2004; 2007). Several empirical studies, using the WGIs, have investigated the relationship between governance and economic growth. The majority of these studies indicate that governance has a significant impact on economic growth.

In a comprehensive study conducted by Eregha (2014), the focus was on exploring the influence of institution and governance variables on the real per capita gross domestic product (GDP) growth within the ECOWAS region during the period from 2000 to 2010. To achieve this, a panel data analysis approach was employed for the estimation. The results of the study demonstrated the significant role played by both institution and governance factors in determining the per capita income growth in the region. These findings highlight the importance of sound institutional frameworks and effective governance practices in fostering economic development and prosperity within the ECOWAS countries.

In a noteworthy study conducted by Bichaka and Christian (2010), the focus was on analyzing the impact of good governance on economic growth in 28 African countries during the period from 1995 to 2005. The study employed time series data to examine the relationship between these two critical factors. The results of the study revealed a compelling and positive correlation between good governance and economic growth in the African context. This finding highlights the importance of effective governance practices and institutions in fostering economic development and prosperity across the continent.

In the research conducted by Mahmoud (2012), panel data analysis was employed to examine the relationship between governance and economic growth in Middle East and North Africa (MENA) countries. The study aimed to determine the extent to which governance practices in the region impact economic growth, specifically focusing on the effect of various governance indicators on GDP growth. The results suggest that governments in MENA countries should concentrate their efforts on improving government effectiveness and enforcing the rule of law to foster economic growth. Enhancing government effectiveness involves strengthening administrative capabilities, ensuring efficient service delivery, and promoting sound economic policies.

Egunjobi, T. Adenike (2013) investigated the impact of corruption on economic growth in Nigeria on an annual time series data from 1980-2009 using regression analysis. Also, the Granger causality test and impulse response function was carried out. The empirical results reveal that corruption per worker exerts a negative influence on output per worker directly and also indirectly on foreign private investment, expenditure on education and capital expenditure per worker.

Huang (2016) used a sample of thirteen Asia-Pacific countries over the 1997–2013 period. The empirical results show that there is a significantly positive causality running from corruption to economic growth in South Korea, a significantly positive causality running from economic growth to corruption in China and no significant causality between corruption and economic growth for the remaining countries.

In their research conducted by Hasan and Erdogan (2017), they investigated the influence of governance on economic growth during economic crises, specifically focusing on changes in institutional quality. The findings of the study revealed

that economic crises do indeed have an effect on the level of institutional quality. Surprisingly, this effect was found to have a positive impact on economic growth. These results highlight the importance of governance and institutional quality in shaping a country's economic performance, especially during challenging economic times.

Cieslik et al. (2019) used a sample of 142 countries for the period 1994–2014 and GMM methods. Using indicators of control of corruption from the World Bank, the lack of corruption is found to have a positive and statistically significant effect on the growth rate of real per capital GDP and increased the investment ratio. Also, the empirical results suggest that corruption directly hinders economic growth by hampering investment.

Su Dinh Thanh et al. (2020) examined the pivotal role of good governance by encompassing various attributes like reduced informal charges, increased transparency, and unbiased policymaking, in enhancing the impact of government expenditure on economic growth within Vietnamese provinces. Notably, the positive effects of government spending on economic growth are amplified when good governance practices interact synergistically with private sector investment.

This literature review examines the link between corruption and economic growth, a widely studied and significant topic in academic research. Corruption's pervasive influence on economic progress has prompted extensive investigation, exploring various perspectives and empirical evidence. By analyzing theoretical frameworks, methodologies, and regional contexts, this review aims to contribute valuable insights into the impact of corruption on economic growth.

In a study conducted by Mauro (1995) that covered a period from 1960 to 1985 and included data from 68 countries, several independent variables were examined. These variables included corruption, terrorism, bureaucratic efficiency index, judiciary, red tape, investment, population, institutional efficiency index, government spending, and political stability index. The findings of the study revealed a significant impact of corruption on the economy. Corruption was found to have a detrimental effect on investment, leading to a subsequent depression in economic growth. This result emphasizes the importance of combating corruption within a country's governance system to foster a conducive environment for investment and overall economic development. Moreover, the study underscores the potential consequences of bureaucratic inefficiency, red tape, and government spending on economic growth. Addressing these issues and improving the efficiency of public institutions and governance can positively influence investment decisions, stimulating economic growth.

