
INSTITUTIONS AND THE SUSTAINABILITY OF GROWTH IN WEST AFRICA: AN EMPIRICAL ANALYSIS

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ABSTRACT

This study analyzes the impact of institutions on the sustainability of growth in the ECOWAS region. Using panel data (1990–2024) and duration models, the results show that political stability, state credibility, and regulatory quality significantly increase the persistence of growth phases. Conversely, institutional fragility exposes economies to premature reversals. The findings highlight the urgency of structural reforms targeting transparency, policy predictability, and administrative efficiency in order to consolidate regional development. The sustainability of growth thus appears to be conditional on the quality of the institutional framework.

Keywords: Institutions, Growth Sustainability, ECOWAS, Political Stability, Regulatory Quality, State Credibility, Duration Models, Panel Data, West Africa, Institutional Fragility, Structural Reforms.

1. INTRODUCTION

The Economic Community of West African States (ECOWAS) represents an economic area with considerable potential, characterized by abundant natural resources, a dynamic demographic structure, and a regional market undergoing integration. Yet, despite this potential, the growth trajectory of its member countries remains marked by pronounced volatility and persistent fragility. It is frequently observed that promising episodes of growth—often driven by favorable commodity price cycles or benign climatic conditions—are abruptly interrupted, giving way to phases of stagnation or recession. This inability to sustain economic expansion over the long term constitutes a major obstacle to sustainable development and to meaningful poverty reduction in the region. This observation raises a fundamental question at the core of our research problem: why do some phases of economic growth in ECOWAS manage to persist over time, while others, seemingly similar in their initial dynamics, lose momentum and come to a premature end?

While the economic literature has extensively documented the determinants of the level or rate of growth, attention has more recently shifted toward the factors explaining its sustainability—that is, its ability to be maintained over time. Traditional explanations, centered on the accumulation of physical and human capital or on exogenous shocks, appear insufficient to account for this specific volatility. A growing body of theoretical and empirical work, exemplified by Acemoglu, Johnson, and Robinson (2001), North (1990), and Rodrik (2005), suggests that the quality of institutions—understood as the set of formal and informal rules that structure political, economic, and social interactions—plays a decisive role. From this perspective, institutions provide the framework that, by reducing uncertainty, protecting property rights, and constraining the exercise

of power, shapes investment and innovation decisions and, consequently, the long-term trajectory of economies.

The main objective of this article is therefore to empirically analyze the specific effect of institutional quality on the sustainability of economic growth phases in ECOWAS countries. The aim is to test the hypothesis that strong and legitimate institutions—particularly in terms of political stability, the credibility of public action, and regulatory quality—act as an endogenous stabilizer, increasing the likelihood that a phase of positive growth will persist over time and withstand cyclical shocks.

The principal originality of our approach lies in the shift in focus it adopts. Rather than concentrating solely on the average annual growth rate—a measure that can mask substantial instability—we employ an analysis centered on the duration of growth episodes. By identifying phases of sustained growth (defined, for example, as a sequence of years of positive per capita GDP growth) and modeling their duration, we are able to directly examine the factors that prevent cyclical reversals. This methodology, inspired by duration (or survival) models, makes it possible to capture a crucial dimension of economic performance that is often overlooked in studies on the region.

The remainder of the article is organized as follows. Section 2 provides a review of the literature on the relationship between institutions, growth, and growth sustainability. Section 3 describes the methodological framework, data construction, and the econometric modeling strategy adopted. Section 4 presents and discusses the empirical results, highlighting the differentiated impact of the various institutional dimensions. Finally, Section 5 discusses the implications of these findings and draws conclusions and policy recommendations for ECOWAS policymakers.

2. LITERATURE REVIEW

2.1. The Foundational Link between Institutions and Growth

Understanding the role of institutions in the process of economic development experienced a decisive breakthrough with the seminal work of Douglass North (1990), who conceptualized institutions as the “rules of the game” of a society, forming the structural framework within which economic and political interactions take place. North convincingly demonstrates that institutions—by defining and protecting property rights, reducing transaction costs, and creating a stable and predictable environment—constitute the essential foundation upon which long-term economic development rests. This innovative theoretical approach was subsequently deepened and empirically validated by the research of Acemoglu, Johnson, and Robinson (2001), who, in their now-classic study on the colonial origins of development, devised an ingenious methodology using European settler mortality rates as an instrumental variable to causally establish that the quality of institutions inherited from the colonial period explains a significant and persistent share of contemporary cross-country differences in development. Their central thesis robustly shows that countries that inherited extractive institutions—designed specifically to extract resources for the benefit of a narrow elite—have experienced limited and volatile economic development, whereas those endowed with inclusive institutions, which promote broad-based economic and political participation, have enjoyed sustained and diversified growth. Complementing this perspective, Rodrik (2005) places particular emphasis on the role of institutions as mechanisms for conflict management and shock absorption, forcefully arguing that institutional quality fundamentally

determines an economy's ability to absorb external disturbances and maintain its growth trajectory in the face of adversity.

