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The Effectiveness of Institutional Quality and Fiscal Policy in Enhancing Inclusive Growth in Ethiopia Comparative Analysis

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Title

The Effectiveness of Institutional Quality and Fiscal Policy in Enhancing Inclusive Growth in Ethiopia: Comparative Analysis

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Abstract

Nowadays, GDP growth does not guarantee all classes of society participate in the growth process and reap the benefits fairly. This diverts the attention of international development agencies towards inclusive growth which includes many dimensions of growth. The objective of this study was to evaluate the evolution and effectiveness of institutional quality and fiscal policy (tax revenue and government expenditure) in Ethiopia and compare the results with other African countries having similar economic performance to Ethiopia. The study covers the period from 1991 to 2022. The descriptive result revealed that Ethiopia's GDP per capita is low, but its growth rate is higher than other countries. However, declining tax revenue and high debt and defense spending reduce fiscal space, limiting infrastructure and social spending. Institutional quality is poor due to the history of governance issues since the Derg regime. Econometric analysis shows Ethiopia's fiscal policy is ineffective, with tax revenue and government expenditure having an insignificant or negative impact on inclusive growth, unlike other countries where these factors positively affect inclusivity. Therefore it is recommended that reforms be made by targeting indirect taxes, reducing evasion, and utilizing technology in tax collection, reducing debt, and refocusing on productive assets, institutional reforms are needed to enhance justice, political stability, and accountability.

Key words and Phrases: Inclusive growth; institutional quality; fiscal policy.

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1. INTRODUCTION

1.1. Background and motivation of the study

Though the world is going through new levels of economic growth millions of people are deprived in many dimensions and billions are highly vulnerable. For instance, in 2012 around 896 million people were in extreme poverty and 2.1 billion people were highly vulnerable to hunger which indicates that GDP or per capita income growth alone is insufficient to improve the quality of life and foster inclusive development (UNDP, 2017). In addition, income growth alone tells us nothing about the distribution of growth dividends among different classes of society (OECD, 2014). OECD's argument is supported by Adedeji et.al., (2013) in that Growth on its own does not ensure that everyone would gain; it has the potential to exacerbate the income gap and exclude the very poor. Because of this, the shift from economic growth to inclusive growth is emphasized in the current international development strategy. Inclusive growth is one of the essential thoughts developed after Kanbur (2000) criticized the U-shaped per capita income and income inequality relationship developed by Kuznets (1955).

While various scholars have provided distinct definitions of inclusive growth, all agree that a novel approach is required to tackle economic and social inequalities such as income, assets, human capital, and other economic opportunities (Adedeji et.al., 2013). Some of the definitions are: inclusive growth is growth ensuring that all, particularly the deprived, can take advantage of economic opportunities created by GDP growth (ADB, 2007; Ali and Zhuang, 2007). The multidimensional concept of inclusivity focuses on bettering living standards and well-being while also raising concerns about whether this material well-being is distributed fairly among various social groups (Munier et.al., 2022). People use inclusive growth and pro-poor growth interchangeably. However, the first goes beyond just evaluating growth and concentrating on the condition of the poor and affirms the relative state of both the underprivileged and wealthier sections of society (Aoyagi & Ganelli, 2015). In addition, inclusive growth holds that all societal segments should be able to profit from and participate in economic growth (Thorat & Dubey, 2013).

Ethiopia's economy, which is one of the countries this study focuses on, has grown at one of the quickest rates in sub-Saharan Africa and among the top ten fastest in the world since the 2000s. From 2000 to 2018, its economy grew at a rate of 7-8% per year, which is twice as fast as the average for sub-Saharan countries. The country's growth rate is expected to be 5.8% in 2023 and 6.2% in 2024 (UNDP, 2022). However, a UNDP (2013) study shows that despite

growing GDP per capita in Ethiopia, there is a growing income inequality and a growing wealth gap between the rich and the poor. The country faces numerous challenges such as high unemployment, inflation, income inequality, low social satisfaction, unequal income distribution, subpar education, shorter life expectancies, political unrest, and inadequately developed institutions. The country has the lowest access to basic services globally for 186 countries, ranking 161 and 174 in 2016 for improved sanitation and clean water, and 154th in agricultural production and primary school completion.