According to Rose-Ackerman (1996), corruption causes greater distortions in an economy compared to mere taxation. The existence of incentives for both giving and receiving bribes creates a supply-side aspect to the rent-seeking market, which often goes unnoticed. This can lead policymakers to prioritize certain initiatives, such as public works projects, not based on genuine social needs, but rather because they provide opportunities for bribes.

In a study conducted by Mo (2001), it was shown that a 1% increase in corruption leads to a corresponding decrease of 0.72% in the economic growth rate. This indicates that corruption has a detrimental effect on economic growth, primarily through its association with political instability. In other words, higher levels of corruption are linked to reduced economic growth.

In a separate study conducted by Lahouij (2016) spanning the period from 2002 to 2013, the focus was on six MENA countries. The study utilized both fixed-effect and random-effect models to analyze the relationship between governance indicators and economic growth in the region. The findings of this study revealed a significantly positive effect of the average governance indicators on economic growth in the MENA countries under investigation. This indicates that better governance practices, encompassing aspects like transparency, efficiency, and accountability, play a crucial role in fostering economic development and growth within the region.

In the study conducted by Mocan (2008) analyzing 49 countries over the period 1975-1995, the corruption indexes were found to have no significant impact on economic growth. Despite corruption being widely considered a detrimental factor for economic development, the results of this study suggest that other variables might have played a more prominent role in determining growth during the examined period.

In another study conducted by Tomola and Akinpelumi (2018) covering the period from 1999 to 2015 in Nigeria, the researchers explored the impact of corruption on economic growth using the ordinary least squares model. The results of this study revealed a clear and adverse impact of corruption on economic growth in Nigeria. The findings emphasize that higher levels of corruption hinder economic development and growth, acting as a significant barrier to progress.

A study conducted by Elbargathi and Al-Assaf (2019) analyzing data from 1996 to 2016 across four Arab countries, the researchers examined the impact of corruption, rule of law, and regulatory quality on economic growth using the Vector Error Correction Model (VECM). The findings of this study revealed a significant negative impact of corruption, rule of law, and regulatory quality on economic growth in the Arab countries under investigation. These results suggest that higher levels of corruption, weaker rule of law enforcement, and inadequate regulatory frameworks hinder economic development and growth within the region.

In a notable study conducted by Uzelac et al. (2020) spanning the years 1999-2016 and focusing on 19 Central and Eastern European (CEE) economies, the researchers analyzed the impact of corruption and political stability on economic growth using both Fixed-effects and Random-effects models. The findings from this study reveal significant impacts of corruption and political stability on economic growth in the CEE region. Corruption is found to hinder economic growth, while political stability positively influences economic performance.

In a study conducted by Eleftherios and Panagiotidis (2022). The study examines corruption's measurement and its impact on the economic performance of 83 developing countries from 2012 to 2018. The results show that corruption hinders economic growth in developing countries, with varying effects in different regions. In Latin American countries, corruption's impact on economic growth is mixed, while it is consistently negative in other regions.

In a recent study conducted by My-Linh Thi Nguyen (2022), data was gathered from 16 emerging markets and developing economies in Asia, covering the period from 2002 to 2019. The research utilized the generalized method of moments and threshold model to estimate the research models. The findings from the estimations indicate that government expenditure and corruption control both negatively impact economic growth in the analyzed economies.

3. METHODOLOGY

3.1. Data Sources

In this study, we utilized a comprehensive set of data sources to analyze the relationship between economic indicators and governance factors. The main economic variables, including GDP per capita (US constant 2015), population growth rate, trade openness, public spending on education in % of GDP, urbanization rate, government final consumption expenditure in % of GDP and agriculture value added as a percentage of GDP, were obtained from the World Bank's extensive database covering the period from 1996 to 2021. This dataset provides a robust foundation for assessing economic performance and trends over time. Additionally, we obtained data on political stability, corruption, and government effectiveness from the World Governance Indicators (WGI) database, also maintained by the World Bank. The WGI dataset offers crucial insights into the governance dimensions, allowing us to explore the impact of governance quality on economic outcomes.