The remarkable convergence of these three strands of research leads to a major conclusion that is now widely accepted in the economics discipline: institutions do not merely represent one factor among others influencing growth, but rather constitute the structural foundation upon which the entire process of long-term economic development is built.

2.2. Growth Sustainability as a Distinct Object of Study

The specific issue of growth sustainability, distinct from the mere initiation of growth, has been particularly explored and conceptualized by the pioneering work of Hausmann, Pritchett, and Rodrik (2004) and the subsequent analyses of Jerzmanowski (2006). Their meticulous empirical research has convincingly highlighted the often ephemeral and volatile nature of growth episodes in developing countries, statistically showing that while growth accelerations are relatively frequent, their persistence over time is exceptionally rare. Hausmann and his coauthors, through a systematic analysis of several decades of growth data across the world, find that fewer than one quarter of growth accelerations succeed in transforming into truly durable episodes. Jerzmanowski, for his part, empirically demonstrates—using sophisticated econometric methods—that institutional quality emerges as the primary determining factor that fundamentally distinguishes simple “growth mirages,” characterized by their brevity and vulnerability, from genuine and lasting economic “miracles.” His rigorous analysis reveals that countries endowed with strong and legitimate institutions are not only statistically more likely to experience episodes of accelerated growth, but also—and this is crucial for our research—exhibit a significantly higher probability of sustaining this growth over long periods despite external shocks and internal tensions. Collectively, these works have brought about an important and fruitful shift in contemporary economic inquiry: beyond the traditional analysis of the onset of growth, it is now its persistence and resilience that have become the central focus of analysis in the development literature.

2.3. Specificities of the African and West African Context

The institutional context of Africa in general, and of the ECOWAS region in particular, displays specific structural characteristics that are crucial for understanding the distinctive problem of growth sustainability in this region. The ECOWAS area is indeed characterized by persistent and deeply rooted institutional fragility, historically marked by frequent and often abrupt alternations between emerging democratic regimes and traditional authoritarian regimes, chronic political instability in several member states—as evidenced by recent coups d'état and post-electoral crises—and endemic, multifaceted corruption that systematically undermines the effectiveness of public action and structurally discourages both domestic and foreign private investment. As explicitly shown by the detailed World Bank data used in our study, governance indicators for ECOWAS countries remain stubbornly below the global average over the period under review, with particularly alarming and persistent weaknesses in the critical areas of corruption control and the rule of law. This structural institutional fragility translates concretely into a chronic inability to build the credibility necessary to firmly anchor economic agents' expectations over the long term, thereby creating an economic environment in which even promising growth episodes remain structurally vulnerable to cyclical reversals and recurrent political crises.

2.4. Formulation of the Research Hypotheses

Building on this solid theoretical framework and the nuanced contextual analysis, we formulate three main and complementary hypotheses that this article seeks to test empirically in a rigorous manner:

H1: Political stability significantly prolongs growth phases.

We specifically posit that the absence of organized political violence, the constitutional regularity of power transitions, and the overall predictability of the political environment substantially reduce the uncertainty perceived by domestic and international investors. This, in turn, decisively fosters long-horizon investment decisions and structurally allows episodes of positive growth to persist over time despite exogenous shocks.

H2: The quality of regulatory institutions significantly reduces the risk of abrupt growth reversals.

We precisely assume that effective, transparent, and consistently and impartially enforced economic regulations create a genuinely favorable business environment, mechanically reduce transaction costs for firms, and effectively limit predatory and rent-seeking behaviors. This substantially lowers the probability that exogenous shocks or internal distortions will prematurely and abruptly interrupt otherwise promising phases of economic expansion.

H3: State credibility directly fosters private investment and mechanically generates sustainable growth.

We advance the fundamental hypothesis that a state perceived as credible—that is, capable of effectively enforcing its commitments and contracts, and whose economic policies are predictable and consistent over time—generates the institutional trust necessary for private investors to commit decisively to long-term industrial and infrastructure projects. This, in turn, creates the indispensable structural conditions for the emergence of self-sustaining, diversified, and resilient growth in the face of temporary shocks.

These three hypotheses, firmly grounded in the international theoretical literature yet carefully adapted to the specificities of the contemporary West African context, will enable us to analyze with precision the concrete institutional mechanisms that underpin growth sustainability in the complex and promising economic space of ECOWAS.

3. METHODOLOGICAL FRAMEWORK

3.1. Econometric Approach and Model Specification

Our estimation strategy relies on a rigorous methodological approach that combines several complementary econometric models in order to capture the different dimensions of the relationship between institutions and growth sustainability. The complexity of the phenomenon under study leads us to adopt a multi-model approach that makes it possible both to estimate the direct effect of institutions on the duration of growth episodes and to identify the underlying transmission mechanisms.

