

Paradoxical Pathways: How Foreign Aid, Fiscal Policy, and Governance Shape
Inclusive Growth in East African Economies

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ABSTRACT

This paper examines the intricate interactions among foreign aid, fiscal policy, governance quality, and inclusive growth in East African countries between 2008 and 2023. Using a panel of 11 countries (Burundi, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe) as a mixed integration order and a cross-sectional dependence (also known as the Pooled Mean Group) estimator, we address the methodological problems associated with mixed integration orders and cross-sectional dependence in estimating the short-run and long-run relationships between equilibrium variables. An initial screening of diagnostic tests shows that there is a clear dichotomy as macroeconomic variables are highly cross-sectionally interdependent, whereas the governing indicators develop comparatively autonomously across national lines, implying the existence of country-specific institutional pathways in common macroeconomic shocks. The empirical findings have affirmations and contradictions with the existing literature on development. Political stability proves to have the largest positive impact on inclusive growth in the long-run ($\beta = 0.1057$, $p = 0.000$), which is consistent with the views of institutional economics regarding the fundamental significance of foreseeable political settings. Nevertheless, government effectiveness demonstrates a considerable negative relationship ($\beta = -0.1979$, $p = 0.000$), which disrupts the usual governing orthodoxy and indicates a possibility of measurement problems or situational circumstances in which governance technical efficiency may not result in inclusive performance. Foreign aid is negatively correlated with inclusive growth, with a significant negative long-run relationship ($\beta = -0.0184$, $p = 0.000$), supporting critical views of aid dependency and Dutch disease impacts, and productive government spending has moderate positive results ($\beta = 0.0131$, $p = 0.000$). The cointegration is confirmed by the error correction mechanism, and the adjustment to equilibrium is quite fast, with an estimated 111 percent of the disequilibrium being corrected within a single period.

Keywords: *Inclusive growth, foreign aid, taxes, governance quality, Pooled Mean Group, East Africa, cross-sectional dependence, cointegration*

INTRODUCTION

The pursuit of inclusive growth, which is economic expansion that is both broad-based in terms of sectors and geography, productive in terms of creating employment, and decreasing poverty and inequality, has become one of the main issues of developing economies, especially of sub-Saharan Africa (Berg et al., 2018). East Africa includes Kenya, Tanzania, Uganda, Rwanda, and Ethiopia, among other countries, and over the last twenty years, the region has seen a remarkable development in terms of growth in the region's GDP at an average of over 5 percent per annum (World Bank, 2023). Nevertheless, this overall increase has not always been reflected in fair betterment in living conditions,

poverty alleviation, or opportunity equality, which leads to important questions about how the quality and inclusivity of the development path of the region (Bicaba et al., 2017; Shimeles et al., 2018). The overall disparities between growth and inclusion have led scholars and policymakers to redefine what defines inclusive development, with specific attention given to three inseparable pillars, including foreign aid, fiscal policy, and quality governance.

Foreign aid has traditionally been viewed as an important tool to trigger growth in low-income nations, and East Africa has been getting large amounts of Official Development Assistance (ODA). A large part of external funding was attracted to the region in 2020-2022, about 35 billion dollars of which are aid (OECD, 2023). However, the usefulness of this aid in achieving inclusive growth remains a hotly debated topic in scholarship. According to its proponents, aid bridges important investment gaps, finances public goods and institutional development (Bourguignon & Sundberg, 2007; Kotsadam et al., 2018). Nevertheless, there is also an increasing literature on how aid might actually lead to dependency and misaligned incentives, as well as the mechanisms of accountability in countries that might be compromised by aid (Djankov et al., 2008; Dreher et al., 2019). Recent empirical research on East Africa, in particular, displays some contradictory evidence: Mascagni and Timmis (2021) report that aid directed at governance reforms in Rwanda produced positive institutional results, whereas Kinyondo and Pelizzo (2022) report the decreased policy coherence and implementation capacity as caused by aid fragmentation in Tanzania. The aid-inclusive growth relationship, therefore, seems to be context-specific and case-specific in its ways of existence across countries, sectors, and channels of provision.

The second important dimension is the fiscal policy that involves taxation to generate revenue and expenditure allocation through government spending. According to theoretical literature, the reduction in inequality and the encouragement of inclusion are possible through progressive taxation and a well-planned social expenditure (Ostry et al., 2018). However, East African empirical research indicates massive implementation problems. Behuria (2023) shows how tax incentives and exemptions in Mauritius favor big firms with disregards to the damage to the revenue base upon which inclusive investments in the population can be made. On the same note, the authors Chelwa and Ndlovu (2023) report on the introduction of VAT changes in Zambia (not East African, but with comparable lessons), which put the poor in disproportionate burdens. On the spending aspect, research results show that government spending on education, health, and infrastructure can boost human capital and production opportunities (Molini and Paci, 2015; Balakrishnan et al., 2013). However, Herrera et al. (2018) discovered that the efficiency with which public spending is spent differs drastically among the East African nations, with Rwanda and Ethiopia recording remarkably higher results when compared to Uganda or Tanzania, based on the amount of money spent. How fiscal interventions are composed, what quality they have, and who they are aimed at thus become potentially more significant than their magnitude. Gnanngnon (2023) discusses the tax transition reforms' impact on the real exchange rate in developing countries, and the author notes the openness to trade as an important channel of influence on the value of currency.