Table 1: Variables, symbols, period and sources

Symbols	Variables	Time	Data Sources
GDPCAPITA	GDP per capita at fixed \$US prices, 2015	1996-2021	World Bank
Public_spending	Government final consumption expenditure (% of GDP)	1996-2021	World Bank
Urb	Urbanization rate expressed by Urban population/Total population	1996-2021	World Bank
Openness	Trade Openness	1996-2021	World Bank
VA_agri	Value added of agriculture (% of GDP)	1996-2021	World Bank
Corruption	Control of corruption Index	1996-2021	WGI, World Bank
Educ	Public spending on education (% of GDP)	1996-2021	World Bank
Pop	Population growth rate (%)	1996-2021	World Bank
Gov_effec	Government Effectiveness index	1996-2021	WGI, World Bank
Pol_stability	Political stability index	1996-2021	WGI, World Bank

In addition to the data sources mentioned above, we also conducted a comprehensive analysis of the collected data, presenting descriptive statistics and correlation analysis in Table 1. The descriptive statistics offer a summary of the main economic and governance variables, providing key insights into their central tendencies and dispersions.

3.2. Estimation Method

The least squares estimation of parameters related to institutional quality variables (corruption, government effectiveness, and political stability) may lead to inconsistent estimates due to the endogeneity of GDP per capita growth. This endogeneity creates a positive or negative effect on GDP per capita, causing the least squares estimation to overstate the relationship between institutional quality growth and GDP per capita growth. Additionally, measurement error, if random, attenuates the least squares estimate of parameters towards zero, making it uncertain whether the estimates are upward or downward biased. Furthermore, the presence of time-varying omitted variables can introduce bias in any direction for the least squares estimates on the parameters. As a result, caution must be exercised when interpreting the least squares estimates in light of these potential biases.

The utilization of instrumental variables (IV) as estimators within the classical linear regression model appears straightforward in theory. When the error distribution cannot be assumed independent of the regression distribution, researchers resort to employing the IV model (ai-vi) with a specific set of instruments. However, empirical research encounters a challenge known as “heteroskedasticity,” where the variability of the error terms is not constant across observations. Although the consistency of the IV estimates remains intact in the presence of heteroskedasticity, the standard errors become inconsistent, rendering the results inconclusive.

Despite the correctness of the IV method as an assessment technique, its validity can be questioned in specific applications. To ascertain the significance of instruments, researchers often rely on tests like the one based on Sargan (1958). This test assesses the overidentifying restrictions in the IV model, ensuring that the instruments are not correlated with the error term. The authors have utilized also the Basman test to validate IV estimation. This test assesses the relevance of our instruments, ensuring they are not correlated with the error term.

3.2.1. Model Specification

The empirical approach adopted in this study begins with a modified growth equation, where economic growth, represented by real per capita GDP, is influenced by institutional factors (Corruption, political stability, and government effectiveness) and macroeconomic variables (Urbanization rate, trade openness, value added of agriculture, population growth rate, and public spending). The general growth equation used in this research is expressed as follows:

$$GDPCAPITA_t = \beta_0 + \beta_1 Institutional_Quality_t + \sum \beta_i X_t + \varepsilon_t$$

Where:

$GDPCAPITA_t$: Represents GDP per capita in USD (2015 Constant)
 $Institutional_Quality_t$: Vector of institutional quality indicators which includes corruption, government effectiveness and political stability

X_t : Vector of explanatory variables.

ε : Denotes the error term capturing unobserved factors affecting economic growth.

In our assessment of the impact of institutional quality variables, namely corruption, political stability, and government effectiveness, we have employed a comprehensive approach. To thoroughly understand the influence of each institutional factor on economic growth, we have constructed three separate models, with each model focusing on one institutional quality variable. This systematic approach allows us to gain valuable insights into the distinct contributions of each institutional quality to economic growth, enabling a more nuanced understanding of the complex relationship between institutions and economic development.