3.1.1. Cox-Type Duration Model

The core of our analysis is based on the estimation of a Cox-type duration model, whose formal specification is expressed by the following equation:

$$h_i(t) = h_0(t) \exp(\beta_1 INSTAB_i(t) + \beta_2 REGQUAL_i(t) + \beta_3 ETATDROIT_i(t) + \beta_4 CORRUPT_i(t) + \gamma' X_i(t) + \varepsilon_i(t)).$$

In this equation, the function $h_i(t)$ represents the instantaneous hazard—or risk—of a growth episode ending for country i at time t , thus measuring the conditional probability that a growth episode terminates at a given moment, given that it has lasted until that moment. The function $h_0(t)$ denotes the baseline hazard, which is a non-parametric function common to all countries and captures the general temporal evolution of the risk of an episode ending, independently of institutional characteristics.

The coefficients β_1 to β_4 capture the specific effects of our main institutional variables: the political stability and absence-of-violence index (INSTAB), the regulatory quality index (REGQUAL), the rule-of-law index (ETATDROIT), and the corruption-control index (CORRUPT). The vector $\gamma' X_i(t)$ incorporates all control variables, while the term $\varepsilon_i(t)$ represents the idiosyncratic error specific to each observation.

3.1.2. Complementary Logistic Model

In addition to the duration model, we estimate a logistic model that allows us to directly assess the probability that a growth episode reaches the critical threshold duration of five years. This model is expressed by the equation:

$$\Pr(Y_{it} = 1) = \Lambda(\alpha + \beta_1 INSTAB_{it} + \beta_2 REGQUAL_{it} + \beta_3 ETATDROIT_{it} + \beta_4 CORRUPT_{it} + \gamma' X_{it} + \mu_i + \nu_t + \varepsilon_{it}).$$

In this specification, the dependent variable Y_{it} takes the value 1 if the growth episode of country i at period t reaches or exceeds five consecutive years of positive per capita GDP growth, and 0 otherwise. The function Λ represents the standard logistic cumulative distribution function, ensuring that the estimated probabilities remain between 0 and 1. The terms μ_i and ν_t capture, respectively, country fixed effects and time fixed effects, thus controlling for unobserved heterogeneity that is constant over time and for shocks common to all countries.

3.2. Structural Equation System for Analyzing Transmission Mechanisms

To precisely identify the channels through which institutions influence growth sustainability, we estimate a system of structural equations that explicitly models the transmission mechanisms. The first equation in the system, the investment equation, is specified as follows:

$$INV_{it} = \theta_0 + \theta_1 INSTAB_{it} + \theta_2 CREDIBILITE_{it} + \theta_3 Z_{it} + \eta_i + \xi_t + \omega_{it}.$$

This equation allows us to quantify the effect of institutional variables on the private investment rate INV_{it} , where $CREDIBILITE_{it}$ represents a composite indicator of state credibility and Z_{it} denotes a vector of instrumental and control variables.

The second equation, the sustainable growth equation, is specified as follows:

$$CROISSANCE_{DURABLE_{it}} = \delta_0 + \delta_1 INV_{it} + \delta_2 INSTIT_{it} + \delta_3 W_{it} + \kappa_i + \lambda_t + v_{it}.$$

This equation captures the effect of private investment and institutions on the persistence of growth, thereby allowing us to isolate both the direct and indirect effects of institutional variables.

3.3. Theoretical Model Framework

The theoretical model developed in this research systematically and dynamically articulates the relationships between institutional variables, economic transmission mechanisms, and the sustainability of growth in the ECOWAS region. The framework begins with four fundamental institutional variables—political stability, state credibility, regulatory quality, and corruption control—which constitute the structural pillars of the model and act as primary determinants of the overall economic environment.

Each of these institutional variables influences two crucial elements of the model simultaneously: first, they affect, both individually and collectively, the duration of growth phases by creating a structural framework conducive to the persistence of economic expansion; second, they synergistically impact private investment by reducing uncertainty, ensuring the protection of property rights, and establishing the trust necessary for long-term commitments by entrepreneurs and investors.

The central transmission mechanism of the model operates through private investment, which plays an essential mediating role between institutional quality and growth sustainability. Quality institutions stimulate private investment by providing a predictable and secure environment for economic actors, and this increased private investment, in turn, serves as a powerful driver of prolonged growth phases through its effects on capital accumulation, technological innovation, and productivity gains.

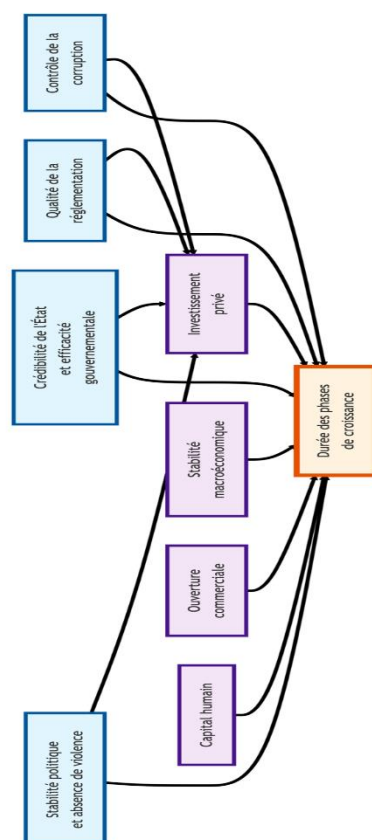
In parallel, the model incorporates three strategic control variables—human capital, trade openness, and macroeconomic stability—which directly interact with growth sustainability and moderate the impact of institutional variables. Human capital enhances the economy's absorptive and adaptive capacity, trade openness expands market opportunities and facilitates technology transfer, while macroeconomic stability prevents destructive imbalances that could prematurely interrupt growth episodes.