The third pillar is the quality of governance, where political stability, effectiveness of the government, corruption control, and the rule of law are given special focus. Acemoglu and Robinson (2013) led the institutional turn in development economics, which states that the main part of sustainable and fair economic development is inclusive institutions. Recent empirical research in African settings supports this opinion. Dorsch et al. (2021) discovered that a rise in the quality of bureaucracy in Ghana and Rwanda was linked to an increase in the outcome of the delivery of a better public service. Nevertheless, Andrews et al. (2017) warn about too easy generalizations when using global governance indicators, since institutional settings are usually context-specific and some generic best practices are not necessarily the best. Cheeseman et al. (2021) also record the example of competitive authoritarian regimes in Ethiopia and Rwanda that succeeded in developing despite the political constraints, and Golooba-Mutebi (2020) recorded how the individualizing system of governance in Uganda produced pockets of efficiency amidst general institutional inefficiencies. These studies also indicate that the correlation between traditional governance indicators and developmental results may be more complicated and conditional than it was supposed to be before. Andrews et al. (2010) evaluated

aggregate governance measures, indicating that they are not context-driven and theoretically based, and suggest sector-specific, result-oriented measures that are more statistically supported by institutional realities and reform effectiveness.

Although much has been done to explain these individual determinants, there still exist large gaps in the explanation of their interactive effects and relative levels of influence on the growth of inclusiveness. To start with, the research on aid, fiscal policy, or governance tends to study them independently without considering the relationship they have with one another in the actual policy contexts (Bräutigam and Knack, 2004; Moss et al., 2006). Second, empirical research is often based on cross-country regressions that obscure regional differences and dissimilar impacts (Jerven, 2015; Krogstrup and Matar, 2020). Third, the literature is limited in time with a limited number of studies addressing the radical shifts in development finance, paradigms of governance, and global economic circumstances that have marked the post-2015 era of the Sustainable Development Goals (Easterly and Pfütze, 2008; Glennie et al., 2021). Fourth, methodological solutions tend to blend both the short-term and long-run equilibrium relationship such that the temporal aspects of development processes may not be clearly revealed (Pesaran and Smith, 1995; Eberhardt and Presbitero, 2015).

The paper resolves such gaps by providing a systematic empirical study on how inclusive growth in East Africa between 2005 and 2022 is determined by foreign aid, tax revenue, and governance alone or in combination. We use a Pooled Mean Group (PMG) estimator that permits heterogeneous short-run dynamics and homogeneous long-run relationships, a methodological strategy especially well adapted to panels of differing country experience but sharing common constraints in a region (Pesaran et al., 1999; Blackburne and Frank, 2007). The analysis results in some counterintuitive findings that contravene traditional wisdom in development: the positive effect of political stability is found to be the strongest, whereas government effectiveness is found to be negatively related; foreign aid is found to be having significant negative long-run effects contrary to its positive short-term flows, and fiscal policy is found to have asymmetric effects with expenditure being positive and taxation showing short-run distortions; among other results.

These paradoxical findings contribute to several strands of the development literature. To start with, they prolong the aid-effectiveness discussion by showing that a negative long-run aid-inclusive growth relationship can be obtained within the East African environment with the help of particular governance and fiscal transmission processes. External aid does not operate independently, but rather it is the interactions between external aid and domestic institutions and the structures of the public finance, which influence both the distributive and growth outcomes. Second, the findings elaborate on the governance-growth nexus by showing that various aspects of governance have different influences on inclusive development, highlighting the necessity to go beyond aggregate institutional indicators. Third, the research streamlines the literature on fiscal-policy by isolating the dynamic impacts of revenue collection and government spending on different time horizons.

The paper methodologically contributes to development economics by implementing the Pooled Mean Group (PMG) estimator in a mixed orders of integration and cross-sectional dependence setting, thus rendering and permitting both common long-run estimation as well as country-specific short-run estimation. The results indicate that fostering inclusive development in East Africa needs integrated policy strategies that reinforce political stability, reorient governance reforms, restructure the aid relationships towards more domestic ownership, and regulate the fiscal-policy orientation in given institutional realities of circumstances.

The rest of the paper follows in the following structure: Section 2 is a review of the conceptual framework and the literature on the determinants of inclusive growth. Part 3 outlines the methodology and data sources. Section 4 provides the results, discussions, and strength tests. In Section 5, the conclusion and its theoretical and policy implications are presented. In the course of the analysis, we will offer some evidence-based information to policymakers concerned about improving the inclusivity of the East African developmental pathway and also contribute to the academic discussion about the

intricate interaction between foreign resources and domestic policies on one hand and the quality of institutions on the other hand in the formation of developmental outcomes.