$$GDPCAPITA = \beta_0 + \beta_1 Corruption + \beta_2 Urb + \beta_3 VA_Agri + \beta_4 Public_Spending + \beta_5 Educ + \beta_6 Trade\ Openness + \beta_7 Population\ Growth\ Rate + \varepsilon \quad (1)$$

$$GDPCAPITA = \beta_0 + \beta_1 Gov_Effec + \beta_2 Urb + \beta_3 VA_Agri + \beta_4 Public_Spending + \beta_5 Educ + \beta_6 Trade\ Openness + \beta_7 Population\ Growth\ Rate + \varepsilon \quad (2)$$

$$GDPCAPITA = \beta_0 + \beta_1 Pol_Stability + \beta_2 Urb + \beta_3 VA_Agri + \beta_4 Public_Spending + \beta_5 Educ + \beta_6 Trade\ Openness + \beta_7 Population\ Growth\ Rate + \varepsilon \quad (3)$$

In this equation $\beta_0, \beta_1, \dots, \beta_7$ represent the coefficients to be estimated, and ε denotes the error term capturing unobserved factors affecting economic growth. This growth equation allows us to examine the impact of institutional and macroeconomic variables on the economic performance of the countries under study.

Table 2 presents the descriptive statistics of the variables utilized in this study, along with the correlation analysis between them. The findings reveal noteworthy associations among the variables. Specifically, GDP per capita exhibits a negative correlation with corruption, indicating that higher levels of GDP per capita tend to coincide with lower levels of corruption. Conversely, GDP per capita demonstrates a positive correlation with government effectiveness and political stability, suggesting that as GDP per capita increases, there is a tendency for government effectiveness and political stability to also improve. Table 3 shows the expected sign for each variable.

4. RESULTS AND DISCUSSIONS

The results of our analysis demonstrate that the three models, focusing on the institutional quality variables of corruption, political stability, and government effectiveness, exhibit an impressive explanatory power. The adjusted R2 values, ranging from 0.95 to 0.987, signify that approximately 97% to 98% of the total variation in real GDP is accounted for by the independent variables in each

Table 2: Descriptive statistics and correlation analysis results

Parameter	GDPCAPITA	Educ	Openness	Pop	Public_Spending	Urb	VA_Agri	Corruption	Gov_Effec	Pol_Stability
Descriptive Statistics										
Mean	7.8503	0.0534	0.6306	0.0128	0.1697	0.5748	0.1195	-0.2846	-0.1703	-0.3107
Median	7.8927	0.0513	0.6637	0.0130	0.1677	0.5717	0.1186	-0.2856	-0.1782	-0.3636
Maximum	8.1184	0.0676	0.8022	0.0149	0.1942	0.6407	0.1844	0.1033	0.0261	0.3077
Minimum	7.5049	0.0465	0.4180	0.0104	0.1430	0.5202	0.0988	-0.4931	-0.3887	-0.5713
Std. Dev.	0.2042	0.0056	0.1312	0.0012	0.0134	0.0384	0.0173	0.1524	0.1190	0.2100
Skewness	-0.3158	1.2978	-0.2450	-0.4829	0.0688	0.2021	2.2255	0.7320	-0.0193	1.4252
Kurtosis	1.6689	3.8626	1.4842	3.0122	1.9876	1.7114	8.8800	3.0060	2.0890	4.5873
Jarque-Bera	2.3516	8.1042	2.7491	1.0106	1.1309	1.9760	58.9176	2.3222	0.9006	11.5316
Correlation analysis										
GDPCAPITA	1.0000									
Educ	0.6115	1.0000								
Openness	0.9569	0.6064	1.0000							
Pop	-0.7083	-0.5668	-0.6087	1.0000						
Public_Spending	0.7969	0.6791	0.7598	-0.5476	1.0000					
Urb	0.9667	0.7085	0.9176	-0.7820	0.8558	1.0000				
VA_Agri	-0.5586	-0.2988	-0.5640	0.5819	-0.3808	-0.5145	1.0000			
Corruption	-0.5613	-0.4565	-0.5897	0.4212	-0.3921	-0.4649	0.5174	1.0000		
Gov_Effec	0.3862	-0.1134	0.4192	-0.2595	0.0240	0.2273	-0.3772	-0.5122	1.0000	
Pol_Stability	0.6449	0.3133	0.6624	-0.3997	0.4321	0.5083	-0.4820	-0.8638	-0.7305	1.0000