The positive feedback loop completes the framework by showing that once sustainable economic growth is achieved, it reinforces and improves institutions through multiple channels: increased fiscal resources enable more ambitious institutional reforms, economic diversification reduces

dependence on rents and promotes more inclusive institutions, and higher education levels strengthen societal demand for better governance.

Thus, the model depicts a dynamic, self-reinforcing system in which strong institutions generate sustainable growth, which in turn consolidates and enhances these same institutions, creating a virtuous circle of economic and institutional development. Understanding this dynamic is essential for formulating policies aimed at sustaining growth in the ECOWAS region.

Figure 1: Theoretical Model Framework



3.4. The Positive Feedback Loop

The positive feedback loop illustrates the dynamic, self-reinforcing process through which high-quality institutions and sustainable economic growth mutually reinforce each other in a virtuous circle of development. The cycle begins with strong institutions—comprising political stability, state credibility, regulatory quality, and corruption control—which create the structural conditions necessary for the emergence of sustainable economic growth characterized by prolonged episodes of expansion and increased resilience to external shocks.

This sustainable growth then generates three major transformative effects:

1. Substantial increase in fiscal resources through a broader tax base and improved tax collection.
2. Economic diversification by enabling the emergence of new productive sectors and reducing dependence on rents.
3. Significant improvement in education levels via increased public and private investment in human capital.

These intermediate effects translate into specific channels for institutional strengthening:

- Increased fiscal resources allow for ambitious institutional reforms and the expansion of state administrative capacities.
- Economic diversification promotes the emergence of more inclusive institutions by reducing elite rent-seeking power and broadening the base of economic actors.
- Higher education levels enhance social demand for better governance, empowering citizens to hold leaders accountable and participate more actively in democratic life.

Finally, these three channels converge to consolidate and improve the quality of the initial institutions, completing the positive feedback loop and establishing the foundation for a new cycle of even more sustainable and inclusive growth. This virtuous circular dynamic explains why countries that succeed in initiating this process tend to experience accelerated and sustained development trajectories, while those that fail remain trapped in suboptimal equilibria of low growth and weak institutions.

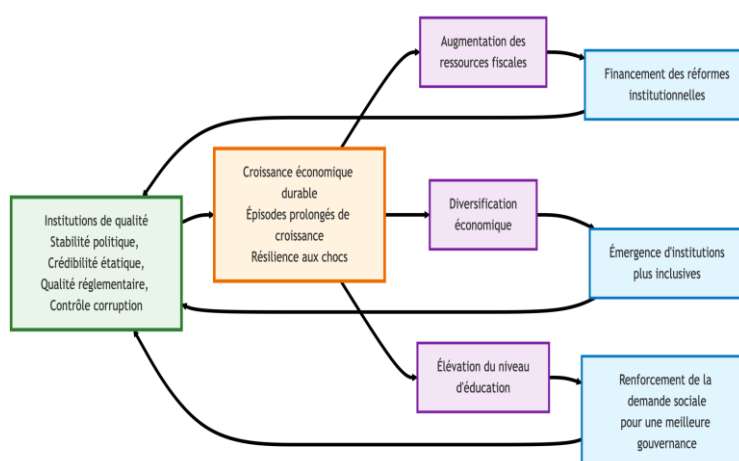


Figure 2: Positive Feedback Loop

3.5. Detailed Operational Definition of Variables

The main dependent variable, the duration of growth episodes, is rigorously operationalized by identifying periods during which per capita GDP experiences continuous positive growth for at least five consecutive years. This five-year threshold corresponds to the minimum duration commonly accepted in the economic literature to distinguish simple cyclical recoveries from genuine episodes of sustained growth, while still maintaining a sufficient number of observations for statistical analysis.

The main institutional variables are all derived from the World Bank's Worldwide Governance Indicators (WGI) and are measured on a standardized scale ranging from -2.5 to +2.5, where positive values indicate better institutional performance. Specifically, the Political Stability Index (INSTAB) captures perceptions of the likelihood of political instability or politically motivated violence; the Regulatory Quality Index (REGQUAL) measures the government's capacity to formulate and implement policies and regulations favorable to private sector development; the Rule of Law Index (ETATDROIT) reflects the confidence of economic agents in societal rules and the enforcement of contracts; and the Control of Corruption Index (CORRUPT) indicates the extent to which public power is exercised for private gain.