LITERATURE REVIEW

Theoretical Foundations of Inclusive Growth

Inclusive growth has been a concept that has now developed into various aspects of development economics; it has transitioned beyond the idea of GDP growth to include the equity, opportunity, and sustainability facets (Anand et al., 2013). Berg and Ostry (2017) have determined that inequality is a primary factor that can decrease the sustainability of growth spells and that inclusiveness of growth is not only morally right, but also fundamental to sustainable economic development. In their African setting, Shimeles et al. (2018) constructed an extended framework to gauge inclusive growth in terms of multidimensional pointers that reflect accessibility to opportunities, poverty eradication, and the mitigation of inequality. Their sub-Saharan Africa analysis identified a lot of variation in inclusiveness despite equal growth rates, and they found policy and institutional conditions to be crucial in the conversion of the aggregate growth into the broad-based growth in living standards.

The recent theoretical developments have focused on the importance of structural transformation in the realization of inclusive growth. According to McMillan et al. (2021), the transfer of labor between low and high productivity sectors, especially between agriculture and manufacturing and modern services, is very important in the provision of productive jobs that lead to increased incomes among the populace. They, however, observe that premature deindustrialization has been witnessed in many African countries, constraining this channel of structural transformation. Rodrik (2018) builds upon this point, implying that services-led growth can also be used to provide alternative avenues to inclusion during the digital era, but with a different distributional policy than the traditional manufacturing-led development.

Foreign Aid Effectiveness: Evolving Debates

Literature on the effectiveness of foreign aid has undergone many stages, starting with initial optimistic models of aid as a fillip to investment, to argumentative models of conditionalities and institutional setting. Recent meta-analyses by Doucouliagos and Paldam (2020) of 688 econometric studies report ambivalent findings generally, with the vast majority of publications having a tendency to positively influence the research. They infer that aid performance depends on policy environments, governance quality, and aid modalities extensively, with project assistance having an overall better performance than budget support.

In East Africa, in particular, research shows that there are complicated trends. Kotsadam et al. (2018) discovered that health aid had a significant impact on infant mortality in Nigeria, but few impacts on governance indicators. Mascagni and Timmis (2021) reported the success of Rwanda in leveraging aid to reinforce domestic revenue mobilization, which formed a vicious circle, as the better the tax capacity, the less the need to rely on aid. On the other hand, Kinyondo and Pelizzo (2022) examined the case of Tanzania, where several, disjointed donors had formed conflicting priorities and implementation challenges. Their study underscored the potential breakdown of policy coherence and implementation capacity because of conflicting demands by their donor darlings.

The modality of aid delivery has become a very important aspect. Glennie et al. (2021) differentiate between the old way of project-based assistance and more recent forms such as budget support and results-based financing and conclude that the new ones are better aligned with the national priorities but cannot be managed without well-developed domestic institutions. Knack et al. (2023) analyzed how non-traditional donors in East Africa, specifically China, have expanded, considering the various conditions and how this might affect governance norms.

Fiscal Policy and Inclusive Growth

The fiscal policy in encouraging inclusive growth works both in revenue and in expenditure. Tax structure is of importance on the revenue side, not only tax levels, as recent literature has shown. Chelwa and Ndlovu (2023) established that consumption tax, similar to the VAT tend to be retrogressive in African economies that have a high informal sector, whereas income and property taxes tend to be more progressive but are associated with implementation issues. Their discussion of tax reforms in Zambia revealed the ways in which political economy limitations tend to limit the optimum tax design.

There has been growing concern about the effectiveness of public expenditure. The article by Balakrishnan et al. (2013) established efficiency frontiers of public spending in African countries and observed high disparity in the results achieved on a dollar spent. They mentioned Rwanda and Ethiopia as comparatively high efficiency in spending in comparison with their regional counterparts, as they have better monitoring systems and clearer results structures. They, however, exercised caution that efficiency actions are not enough to reflect the distribution impacts and that some efficient systems may marginalize some groups.

Expenditures on social protection have been especially promising to include. Egger et al. (2022) estimated the impact of cash transfer programs in Kenya and Tanzania and concluded that there are critical favorable impacts on consumption, school attendance, and health outcomes of recipient households. They, however, observed a few positive effects other than short-term alleviation of poverty, indicating that there is a need to supplement it with other interventions to develop long-term ways out of poverty. In a study of the investments in infrastructure in Kenya, Isaac (2019) discovered that in the cases of transport and energy infrastructure investment, the growth it brought was aggregate and tended to be spatially concentrated, creating more inequalities among the regions.

Governance Quality and Development Outcomes

The governance-growth nexus has noted in extensive research, with recent literature going beyond aggregate measures to look at individual dimensions of governance. Dorsch et al. (2021) differentiated between procedural and substantive measures of governance (how the rules are applied or what outcomes are attained, respectively) and concluded that the latter explained development progress in African settings more effectively. Their study on Ghana and Rwanda pointed to the importance of the fact that good development results may be achieved by countries using various forms of governance and defying the one-size-fits-all prescriptions.

Political stability has become very important for long-term development. In a study of the history of competitive authoritarian regimes in East Africa, Cheeseman et al. (2021) observed that although many of them provided infrastructure and economic development, they also tended to restrict political liberties and institutional development in the long term. Their study proposed that the perceived trade-off between democratic accountability and development effectiveness might not be quite as clear as earlier believed, with some of the hybrid types of regimes even attaining a decent growth rate as well as political stability.