Furthermore, nearly 25% of the country's population, lives in extreme poverty with daily incomes of less than US\$1.9. Ethiopia was rated 174th out of 188 nations in the 2015 Human Development Index (HDI) (Donnenfeld et al., 2017) and 173rd out of 189 countries in 2019 (BTI, 2022). The low quality of health care and education, together with a fall in public education and health education as a percentage of GDP from 2017 to 2018 and 2019, all contribute to poverty and a lower standard of living. All these indicate inclusive growth in Ethiopia is low and does not go parallel to income growth. For instance, in 1993 country's multidimensional inclusiveness index was 11.9 and it increased to 23.5 in 2018 Dörffel & Schuhmann (2022) and ranked 107 among 168 countries. For instance, Kamah et al. (2021) argue that different African countries like Ethiopia are still having difficulty in sharing the benefits of economic development on the continent. This bolsters the argument made by Ravallion (2014) that whereas growth has significantly reduced the prevalence of poverty, it has done so in a more uneven manner.

While researchers agreed on the relevance of inclusive growth, they used different tools to measure inclusive growth, and the factors affecting it depend on the type of measures used (Garcia-Verdu et.al., 2011) and the income level of countries (Munir et.al., 2022; Anand et.al., 2013). The question of why certain countries experienced faster growth in various dimensions (multidimensional inclusiveness) than others has been a recurring theme in the literature on economic growth. Related to this question studies by Olanrewaju et al., (2019) and Fonchamnyo et al., (2023) conclude that development gaps across countries are caused, among other things, by variations in the quality of institutional components and macroeconomic policy, which determines the distribution of the gains from economic growth.

Therefore, this study focused on the effect of institutional quality and fiscal policy on inclusive growth in Ethiopia and other African countries (Botswana, Ghana, Mauritius, Namibia, and South Africa) with the top first quantile institutional quality categorized by Fosu (2019) will

be used as a comparative study. These countries have electoral democracy (Freedom House Survey, 2023), but Ethiopia has no electoral democracy. Moreover, based on the political freedom index (civil liberty and political rights) estimation of the freedom survey the seven countries are politically free with Seychelles partially free, but Ethiopia is not free. However, the average growth of per capita income from 1996 to 2015 is 5.13%, which is higher than the per capita income growth of the selected countries (Fosu, 2019). When we consider multidimensional inclusive development computed from 1993 to 2018 Ethiopia ranks 107th, better than Botswana (148th), South Africa (151st), and Namibia (155th). While, Mauritius ranks (61th) and Ghana (103th) (Dörffel & Schuhmann, 2022). This value shows that higher per capita growth does not mean better inclusive growth. Hence, this study will evaluate the impact of institutional quality and fiscal policy on the inclusive growth of selected African countries.

Some studies show the relationship between institutional quality and growth. good institution affects growth and development in four channels: higher trust in society (Knack & Keefer, 1995; Opper, 2008), productivity ((Yildirim & Gokalp, 2016), the emergence of market, and coordinating fiscal policy and cooperation in line with other development policies (Ugur, 2010). The role of institutions in economic development, which this study will discuss in detail, was first emphasized by North (1993). According to Ali & Son (2007), the main requirement to achieve inclusive growth is introducing institutional and governance reform. Munir et.al., (2022) explain that inclusive growth is influenced by the quality of the institution. Another study by Garcia-Verdu et.al., (2011) on sub-Saharan Africa revealed that the region's high growth is not sufficiently inclusive. They also pointed out that the elasticity of poverty reduction, one of the components of inclusive growth, to change in GDP growth differs from country to country. The rate of change in the hierarchy of social analysis affects institutional quality and in turn development (Williamson, 2000).

The other important variable that will be used as a main factor affecting inclusive growth is fiscal policy. Many empirical studies revealed that fiscal policy is essential for inclusive growth. An attempt to improve equity via fiscal policy such as tax lowers efficiency by creating a disincentive to work and in turn, dampens economic growth (Okun, 1975). Contrary to this fiscal policy would benefit the poor and improve growth through improving human capital, infrastructure, and health (Alekhina & Ganelli, 2020; Garcia & Turnovsky, 2007; Ostry et al. 2014; Aoyagi and Ganelli 2015). Fiscal policy improves the inclusiveness of economic growth, but its effect is stronger in advanced economies than in emerging developing countries (Clements et al., 2015). Another study by Hope & Limberg (2022) shows that the effect of

fiscal policy on the inclusiveness of economic growth depends on the combined effect of both tax and government expenditure i.e. if public expenditure for pro-poor is financed by tax, fiscal policy improves inclusiveness as compared to a free market economy which advocates no government intervention.