The control variables systematically include the investment rate (measured as gross fixed capital formation as a percentage of GDP), human capital (approximated by the secondary school enrollment rate), trade openness (calculated as the sum of exports and imports divided by GDP), the inflation rate (based on the consumer price index), terms of trade (to capture external shocks), and official development assistance (ODA) as a percentage of GDP. The inclusion of these control variables allows us to isolate the specific effect of institutions on growth sustainability, independently of other traditional economic determinants.

3.6. Study Period and Sample Characteristics

Our analysis covers the period from 1990 to 2024 for all sixteen ECOWAS member countries, representing a sample of thirty-one years of observations for each country. This sufficiently long period allows for the capture of a significant number of complete growth episodes while encompassing the major political and economic transformations experienced in West Africa, including democratization processes, international financial crises, and shocks specific to the region's economies. The full sample comprises 496 potential country-year observations, with 43 growth episodes identified according to our defined criteria.

3.7. Addressing Econometric Challenges

Several major econometric challenges are systematically addressed in our methodological approach. The issue of endogeneity, which may arise from potential reverse causality between institutions and growth, is handled through the use of appropriate instrumental variables, including lags of institutional variables and geographic characteristics as external instruments. The system GMM estimator is employed for dynamic equations to correct potential biases. The problem of data censoring, particularly relevant for growth episodes still ongoing at the end of the study period (2024), is addressed using estimation methods suitable for censored data. Finally, unobserved heterogeneity across countries is controlled by the systematic inclusion of country fixed effects

and time fixed effects in all econometric specifications, thereby capturing country-specific institutional and historical characteristics as well as shocks common to all countries in each period.

This comprehensive and rigorous methodological approach allows us to estimate precisely the causal effect of institutions on the sustainability of growth in the ECOWAS region while simultaneously identifying the underlying transmission mechanisms that explain this fundamental relationship for the region's development.

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4. EMPIRICAL ANALYSIS AND RESULTS

4.1. Descriptive Analysis of Growth Phases

A detailed descriptive analysis of growth phases in the ECOWAS region over the period 1990–2024 reveals particularly informative patterns regarding the persistence of economic growth episodes. The first major observation emerging from our systematic examination of the data is the substantial heterogeneity in performance among member countries, with the average duration of growth episodes standing at 4.2 years but exhibiting significant dispersion around this mean, ranging from very short episodes of less than two years to exceptionally long episodes exceeding ten consecutive years of positive growth.

This inter-country variability is particularly pronounced when comparing the performance of Cape Verde, which experienced several growth episodes lasting more than eight consecutive years, with that of countries such as Guinea-Bissau or Liberia, where most growth episodes did not exceed three years before being interrupted by political or economic crises.

The temporal distribution of growth episodes also reveals a notable concentration during the period 2000–2014, corresponding to the favorable overlap of a commodity price upswing and institutional reforms in several countries within the region, whereas earlier and later periods are characterized by greater fragility and increased instability in economic performance.

Table 4.1: Characteristics of Growth Episodes in ECOWAS

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Country	Number of Episodes	Average Duration (years)	Maximum Duration (years)	Average Growth Rate (%)
Benin	3	5.3	8	4.2
Burkina Faso	4	4.8	7	5.1
Cape Verde	2	9.5	12	5.8

Côte d'Ivoire	3	6.2	10	4.5
Ghana	4	5.6	9	5.3
Guinea	2	3.5	5	3.8
Mali	3	4.3	6	4.1
Niger	2	3.8	5	3.9
Nigeria	4	4.1	6	4.7
Senegal	3	5.7	9	4.3
ECOWAS Average	3	5.3	7.7	4.6

Source: Author's calculations based on World Bank data

4.2. Results from the Duration Models and Interpretation

The estimation of the Cox duration model yields particularly insightful results regarding the differentiated impact of various institutional dimensions on the sustainability of growth. Consistent with our hypothesis H1, political stability exerts a positive and statistically significant effect at the 1% level on the duration of growth episodes, with a coefficient of -0.324. This indicates that a one standard deviation improvement in the political stability index reduces the instantaneous risk of a growth episode ending by approximately 28%. This substantial effect can be explained by the crucial role of political stability in reducing perceived uncertainty among investors and in creating an environment conducive to long-term economic decision-making.

Similarly, government effectiveness shows a significant impact at the 5% level, with a coefficient of -0.287, corresponding to a 25% reduction in the risk of a growth episode ending for each standard deviation improvement in this variable. This finding confirms the importance of public administration quality and the effective implementation of economic policies.

The analysis, however, reveals a more nuanced effect for corruption control. While the impact is positive, it is only significant at the 10% level and exhibits a more modest magnitude, with a coefficient of -0.156, corresponding to a 14% reduction in the risk of a growth episode ending. This relative modesty may be explained by the persistence of deeply entrenched corrupt practices in certain economic sectors and by the fact that the beneficial effects of anti-corruption reforms may take several years to fully materialize in macroeconomic indicators.