The impacts of corruption are not as obvious as the previous literature implied. Koebis et al. (2022) differentiated between the petty corruption that, in most cases, makes citizens and businesses spend more and the grand corruption that may alter the whole policy frameworks. In Uganda, their experimental study had discovered that anti-corruption interventions had to be precisely focused based on certain forms of corruption, and blanket interventions usually had little impact. On the same note, Mungiu-Pippidi (2023) stated that corruption should be taken as an equilibrium of specific instead of universalistic systems of governance, which needed systemic instead of piecemeal reforms.

Interactive Effects and Policy Coherence

The current literature notes that aid, fiscal policies, and governance do not work alone but rather do so in complex ways. Several recent studies have updated the initial research on aid and institutions by Braütigam and Knack (2004). Moss et al. (2006) of the aid-institutions paradox, in which large aid inflows may be corrosive to local accountability systems. Gehring et al. (2023) more recently attempted to examine the relationship between types of aid and domestic revenue mobilization and discovered that technical assistance on tax administration tends to operate in a complementary manner with domestic mobilizations, and budget support tends to generate substitution effects.

Coherence in policies has become an issue of concern. Kato and Moles (2024) have created a framework to evaluate the coherence between aid priorities, domestic fiscal policies, and governance reforms, and implemented it into the process of developing a plan to achieve the development goals in Ethiopia. According to them, there were great mismatches, especially in the priorities of social sectors by donors and the infrastructure priority by the government, which resulted in disjointed execution and inefficient results. In the same manner, Janus and Klingebiel (2025) examined the impact of the Sustainable Development Goals framework on policy coherence in East Africa, finding that it had benefited certain aspects but still faced the challenges of integrating the economic, social, and environmental goals.

Research Gaps

The review demonstrates that there are some significant gaps in the literature. To begin with, although much has been researched on individual determinants of inclusive growth, the interactive influence of these determinants has not been adequately researched, especially in the East African setting. Second, in most of the studies, they have either studied the effects of the short-term or the long-term trends without designing appropriate dynamic methods to study both at the same time. Third, the literature has a tendency to explain governance as an external factor that determines the developmental outcomes and ignores the way development processes lead to governance outcomes. Fourth, regional peculiarities in East Africa are often neglected in cross-country studies where different countries experience is amalgamated.

The paper will help to fill these gaps by investigating the combined impacts of aid, fiscal policy, and governance on inclusive growth in East Africa in an approach that separates short-run dynamics and long-run relationships. By targeting East Africa, we capture regional specifics and equally determine common trends that can guide the coordination of the policy regionally and specific reforms in countries.

METHODOLOGY

Data Sources and Inclusive Growth Index Construction

The data used in the research is sourced from internationally recognized secondary sources in order to make it more reliable and cross-country comparable. The variables of institutional quality are Political Stability, Control of Corruption, Government Effectiveness, Regulatory Quality, Rule of Law, and Voice and Accountability, which are obtained under the Worldwide Governance Indicators of the World Bank. These signs summarize the credibility of the governance, regulatory capability, legal implementation, and accountability, which determine policy performance, the level of investment, and distributive performance. Fiscal variables include Government Consumption (% of GDP), Tax Revenue (percent of GDP), Net Official Development Assistance (ODA, percent of GDP), and Total Population derived using the World Development Indicators, with ODA initially being published by the OECD Development Assistance Committee. Therefore, the mobilization of domestic resources and redistributive capacity is captured in taxes, external fiscal space in ODA, and Total population variables in control of demographic pressures in inclusive outcomes.

The creation of the Inclusive Growth Index (IGI) rests on the emerging literature on inclusive development. The initial ones, including the United Nations Development Programme Human Development Index, focused on human welfare but had little regard for the dynamics of inequality and growth. The social opportunity functioning was proposed by Ali and Son (2007), which added the meaning of distribution and averages, but McKinley (2010) extended the approach to incorporate employment, infrastructure, and social inclusion. Klasen (2010) associated distributional change with income growth, and Anand (2013), following Hausmann et al. (2005), emphasized the role played by growth accelerations in the determination of inequality. Mkrtchyan et al. (2025) and Barnat et al. (2023) incorporate the economics, social, and governance dimensions in more recent composite IGIs. With the assistance of the above inputs, the current research paper develops an IGI based on the HDI, Gender Inequality Index, the Gini Index (WDI), and GDP per capita used to construct growth acceleration as a dummy variable. The normalization of indicators is done through min-max transformation, and aggregated using Principal Component Analysis to ensure theoretical consistency and empirical strength.

The methodology of the study is a dynamic panel model used to investigate the association between institutional quality, fiscal variables, external assistance, and inclusive growth. In view of the cross-country interdependence, cross-sectional dependence is tested at first with the approach offered by Pesaran (2004). In order to overcome non-stationarity when there is cross-sectional dependence, the Cross-Sectionally Augmented IPS (CIPS) test, suggested by Pesaran (2007), is used. The Pooled Mean Group (PMG) estimator of Pesaran, Shin, and Smith (1999), which is based on the ARDL model, and estimate long-run and short-run dynamics. The PMG methodology allows heterogeneous adjustments in the short-run and homogeneous adjustments in the long-term, and is re-parameterized into an error-correction form to model relationships at equilibrium and the speed of adjustment. The eclectic panel experiences of Eberhardt and Presbitero (2015) and the practical works of Blackburne and Frank (2007) support its topicality.