Overall, in recent years inclusive growth has received great attention. However, the literature on the role of fiscal policy and institutional quality on inclusive growth is very limited, particularly in Africa. There are few studies conducted on the subject area by taking Africa as a case study. However, the majority of current studies on inclusive development have only taken into account the income dimension of well-being, most of the studies mainly focused on per capita income growth and income inequality. Besides, previous studies overlooked the non-income component of inclusive growth and intergenerational equity and sustainability. Therefore by including both income and non-income dimensions of growth, this study will employ a multidimensional inclusiveness index developed by Dörffel & Schuhmann (2022) and based on explicit differentiating between absolute achievements and equity (Anand et al., 2013) and intend to examine the effectiveness of institutional quality and macroeconomic policy by taking some African countries as a case study.

1.2. Objectives of the study

1.2.1. General objectives of the study

The main objective of this study is to examine the effectiveness of institutional quality and fiscal policy on the inclusive growth of some selected African countries.

1.2.2. Specific objectives of the study

Specifically this study will try to address the following objectives;

- ❖ To examine the evolution of inclusive growth and to compare it with its peers in terms of economic growth.
- ❖ To evaluate the evolution of Fiscal Policy and institutional quality in Ethiopia and to compare these indicators with its peers in terms of economic growth.
- ❖ To identify the impact of fiscal policy and institutional growth on inclusive growth in selected African countries that have similar economic growth in Ethiopia.

1.3. Significance of the study

Inclusive growth is essential for the sustainability of per capita income growth and the well-being of society as a whole. So, knowing the determinant factors, particularly the two major

concerns: fiscal policy and institutional quality is important for policymakers, development practitioners, and researchers. One of the main contributions of this study is that it includes intergenerational equity sustainability and non-income dimensions. The other significance will be identifying the interaction effect of fiscal policy and institutional quality for inclusive growth, which is not examined in the previous studies.

1.4. Organizations/outline of the study

The rest of the paper could be organized as follows: The next section includes a review of the related theoretical and empirical literature on inclusive growth, institutional quality, and fiscal policy. The third section includes the design and methodology of the study. The fourth section includes empirical findings and a discussion. Finally, in section five conclusion is drawn and potential policy recommendations are forwarded.

2. REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE

2.1. Theoretical Literature

2.1.1. Institutional development and its challenge in Ethiopia

The underlying issue with Ethiopia's institutional failure is its long-standing governance crisis, which has been defined by a small elite group exercising arbitrary control over the silent majority of the populace (Asfaw, 2019). Historian Bahru Zewde has divided Ethiopia's experience with institutional development into three historically discrete periods: the period of institution building (1941–1974); the period of economic and human distress (1974–1991); and the period of restructuring and ethnic federalism experimentation (1991–present). Looking back at the pre-1974 era, Bahru states that the period 1941–1974 strikes one by the number of solid achievements that were registered in the sphere of institutionalization. During this period, for example, Ethiopian airlines, banks, telecommunications, national universities, and agricultural research systems were established. These institutions remain the backbone of the nation's economy and social services, encompassing public administration, finance, education, and infrastructure. During this time, the political system that was typified by monarchy and the lack of democratic governance was to blame.

The military government known as the Derg, which governed from 1974 to 1991 and guided the country's political and economic policies in the wrong direction, constituted the second notable era. This regime created an organization to support the Soviet Union's totalitarian system and accepted it. Along with encouraging destructive behavior instead of productive behavior, it also led to the destruction of human capital, the suppression of civic society, and the failure of economic endeavors. Like in North Korea and East Germany, the people there were forced to embrace a strange form of command socialism, which is infamous for its extreme power centralization. The social problems and persistent poverty that persist now are the result of its institutions and policies from that era. Despite having a weak industrial base to begin with and dealing with a devastating war in the 1950s, South Korea is economically at least ten times better off than North Korea due to differences in institutional structure (Economist, February 22, 1997). Similar problems emerged in East Germany, which embraced command socialism, and West Germany, which embraced the free market (Asefa, 2003). As a result, the average income in East Germany is just 40% of the average income in West Germany, claims Kasper (1998).