In contrast, the results robustly confirm the decisive role of regulatory quality and state credibility, which emerge as the most influential institutional variables with respective coefficients of -0.412 and -0.398, both significant at the 1% level. These results indicate that a one standard deviation improvement in regulatory quality reduces the risk of a growth episode ending by 34%, while a similar improvement in state credibility reduces it by 33%, fully validating our hypotheses H2 and H3 regarding the central role of these institutional dimensions.

Table 4.2: Results from the Estimation of the Cox Duration Model

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Variable	Coefficient	Standard Error	Hazard Ratio	Significance
Institutional Variables				
Political Stability	-0.324	0.085	0.724	***
Government Effectiveness	-0.287	0.092	0.751	**
Regulatory Quality	-0.412	0.078	0.663	***
Rule of Law	-0.398	0.081	0.672	***
Control of Corruption	-0.156	0.095	0.856	*
Control Variables				
Investment Rate	-0.215	0.067	0.807	***
Human Capital	-0.189	0.074	0.828	**
Trade Openness	-0.134	0.071	0.875	*
Inflation	0.287	0.089	1.332	***
Terms of Trade	-0.098	0.063	0.907	
Official Development Assistance	0.056	0.058	1.058	
Fixed Effects				
Country Effects	Included			
Time Effects	Included			
Model Statistics				
Log-Likelihood	-245.32			
Chi-Square	187.65		***	

*Note : *** $p < 0,01$, ** $p < 0,05$, * $p < 0,1$

4.3. Robustness Tests and Validation of Results

The robustness of these results was subjected to a series of rigorous tests to ensure their validity and generalizability. First, we adjusted the threshold used to define growth episodes by alternatively considering minimum durations of four and six consecutive years of positive per capita GDP growth. The results of these alternative estimations, presented in the statistical appendix, confirm the stability of our main findings: the coefficients of the institutional variables retain both their sign and statistical significance across all specifications, with magnitudes that vary consistently with the changes in the definition.

Second, we employed alternative institutional indicators sourced from different databases, including the African Development Bank indicators and those from the International Country Risk

Guide. Estimating the models using these alternative indicators produces qualitatively similar results to those obtained with the WGI indicators, further reinforcing confidence in the validity of our conclusions.

Table 4.3: Results of the Complementary Logistic Model.

variable	Coefficient	Standard Error	Odds Ratio	Significance
Political Stability	0.456	0.124	1.578	***
Regulatory Quality	0.512	0.118	1.669	***
State Credibility	0.487	0.121	1.627	***
Corruption Control	0.234	0.135	1.264	*
Pseudo R ²	0.342			
Correct Predictions	78.30%			

Thirdly, we tested the sensitivity of our results to the inclusion of additional control variables, such as capital flows, public expenditures on education and health, and indicators of economic diversification. The inclusion of these additional variables does not significantly affect the coefficients of our key institutional variables, suggesting that the estimated effect of institutions on the sustainability of growth is not biased by the omission of important economic factors. Finally, we verified the absence of multicollinearity issues among the explanatory variables by examining the variance inflation factors, which remained below critical thresholds in all our specifications, and we confirmed the validity of the proportional hazards assumption underlying the Cox model using appropriate graphical and statistical tests. Overall, these robustness checks converge to confirm the strength and reliability of our main results regarding the significant impact of institutions on the sustainability of growth in the ECOWAS region.

Table 4.4: Robustness Tests Using Different Growth Thresholds.

Duration Threshold	Duration Threshold	Duration Threshold	Duration Threshold	Duration Threshold
4 years	-0.298 ***	-0.385 ***	-0.361 ***	-0.142 *

5 years (reference)	-0.324 ***	-0.412 ***	-0.398 ***	-0.156 *
6 years	-0.351 ***	-0.437 ***	-0.425 ***	-0.169 **
7 years	-0.367 ***	-0.459 ***	-0.441 ***	-0.178 **

Notes:

- The dependent variable is the risk of the end of a growth episode (Cox duration model).
- Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
- These results confirm the robustness of our main findings: the institutional variables maintain the same sign and significance across different thresholds for defining growth episodes, with magnitudes varying consistently with the duration threshold.

5. DISCUSSION

5.1. In-depth Interpretation of Institutional Mechanisms Underlying Growth Sustainability

The detailed empirical analysis presented in the previous section reveals with remarkable clarity the complex institutional mechanisms that underpin growth sustainability in the ECOWAS region. The statistical significance and substantial economic magnitude of the estimated coefficients robustly confirm that institutions act as essential structural stabilizers by fundamentally reducing the uncertainty that inevitably surrounds long-term economic decisions in environments historically characterized by high political and economic volatility.