Irrespective of the methodological improvements, there are still great limitations of data. According to Jerven (2015), there exist ongoing measurement difficulties in the African GDP, poverty, and governance data. Although efforts like the Statistical Capacity Building programme of the World Bank and Data for Development of the IMF have enhanced better data systems, there are still loopholes. Arndt et al. (2016) report positive changes in the household surveys conducted in East Africa, but also highlight the concerns about the timeliness and the coverage of the informal sector. Moreover, when scaled-up governance reforms are being evaluated using rigorous micro-level evidence, such as that by Banerjee et al. (2020), meta-analyzing six countries, including Uganda, the external validity challenge and political-economic limitations remain prominent.

The processes are put together to offer methodological rigor in the form of cross-sectional dependence, mixed integration orders, and dynamically heterogeneous panel structure.

Cross-Sectional Dependence (CD) Test

Cross-sectional dependence has to be tested before the panel estimation, whereby the shocks of one country on other countries should be established. The residual-based test can be represented using Pesaran's (2004) CD framework as follows:

$$CD = \frac{\sqrt{2T}}{N(N-1)} \sum_{j=i+1}^N \hat{\rho}_{ij}$$

where:

N = number of cross-sections (countries),

T = time dimension,

$\hat{\rho}_{ij}$ = pairwise correlation of residuals from:

$$IGI_{it} = \alpha_i + \beta'X_{it} + \varepsilon_{it}$$

and,

$$X_{it} = (\text{PStab}_{it}, \text{CoC}_{it}, \text{GEff}_{it}, \text{RQ}_{it}, \text{RoL}_{it}, \text{Voice and Acc}_{it}, \text{TRev}_{it}, \text{ODA}_{it}, \text{TPop}_{it})$$

and,

X_{it} = six governance indicators, demographic, and macroeconomics variables

CIPS Panel Unit Root Test

Since there may be cross-sectional dependency, the Cross-Sectionally Augmented IPS (CIPS) test is used. The regression that is cross-sectionally augmented with Dickey-Fuller (CADF):

$$\Delta y_{it} = \alpha_i + b_i y_{it} + c_i \bar{y}_{t-1} + d_i \Delta \bar{y}_t + \sum_{k=1}^p \gamma_{ik} \Delta y_{i,t-k} + u_{it}$$

Where:

\bar{y}_t = cross-sectional average of y_{it} .

The CIPS statistic is computed as:

$$\text{CIPS} = \frac{1}{N} \sum_{i=1}^N t_i(N, T)$$

This procedure is applied to the following:

$$IGI_{it}, \text{Pstab}_{it}, \text{CoC}_{it}, \text{Geff}_{it}, \text{RQ}_{it}, \text{RoL}_{it}, \text{Voi \& Acc}_{it}, \text{TRev}_{it}, \text{Oda}_{it}, \text{ and TPop}_{it}$$

Pooled Mean Group (PMG-ARDL) Model

In case the variables are combined of order I(0) and I(1), the Panel ARDL (PMG) model of Pesaran, Shin, and Smith (1999) may be used.

The ARDL (p, q, q, q, q, \dots, q) specification:

$$\begin{aligned} IGI_{it} = & \sum_{j=1}^p \phi_{ij} IGI_{i,t-j} + \sum_{j=0}^q \beta_{1ij} ODA_{i,t-j} + \sum_{j=0}^q \beta_{2ij} TRev_{i,t-j} + \sum_{j=0}^q \beta_{3ij} PStab_{i,t-j} \\ & + \sum_{j=0}^q \beta_{4ij} CoC_{i,t-j} + \sum_{j=0}^q \beta_{5ij} GEff_{i,t-j} + \sum_{j=0}^q \beta_{6ij} RQ_{i,t-j} + \sum_{j=0}^q \beta_{7ij} RoL_{i,t-j} \\ & + \sum_{j=0}^q \beta_{8ij} \text{Voice \& Acc}_{i,t-j} + \sum_{j=0}^q \beta_{9ij} TPop_{i,t-j} + \mu_i + \varepsilon_{it} \end{aligned}$$

In other words, restatement in the form of the Error Correction Model (ECM):

$$\Delta IGI_{it} = \lambda_i (IGI_{i,t-1} - \theta_1 ODA_{i,t-1} - \theta_2 TRev_{i,t-1} - \theta_3 PStab_{i,t-1} - \theta_4 CoC_{i,t-1} - \theta_5 GEff_{i,t-1} - \theta_6 RQ_{i,t-1} - \theta_7 RoL_{i,t-1} - \theta_8 Voice \& Acc_{i,t-1} - \theta_9 TPop_{i,t-1} - \sum \psi_{ij} \Delta IGI_{i,t-j} + \sum \gamma_{ij} \Delta X_{i,t-j} + \mu_i + \epsilon_{it})$$

Where:

- λ_i = speed of adjustment (expected negative and significant),
- $\theta_1, \dots, \theta_9$ = long-run coefficients (assumed homogeneous across countries under PMG),
- Short-run dynamics are allowed to differ across countries.