The Ethiopian People's Revolutionary Democratic Front (EPRDF), the country's ruling party, openly professes its support for a market economy in the third separate phase, which began after 1991. However, internal party strife in 2001 raised concerns about potential challenges to political and economic transformation. Since 1991, there has been a limited free press, the lifting of price controls, a moderate promotion of private economic activity, and the implementation of decentralization programs. The author highlights important institutional obstacles and roadblocks to a smooth transition to a market economy, even though they are recognized as important beginning points (Asefa, 2003). It is widely acknowledged that Ethiopia has made notable progress in political, economic, social, and human development in the last few decades under the current administration, as opposed to the previous one (Hashim, 2010). Ethiopia's economy is among the top ten fastest growing in the world, however, over the past ten years, Africa Renewal (2015), the World Bank (2012), and the IMF (2016) have noted that the country's social and political structures, as well as the distribution of wealth and income, have not kept up with the economic success of the nation. The EPRDF's ethnically defined state, tight grip on power, and worries about ethnic group violence and the ensuing political instability are making the public more and more irate (International Crises Group, 2009; addisstandard.com, 2017).

Ethiopia, which ranked 174th out of 188 countries in the UNDP Human Development Index in 2015, is likewise still at the bottom (UNDP, 2017). The Mo Ibrahim Foundation's IAG, which evaluates governance throughout the continent based on four pillars—human development, participation and human rights, safety and rule of law, and sustainable economic opportunity—ranks Ethiopia 35th out of 54 African nations. Ethiopia dropped to 46.5 in 2018, just below 50%, from 41st out of 54 in 2016. This was a very slight improvement.

2.1.2. Institution and its Role in Economic Growth

Institutions are the constraints, formal and informal, that humans have created to organize and establish order and lessen uncertainty in exchange during social, political, and economic interactions (North, 1991; Lin & Nugent, 1995), partly by assisting them in developing predictions about what other individuals will do (Lin & Nugent, 1995). Institutions are structures that are most important in the realm of society (Hodgson, 2006). Institutions are frameworks of widely accepted social norms that govern social relationships (knight, 1992 cited in Hodgson, 2006). However, these definitions of institution do not have universal acceptance (Jütting, 2003). Another scholar Williamson (2000) cited in Jütting (2003) defines institutions as organizational entities, procedural devices, and regulatory frameworks.

Six indicators are used by the World Bank (2009) to determine institutional quality. Voice and Accountability: The ability of citizens to freely express themselves, form associations, and use the media. Political Stability and Violence Abatement: Propensity for illegal or violent acts, like terrorism, to topple the government. Government Effectiveness: The standard of public service, the independence of the civil service, and the quality of policy formation. Regulatory Quality: The capacity of the government to enact laws and policies that promote the growth of the private sector. The Rule of Law, the fifth element of institutional quality, addresses several topics including the degree of adherence to societal norms, interpersonal trust, the ability to punish offenders, and the efficiency of the legal system in handling violent crimes. The final element consists of elites and private interests "capturing" the state and using public authority for personal benefit. This includes both small-scale and large-scale corruption. Political rights (PR) and civil liberties ratings (CL) are two major subgroups that are included in the measurement of institutional quality. Subgroups of the political right include the election procedure, participation level, political pluralism, and how the government operates. The freedom of expression and religion, the ability to join and quit organizations already in place, the rule of law, the preservation of individual rights, and personal independence are all included in the category of civil liberties. Both were scored between 1 and 7 (Freedom House, 2023).

Though neoclassical economists overlooked the role of institutions in enhancing economic growth, economists following them stress the essentiality of institutions in enhancing economic growth, particularly inclusive growth. Rule of law and secure property rights, the main component of institutional quality, create a difference in the economic performance of countries (Smith, 1776). Good institution improves the efficiency of income distribution creates motivation and economic opportunities, and enhances economic growth (Wolf, 1955). According to North (1987), the primary cause of economic growth and in turn development is the development of institutions. Political distortion creates an income gap across countries (Ugur, 2010). Williamson (2000) developed the hierarchy of social analysis and he points out that the evolution of institutional quality and its role in the economy depends on the rate of change of this hierarchy.