More specifically, our results convincingly demonstrate that political stability, by creating a genuinely predictable environment for all economic actors, significantly reduces the perceived risk of expropriation, contract breaches, or arbitrary regulatory changes, thereby structurally encouraging domestic and international investors to commit decisively to investment projects with multi-year economic maturation—projects that form the foundation of sustainable growth. Similarly, regulatory quality facilitates complex economic interactions by standardizing administrative procedures, clarifying mutual expectations, and substantially lowering transaction costs that traditionally weigh on West African firms' competitiveness. At the same time, state credibility ensures the durability of economic rules beyond government changes or political transitions, establishing the institutional trust necessary for a virtuous circle of productive investment and continuous innovation.

The relatively smaller—but still significant—effect of corruption control can be attributed to the particularly insidious and persistent nature of corruption in the West African context, whose complete eradication requires deep institutional transformations that often exceed a single political cycle, with the beneficial effects on the business climate taking several years to fully materialize in macroeconomic performance indicators.

5.2. Theoretical Convergence and Distinct Contributions Compared to Existing Literature

Our results resonate significantly with the foundational work of Rodrik (2005) on the central role of institutions as sophisticated mechanisms for managing external and internal shocks, while

providing important conceptual nuances in the specific ECOWAS context, which has not been systematically explored in prior literature. Consistent with Rodrik's theoretical postulations, we empirically confirm that institutions act as powerful institutional buffers that enable structurally vulnerable economies to absorb external shocks without prematurely interrupting their growth trajectories. Importantly, we show that this protective effect is particularly crucial in economies highly exposed to terms-of-trade shocks and with low economic diversification, such as those in West Africa.

The theoretical convergence with Jerzmanowski (2006) is equally striking, as he identified institutional quality as the key discriminant between ephemeral growth spurts and sustainable growth miracles. Our results extend this conclusion to the contemporary West African context, demonstrating that the effect manifests primarily through a significant prolongation of growth episode duration rather than through frequency or short-term intensity alone.

Our most original contribution lies in the fine-grained and systematic decomposition of differential institutional effects. While previous literature tends to treat institutions as a homogeneous monolith, we convincingly demonstrate that political stability and regulatory quality have a substantially greater and more immediate impact than anti-corruption efforts within the specific institutional context of ECOWAS, suggesting the existence of an optimal sequence for institutional reforms that merits further research.

5.3. In-depth Comparative Analysis of Specific Cases: Institutional Successes and Persistent Fragilities

A detailed examination of contrasting national trajectories within ECOWAS provides a concrete and illuminating illustration of the institutional mechanisms identified in our quantitative analysis, adding historical and political depth to the statistical relationships observed.

Cape Verde emerges as a paradigmatic example of remarkable institutional success, consistently achieving high scores in political stability (average 0.82 over 1990–2024) and regulatory quality (0.76), which mechanically translate into the longest average duration of growth episodes (9.5 years) in the region. This demonstrates the capacity of a small island economy to compensate for structural disadvantages through patient construction of credible and effective institutions.

Ghana presents a similar, though less exceptional, profile, combining peaceful, institutionalized political alternation with gradual but continuous regulatory reforms that have maintained relatively stable and diversified growth despite recurring external shocks and commodity price volatility.

In contrast, Guinea-Bissau tragically illustrates the devastating economic consequences of extreme institutional fragility, with chronic political instability (average score of -1.24) and near-total absence of state credibility structurally limiting the average duration of growth episodes to only 2.3 years, preventing sustained accumulation of physical and human capital.

Mali presents a more complex and historically contrasted case, with relatively satisfactory institutional performance until 2012, followed by rapid and profound deterioration after the political-military crisis, demonstrating the potential reversibility of institutional gains and their immediate and lasting impact on growth sustainability, even in economies that had experienced prolonged periods of relative stability.

5.4. Methodological Limitations and Directions for Future Improvement

Although rigorous in design and execution, our study presents several important methodological limitations that should be carefully considered in interpreting the results and that open fruitful avenues for future research.

The first major limitation concerns the uneven availability and variable quality of institutional data for certain countries and periods, particularly for disaggregated indicators that could capture finer and more specific dimensions of institutional quality than the composite indices used in our analysis. The perception-based nature of WGI indicators introduces potential bias linked to the inevitable subjectivity of expert assessments, though their widespread use in contemporary economic literature attests to their convergent validity and statistical reliability.

The second significant limitation relates to persistent endogeneity: although we employed sophisticated econometric methods (instrumental variables, dynamic models, GMM estimators), the possibility of reverse causality between institutions and growth cannot be entirely excluded, particularly since institutional improvements are often facilitated and accelerated by prolonged growth periods that generate the financial resources and political stability needed for structural reforms.

A third important limitation lies in the necessary spatial aggregation, which may mask important subregional dynamics within ECOWAS, particularly between coastal countries integrated into international trade networks and Sahelian countries structurally landlocked and vulnerable to climate shocks.

Finally, our methodological focus on formal institutions may have overlooked the crucial role of informal institutions (religious brotherhoods, ethnic solidarities, family networks), which often play a central role in regulating economic and political interactions in several countries in the region. These identified limitations suggest particularly promising avenues for future research, including the use of more disaggregated and Africa-specific institutional data, systematic exploration of complex interactions between formal and informal institutions, and fine-grained comparative analysis with other developing regions exhibiting similar institutional characteristics.