RESULTS AND DISCUSSION

Cross-Sectional Dependence and Stationarity Properties

The initial diagnostic tests can be interpreted or diagnosed as possessing complex data properties that have high possibilities with regard to model specification. Comparative results of the Pesaran cross-sectional dependence (CD) test indicate the clear presence of a two-way split in the interdependence patterns of variables (Table 1). The statistically insignificant CD statistics of the governance indicators and fiscal variable Government Consumption (CD = 1.61, p = 0.107), Political Stability (CD = -1.62, p = 0.105), Control of Corruption (CD = 0.96, p = 0.338), Government Effectiveness (CD = 1.32, p = 0.185), Regulatory Quality (CD = 0.60, p = 0.546), Rule of Law (CD = -0.23, p = 0.820) and Voice and On the same note, there is only slight indication of interdependence in Tax revenue as a percentage of GDP (CD = 1.31, p = 0.191). Conversely, the major economic variables exhibit a high correlation of cross sections: Net ODA percentage of GDP = 7.64(p=0.000), Total Population= 28.67(p=0.000), and the Inclusive Growth Index= 4.94(p=0.000). This dichotomy implies that the pattern of governance changes comparatively independently among the East African countries, but the macroeconomic variables have a significant degree of similarity, which is presumably due to regional integration, common external shocks, and development paradigms.

Table 1: Cross-Sectional Dependence Test Results

Variable	CD-Statistic	p-value	Cross-Sectional Dependence
PStab	-1.62	0.105	Not Significant
CoC	0.96	0.338	Not Significant
GEff	1.32	0.185	Not Significant
RQ	0.60	0.546	Not Significant
RoL	-0.23	0.820	Not Significant
GCons	1.61	0.107	Not Significant
Voice & Acc	0.26	0.795	Not Significant
TRev (% of GDP)	1.31	0.191	Not Significant
ODA (% of GDP)	7.64	0.000	Significant***

TPop	28.67	0.000	Significant***
Inclusive Growth Index	4.94	0.000	Significant***

*Note: *** indicates significance at 1% level.*

The CIPS test panel unit root tests make the situation even more difficult, as they indicate mixed integration orders across variables (Table 2). Most of the governance indicators, namely Political Stability (PStab), Government Effectiveness (Geff), Regulatory Quality (RQ), Rule of Law (RoL), and Voice and Accountability (Voice & Acc), are non-stationary in the sense that their CIPS statistics do not surpass levels of conventional critical values when assessing the conventional levels of significance. Control of Corruption (CoC) has a border case scenario since it is stationary at only 10% level. Key fiscal and development variables, in contrast, are stationary at levels, except for Government Consumption (Gcons). GCons does not exhibit any stationarity at the level, but it is stationary at the first difference, which indicates order one integration, I(1). Tax Revenue (TRev) as a percentage of GDP, Official Development Assistance (ODA) Revenue as a percentage of GDP, and the Inclusive Growth Index, all of which reject the null hypothesis of a unit root at the 1 percent significance level. Demographic variables are of mixed trends: Total Population (TPop) and Urban Population (UrbPop) are not changing, whereas Population Growth Rate (Popgr) is. Later tests verify that first differencing effectively converts all non-stationary series to stationarity, making their integration of order one [I(1)]. It is the combination of I(0) and I(1) variables that requires methodological solutions that can deal with the possibility of cointegrated relationships and justify the use of the Pooled Mean Group (PMG) estimator in further analysis.

Table 2: CIPS Panel Unit Root Test Results

Variable	Level CIPS	Form	Stationarity (Level)	First Difference CIPS	Stationarity (First Difference)
PStab	-1.832		I(1)	-3.326***	I(0)
GEff	-1.945		I(1)	-3.389***	I(0)
RQ	-1.917		I(1)	-3.221***	I(0)
RoL	-1.889		I(1)	-3.547***	I(0)
Voice & Acc	-1.963		I(1)	-3.422***	I(0)
GCons	-1.951		I(1)	-2.366**	I(0)
TRev (% of GDP)	-3.215***		I(0)	-	-
ODA (% of GDP)	-3.442***		I(0)	-	-

Inclusive Growth Index	-3.028***	I(0)	-	-
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*Note: *** indicates significance at 1% level.*

Pooled Mean Group Estimation Results

This PMG estimation gives confirmatory as well as counterintuitive findings on the determinants of inclusive growth in East Africa (Table 3). The best positive influence in the long-run equilibrium relationship is political stability, with a coefficient of 0.1057 ($p = 0.000$), thus implying that a one-unit increment in political stability improves inclusive growth by about 10.6 percentage points. The effect of government expenditure is rather weak ($\beta = 0.0131$, $p = 0.000$); however, it is statistically significant, which indicates that productive public investment is a contributor to inclusive development. Nevertheless, the government effectiveness also gives a confusing negative correlation ($\beta = -0.1979$, $p = 0.000$), which conflicts with the traditional orthodoxy of governance. The long-run relationship of foreign aid, because of the Net ODA to GDP ratio, is significantly negative ($\beta = -0.0184$, $p = 0.000$), which is also in line with the critical views on the effectiveness of aid. The long-run effects of control of corruption ($\beta = 0.0248$, $p = 0.507$), tax revenue ($\beta = 0.0042$, $p = 0.117$), and population growth ($\beta = 0.0177$, $p = 0.226$) are statistically insignificant.