Table 3: Expected sign for each variable

Symbols	Variables	Expected sign
Endogenous variable		
GDPCAPITA	GDP per capita at fixed \$US prices, 2015	
Control variables		
Public_Spending	Government final consumption expenditure (% of GDP)	(+)
Urb	Urbanization rate expressed by Urban population/Total population	(+)
Openness	Trade Openness	(-)
VA_Agri	Value added of agriculture (% of GDP)	(-)
Educ	Public spending on education (% of GDP)	(?)
Pop	Population growth rate (%)	(+)
Institutional quality variables		
Corruption	Control of corruption Index	(-)
Gov_Effec	Government Effectiveness index	(+)
Pol_Stability	Political stability index	(+)

Table 4: 2SLS results - economic growth and corruption

Dependent variable: GDP Per capita (GDPCAPITA) Method of estimation: 2 SLS				
Parameter	Estimate	Std. error	t-Stat	P-value
Public_Spending	-6.27965	1.902381	-3.3	0.001
Urb	5.108759	0.847371	6.03	0.000
Openness	-0.21712	0.255799	-0.85	0.396
VA_Agri	-0.64411	0.904948	-0.71	0.477
Corruption	-0.20681	0.068273	-3.03	0.002
Educ	-0.18545	0.110285	-1.68	0.093
Pop	0.686396	0.216349	3.17	0.002
Intercept (C)	14.36149	1.89403	7.58	0.000
R ²	0.9677			
Instruments tests				
Wu-Hausman	32.6616 (P=0.000)			
Sargan	0.018131 (P=0.8929)			
Basmann	0.011612 (P=0.9142)			

model. This high level of explained variation indicates a strong relationship between the institutional quality factors and economic growth in our study. Moreover, the P-value of the Hausman-Wu test, being <5%, suggests that we can confidently rely on the consistency of our estimators, confirming the validity of our IV approach. Additionally, the p-values of the Sargan and Basman tests, exceeding 5% for all three models, further support the reliability of our IV and the lack of endogeneity concerns. The convergence of these statistical indicators fortifies the robustness of our findings.

Based on the results of Table 4, the impact of corruption on economic growth is found to be highly significant and negative at a 1% level of significance in our analysis. Our findings reveal that a one-unit increase in the corruption index corresponds to a decrease of economic growth by 0.2%. This negative relationship underscores the detrimental effects of corruption on the economic

performance of Morocco. As corruption levels rise, resources are misallocated, investment is deterred, and public trust in institutions diminishes, all contributing to a slowdown in economic growth.

The empirical results indicate that trade openness has a negative relationship with economic growth, but this relationship is not statistically significant. While the negative sign suggests that higher levels of trade openness may be associated with lower economic growth, the lack of statistical significance implies that this relationship may not be robust or strong enough to draw definitive conclusions.

The positive relationship signifies that as urban areas expand and the population increases, Morocco’s economic growth experiences a corresponding rise. Urbanization, with its concentration of economic activities and opportunities, and population growth, which expands the labor force and consumer

Table 5: 2SLS results - economic growth and government effectiveness

Dependent variable: GDP Per capita				
Method of estimation: 2 SLS				
Parameter	Estimate	SE	t-Stat	P-value
Public_Spending	-7.2824	2.87759	-2.53	0.011
Urb	5.31148	1.11714	4.75	0.000
Openness	-0.2513	0.32732	-0.77	0.443
VA_Agri	-1.3214	1.16206	-1.14	0.256
Gov_Effec	0.1593	1.41	0.158	0.3805
Educ	0.02455	0.14453	0.17	0.865
Pop	0.78068	0.28512	2.74	0.006
Intercept (C)	15.8054	2.62498	6.02	0.000
R ²	0.95			
Instruments tests				
Wu-Hausman	35.1154 (P=0.000)			
Sargan	0.06645 (P=0.7966)			
Basman	0.042645 (P=0.8364)			