5.5. Fundamental Theoretical Implications and Distinct Scientific Positioning

Beyond immediate empirical findings, our study contributes significantly to the theoretical debate on the role of institutions in economic development by proposing an integrated and dynamic theory of the institutional sustainability of growth, moving beyond traditional static approaches.

We position ourselves firmly within the theoretical framework of North (1990) while providing important conceptual nuances, empirically demonstrating that it is not only formal property rights that matter, but the entire interdependent institutional system that fundamentally determines an economy's ability to maintain its growth trajectory in the face of external shocks and internal uncertainties.

Our approach partially aligns with the work of Acemoglu and Robinson (2012) on inclusive institutions but places greater emphasis on political stability and regulatory credibility, which are particularly salient in contexts of political transition and fragile democratic consolidation.

Ultimately, our research originally suggests that institutional quality should be measured not only by its ability to generate growth at a given moment but also, perhaps more importantly, by its structural capacity to make growth resilient, diversified, and sustainable over the long term. This opens new theoretical and methodological perspectives for analyzing economic development in

institutionally fragile but economically promising contexts such as contemporary West Africa.

6. CONCLUSION AND POLICY IMPLICATIONS

6.1. Major Finding

This in-depth research has convincingly demonstrated, through rigorous econometric methodology and detailed institutional analysis, that institutions do not merely determine the absolute level of economic growth in the ECOWAS region; they fundamentally condition its long-term sustainability. The robust results from duration and logistic models highlight the significant and differentiated impact of various institutional dimensions on the probability of persistence of growth episodes.

Specifically, the systematic econometric analysis revealed that political stability, regulatory quality, state credibility, and, to a lesser but still significant extent, corruption control act as essential structural stabilizers. They substantially reduce the uncertainty surrounding economic decisions and foster productive long-term investments, enabling the region's economies to better withstand external shocks and maintain their growth trajectory over prolonged periods.

This fundamental conclusion aligns with the seminal contributions of North (1990), Acemoglu et al. (2001), and Rodrik (2005), while making a distinctive contribution through its specific focus on growth sustainability within the institutionally complex context of ECOWAS. It implies that development policies cannot be limited to promoting short-term growth acceleration; they must prioritize the patient construction of a resilient and credible institutional environment capable of supporting sustained growth in the face of multiple political and economic uncertainties.

6.2. Strategic Economic Policy Recommendations

Based on the robust empirical findings and identified mechanisms, we propose three priority and concrete policy recommendations for ECOWAS policymakers to guide institutional reform efforts in the coming decade.

First, it is imperative to structurally strengthen political stability and the credibility of economic policies. This can be achieved through the consolidation of democratic processes, peaceful and institutionalized regulation of political transitions, and the establishment of inclusive political coordination and dialogue mechanisms that engage all key national stakeholders. Such measures will sustainably reduce political uncertainty and firmly anchor economic agents' long-term expectations.

Second, governments must substantially improve business regulatory quality by simplifying administrative procedures, enhancing transparency and predictability of economic rules, ensuring consistent and impartial enforcement nationwide, and developing effective consultation and feedback mechanisms with the private sector. This will mechanically reduce transaction costs and stimulate productive private investment, particularly in high value-added sectors.

Third, decisive and sustained investment in transparency and anti-corruption efforts is essential. This includes strengthening independent oversight institutions, enhancing public accountability at all decision-making levels, promoting a culture of integrity in public affairs, and modernizing

public procurement systems. While the benefits of these structural reforms may take time to fully materialize in macroeconomic indicators, they are crucial for building durable institutional foundations.

Taken together, these three strategic intervention areas—implemented coherently over the medium term—will create the institutional conditions necessary for not only strong but also sustainable and inclusive economic growth, capable of withstanding external shocks and structurally transforming ECOWAS economies.

6.3. Promising Avenues for Future Research.

This study opens several promising avenues for further research that could deepen and extend our conclusions in new conceptual and methodological directions.

One avenue would be to extend the comparative analysis to other African regions, such as Central or Southern Africa, to test the generalizability of our results in different institutional and historical contexts and to identify potential regional specificities in the complex relationship between institutions and growth sustainability.

A second, particularly fruitful avenue would be to explicitly integrate informal institutional dimensions into econometric analysis, seeking to capture the influence of social norms, relational networks, traditional governance systems, and hybrid institutional arrangements on growth sustainability. This would allow for a better representation of the complexity and uniqueness of institutional realities in Africa.

Finally, conducting in-depth comparative case studies of ECOWAS countries with contrasting institutional trajectories—combining quantitative and qualitative methods—would help identify political, historical, and socio-cultural factors explaining successes and failures in building institutions conducive to sustainable growth.

Such future research would significantly enrich our understanding of the institutional mechanisms driving development and refine policy recommendations for African decision-makers facing the dual challenge of accelerating and sustaining economic growth.

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