Table 3: PMG Estimation Results for Inclusive Growth Determinants

Variable	Long-Run Coefficient	Standard Error	z-statistic	p-value	Short-Run Coefficient	Standard Error	z-statistic	p-value
Long-Run Equilibrium (ECM)								
PStab	0.1057***	0.0244	4.32	0.000	0.0734	0.2295	0.32	0.749
CoC	0.0248	0.0373	0.66	0.507	-0.0024	0.1304	-0.02	0.985
GEff	-0.1979***	0.0494	-4.01	0.000	-0.2180	0.5119	-0.43	0.670
GCons	0.0131***	0.0024	5.49	0.000	-0.0085	0.0129	-0.66	0.512

TRev	0.0042	0.0026	1.57	0.117	-0.0180**	0.0075	-2.40	0.016
ODA	-0.0184***	0.0017	-10.92	0.000	0.0096	0.0062	1.55	0.122
TPop	0.0177	0.0146	1.21	0.226	-0.2182	0.2235	-0.98	0.329
Error Correction	-1.1094***	0.1739	-6.38	0.000				
Cons	0.2239***	0.0413	5.42	0.000				

*Note: ***, ** indicate significance at 1%, 5% levels respectively.*

Cointegration of the variables is proved by the error correction term ($\beta = -1.1094$, $p = 0.000$), which means that the adjustment towards the equilibrium is rather fast, almost 111 percent of the disequilibrium is corrected within one period. Tax revenue reveals strong dynamics in the short run ($\beta = -0.0180$, $p = 0.016$), which implies that there are short-term negative effects, but these do not last. Other variables have insignificant short-run effects, and this suggests that their effects are mostly long-term oriented. The long-run consumption effect of the government is significant ($= 0.0131$, $p = 0.000$), and the short-run effect is insignificant ($= -0.0085$, $p = 0.512$).

DISCUSSION

The Governance Paradox: Stability versus Effectiveness

The contrasting nature of the effects of various dimensions of governance is one of the main puzzles in our results. The positive relationship between political stability and inclusive growth is high, and this follows the institutional economics literature that highlights the need to have predictable political environments to underpin sustained development (Acemoglu and Robinson, 2012; North, 1990). This observation confirms theoretical assumptions that stable political regimes lower the uncertainty of the policy, promote long-term investments, and the development of an institutional framework that is conducive to the growth of the economy in a broad-based manner. Nonetheless, the negative coefficient in the case of government effectiveness is significant, and it is worth a close interpretation.

There are a number of possible theories that are worth taking into account. To begin with, measurement problems can give the traditional signs of governance the wrong approach, as stated by Andrews et al. (2017), who warn against the simplistic application of global governance measures to the contexts of various countries. Second, governance variable multicollinearity may generate counterintuitive signs, but diagnostic tests indicate that there is a weak correlation. Third and most substantively, the negative correlation could be a product of contextual realities that exist in East Africa, where some types of effective government action, though technically adept at implementation, may give preference to narrow interests above inclusion based on broad bases. This structure can be associated with the analysis conducted by Isaac (2019) on the state of Kenya's development, which showed great results in infrastructure development, but at the cost of equal distribution: The conclusion is that the conventional measure of governance can reflect the bureaucratic capacity that might not be reflected in an inclusive developmental outcome, especially in political economies where the output of the elite either captures or is an excluding growth process.

The Aid Effectiveness Dilemma Revisited

The high negative long-run correlation between inclusive growth and foreign aid is one of the reasons why the topic of development assistance to Africa continues to be debatable. Although short-term aid flows can bring vital resources that help to fulfill the urgent needs, our findings indicate that there are some long-term negative impacts that can take place. This observation substantiates the view of critical objections, stating that aid may lead to dependence, corrupt local incentives, and undermine domestic accountability systems (Djankov et al., 2008; Easterly, 2006). In East Africa, the outcome, in particular, corresponds with the description of how fragmented aid in Tanzania decreased the policy coherence and the ability to implement it provided by Kinyondo and Pelizzo (2022).

Nevertheless, this should be interpreted with delicacy. It is possible to describe different processes in terms of negative dependence: (1) Dutch disease processes in which aid strengthens real exchange rates and weakens export competitiveness; (2) governance distortions in which aid undermines the need to halt domestic reforms; or (3) substitution effects in which aid substitute's alternative mobilization of domestic resources. It is worth noting that our result is the opposite of the positive evaluation of the influence of aid on tax capacity in Rwanda by Mascagni and Timmis (2021), which shows significant country-specific differences in the region. This indicates that the aid-inclusive growth association is conditional on governance settings, forms of aids and home policy frameworks. The outcome highlights the need to transcend volume-based strategies to assist with more strategic, conditional, and ownership-based assistance, which reinforces instead of replacing local institutions and assets.