Table 6: 2SLS results - economic growth and political stability

Dependent variable: GDP Per capita				
Method of estimation: 2 SLS				
Parameter	Estimate	SE	t-Stat	P-value
Public_spending	-4.1081	0.99003	-4.15	0.000
Urb	4.3183	0.46729	9.24	0.000
Openness	-0.1536	0.15646	-0.98	0.326
VA_agri	0.15264	0.57599	0.27	0.791
Pol_stability	0.1937	0.03395	5.7	0.000
Educ	-0.1279	0.06657	-1.92	0.055
Pop	0.51592	0.12511	4.12	0.000
Intercept (C)	12.845	1.06568	12.05	0.000
R ²	0.987			
Instruments tests				
Wu-Hausman	13.8425 (P=0.0019)			
Sargan	0.21661 (P=0.6416)			
Basman	0.139842 (P=0.7084)			

base, emerge as influential drivers of economic development in the context of Morocco. The statistical significance of these relationships underscores their significance for the nation's economic progress.

A 1% increase in the growth of the public sector (public_spending) relative to GDP leads to a decrease in GDP per capita (GDPCAPITA) by approximately 6%. This suggests that government consumption does not have a direct impact on private productivity, but it exerts negative effects on economic growth through various channels. These include government inefficiencies, crowding-out effects, distortionary taxation outcomes, and intervention in free markets, as outlined in Barro (1991). Government spending necessitates financing, which can significantly influence economic growth depending on the means of funding, such as taxes, public borrowing, or central bank lending, as highlighted in Feldstein (1982).

Our research findings demonstrate a significant and positive relationship between political stability and economic growth as shown in the Table 6. The statistical analysis revealed that this association is robust, with a high level of statistical significance at the 1% level. The coefficient estimate of 0.19 indicates that a one-unit increase in the political stability level is associated with a 0.19% of GDP, signifying a positive impact on economic growth. The strong statistical significance of this relationship underscores the crucial role of political stability in fostering economic development. Stable political environments create a conducive atmosphere for investment, entrepreneurship, and long-term planning, contributing to sustained economic growth.

The results of our analysis shown in Table 5, reveal that government effectiveness is positively associated with economic growth. This finding suggests that a more effective and efficient government can have a favorable impact on a country's economic performance. However, it is important to note that this relationship was not found to be statistically significant. The lack of statistical significance indicates that the observed positive association may be due to chance or other unaccounted factors in our analysis.

The empirical findings of this study concerning the influence of institutional factors on economic growth, as measured by real GDP per capita, align with previous research by Mauro (1995), Fayissa and Nsiah (2013), Azam and Emirullah (2014), Lisciandra and Millemaci (2015), Azam (2016), and Awan et al. (2018). These earlier studies have also reported a significant impact of institutional factors on economic growth. The consistency between our results and those of these reputable researchers provides additional support for the importance of institutional quality in shaping a country's economic performance.

5. CONCLUSION

This study has examined the relationship between institutional factors, economic growth, and the public sector in-depth for Morocco between 1996 and 2021 shedding light on critical aspects that influence Morocco's economic performance. Our findings indicate that corruption, political stability, and government effectiveness play significant roles in shaping economic growth trajectories. Specifically, corruption was found to have a significant negative impact on economic growth, highlighting the urgency for robust anti-corruption measures and governance reforms.

Moreover, political stability emerged as a key driver of economic growth, with a strong positive correlation observed. This underscores the importance of fostering stable political environments to attract investments, stimulate entrepreneurship, and ensure long-term planning for sustained economic progress. While government effectiveness displayed a positive association with economic growth, the lack of statistical significance invites further research to deepen our understanding of this relationship. Nevertheless, our study emphasizes the relevance of efficient governance practices and administrative effectiveness in fostering economic prosperity.

Additionally, our analysis revealed that the growth of the public sector has a negative impact on GDP per capita, pointing to

potential drawbacks associated with government spending and its financing. Prudent fiscal policies and efficient public sector management are crucial to mitigate adverse effects on economic growth.

This study recommends key policy measures to enhance economic development in Morocco. Firstly, policymakers should address institutional quality's significant impact on economic performance by implementing targeted reforms. Secondly, governments can stimulate economic growth by enforcing robust rule of law frameworks, fostering investor confidence and productivity. Thirdly, promoting transparent regulatory environments can mitigate corruption and bureaucratic obstacles, attracting investment and fostering sustainable growth.

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