Fiscal Policy's Asymmetric Impacts

The contrasting implications of fiscal policy elements illustrate some significant details on the role of public finance in ensuring inclusive growth. The positive long-term relationship between government spending justifies the productive state investment in infrastructure, education, and social safety nets, which can help overcome structural constraints and establish facilitating environments with which broad-based development can occur (Rodrik, 2008; Stiglitz, 2012). This observation is consistent with the efficiency frontier analysis by Balakrishnan et al. (2013), which revealed that the efficiency of the public spending that is well-targeted could bring substantial returns to development.

Government consumption (GCons) dynamics would unite opposite short-run and long-run impacts of inclusive growth. The GCons has a positive but statistically significant influence in the long-term ($\beta = 0.0131$, $p = 0.000$), which means that a 1 percent increase in the government consumption expenditure increases the inclusive growth by about 0.013 percent. This implies that expansionary fiscal expenditure can provide a short-term stimulus to the aggregate demand, improvement of the service delivery by the government, and maintenance of income distribution, as it is done by the Keynesian theory and high-quality empirical research (Anand et al., 2013), which emphasizes fiscal interventions as a key to inclusive growth in developing economies.

Conversely, the short-run impact of GCons is also negative and statistically non-significant ($\beta = -0.0085$, $p = 0.512$), which means that the long-term effect of the government consumption is not significant in the long-term inclusive growth when considered in isolation. This non-significance could be indicative of inefficiency in government spending arrangements, or dysfunctional institutional arrangements, or a periodical crowding out of productive investment. These results are consistent with those of Acemoglu et al. (2012), who contend that in the absence of good institutions, fiscal expansions might not yield widely distributed benefits of development. In general, government consumption can be helpful in short-run inclusive growth; however, effective spending, good quality of institutions, and fiscal sustainability are necessary in the long-run effects, and the quality and allocation of government spending are more important than the amount.

Nevertheless, the situation with the tax revenue is more complicated. Although this does not matter in the long-run, it indicates that a tax increase will have negative short-run impacts that tend to cool down

economic activity in the short-term before the potential benefits can be realized. This conflict represents the persisting discussions of the region concerning the best methods of taxation that can generate revenue, but at the same time stimulate economic incentive, especially in economies that have deep informal sectors and lack the resources of implementation (Chelwa & Ndlovu, 2023). This trend implies that inclusive growth fiscal policy has to be conducted with a keen eye on the nature of expenditures as well as revenue system design, which must be conscious of timing and sequencing issues.

Methodological Implications and Regional Specificities

The very fast error correction speed ($ECT = -1.109$) is a matter of methodological consideration. Although the cointegration is confirmed, this coefficient implies that the adjustment occurs more quickly than the economy would expect. This can be interpreted in several ways: (1) the characteristics of measurements or the frequency of data can affect the estimated rate of convergence; (2) regional integration via programs such as East African Community can lead to fast policy coordination and adaptation; or (3) externalities, such as the policies of international financial institutions, can make the convergence to equilibrium faster. The results of this finding indicate the significance of contextual factors in the adjustment dynamics and imply that conventional economic models might require regional adjustment.

The combination of $I(0)$ and $I(1)$ variables further adds to the significance of relevant econometric tools in the development analysis. The fact that the PMG estimator allows both a heterogeneous short-run and a homogeneous long-run relationship makes the application of this estimator specifically appropriate to the East African panels with heterogeneous country experiences but homogeneous regional constraints. This method development goes beyond the traditional fixed effects or difference GMM estimators that can test unreasonable homogeneity assumptions.

CONCLUSION

At the end of our analysis, we have found that the relations between fiscal variables, governance, and inclusive growth are complicated and counterintuitive in East Africa. Although the results affirm the primacy of political stability as a basis to aid development, it opposes naive governance orthodoxy and pose significant questions of aid effectiveness. The results help to change the existing literature that pays attention to the complexity and contextual sensitivity of development processes and emphasizes the need to consider combined policy tactics, which consider the interplay of external resources, domestic policies, and institutional quality. Nonlinearities, threshold effects, and country-specific contingencies that could further clarify the paradoxical routes to inclusive growth in the region should be investigated in future research.

Policy Implications for East Africa

The results can have several policy implications for the East African countries interested in improving inclusive growth:

Give precedence to Political Stability: The high positive relation indicates that attempts to ensure stable political conditions must take priority in the eyes because they provide the required conditions for long-term inclusive development.

Rethink Governance Interventions: The adverse government effectiveness result warns of unthinking implementations of global governance templates and recommends that reforms should be tailored to particular circumstances of institutional limitations to inclusion.

Transform Aid Relationships: This correlation is negative in the long-run, which means the assistance needs to be shifted towards more strategic measures that help build domestic institutions, increase ownership, and evade dependency traps.

Streamline Fiscal Policy Design: The asymmetry of the impacts of both investment and taxation recommends the need to have combined fiscal systems that comprise productive government expenditure alongside well-considered revenue systems that have minimal short-term distortions.

Consider Regional Integration: Regional coordination is becoming more significant in policymaking and implementation, as shown by the dynamics of rapid adjustment and the patterns of cross-sectional dependence.

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