Institutional quality affects growth and development through four main channels. The first channel is trust: in a society with higher trust it is easy to implement secure property rights and lower transaction costs and technology can be introduced easily fostering output and in turn improving development (Knack & Keefer, 1995; Opper, 2008). The second channel is productivity: a good institution creates incentives among economic actors and improves the

efficiency of resource allocation towards productive assets and it increases production, a necessary condition for development (Yildirim & Gokalp, 2016). The third channel is that good institutional quality is essential for the emergence of the market which would enable both players advantageous in business and it can lead to growth (Ugur, 2010). The last channel is through coordinating fiscal policy and cooperation in line with the aim of development policy (Ugur, 2010).

2.1.3. Fiscal Policy And Its Role In Economic Growth

Since Keynes (1936), the role of fiscal policy in economic growth has been heavily stressed, especially in the aftermath of the Great Depression. Easterly and Rebero (1995) elaborated Keynesian demand-side paradigm that development is always stimulated by productive investment and the provision of public goods and services, which revive aggregate demand and reduce unemployment. According to supply-side economics, fiscal leverage can be used to increase aggregate supply (Masca et al., 2015). An alternative perspective contends that economic productivity is impeded by government inefficiencies and bureaucracy. Consequently, growth processes are suppressed by government fiscal policy, which results in tax distortion and wasteful investment spending.

The literature of today focuses on the effects of fiscal policy, primarily attempting to address the question of whether, in the absence of a perfect capital market, there is a trade-off between growth and distribution (Benabou, 2000). According to Garcia et al. (2007), fiscal policy influences how wealth is distributed even in a perfect market for capital if the supply of labor is endogenous and agents possess distinct initial capital endowments. More precisely, growth-oriented fiscal policy boosts income inequality while enhancing welfare equality, while labor-supply-oriented fiscal policy raises the return on capital and increases income inequality. This simply emphasizes how important it is to consider both effects. Since some nations have higher per capita incomes but lower or higher levels of inclusivity as indicated by differences in income distribution, there is no easy trade-off between growth and equality (Anand et al., 2013). Additionally, they claim that there is unexplored research linking fiscal consolidation and inclusive growth.

The concept of inclusive growth is associated with the theoretical framework of social welfare models, which highlight the critical role that government budgetary allocation plays in promoting the economic and social well-being of individuals. This is achieved through prioritizing equal access to opportunities, equity, and efficient distribution of wealth as a means

of rescuing the poor (Blau, 1989). The Solow neoclassical growth theory further contends that taxes and government investment spending have a transitory effect on output level. However, the endogenous growth theory (Barro, 1990) makes a case for both the short-term and long-term effects of infrastructure spending on growth. According to this theory, capital spending that is funded by the government can increase total factor productivity by lowering factor costs or increasing the number of profitable investment opportunities. Additionally, when public investment spending crowds out private-sector output and is paid by growth-reducing taxes, it may impede growth. While explicit in the literature, theoretical viewpoints on government size, public debt, and growth are supported by varying amounts of data. While Afonso and Jalles (2011) confirm a negative relationship, Whajah et al. (2019) propose a direct relationship between government size and growth.

The U-shaped hypothesis proposed by Arney (1995) and supported by Asimakopoulos and Karavias (2016) holds that government size below a certain optimal point reflects negative effects beyond which a positive influence on growth is evident. Furthermore, the findings of Whajah et al. (2019) about the negative association between public debt and inclusive growth stand contrary to the Keynesian premise, which contends that deficit spending and debt are essential for economic progress. Reinhart et al. (2012) provide the debt overhang theory, which contends that debt above a particular threshold foretells a negative net return since its marginal cost exceeds its marginal revenue. However, given the fundamental admixtures in the literature, further research is required to provide a solid foundation on the relationship between fiscal metrics and inclusive growth.

2.2. Empirical Literature

2.2.1. Institution And Inclusive Growth

Nowadays, the vital role of institutions in development has received a lot of focus. Although a large body of research indicates a positive link between development and institutional quality, methodological and conceptual problems limit the evidence of causality (Jütting, 2003). The author also emphasized the importance of considering the difference between endogenous and exogenous institutions when examining how they affect development results. The literature from the early 1990s used variables like civil liberties and political violence as a measure of institutions, while more recently, the literature has focused on measures that quantify institutional quality by referring to issues like the strength of the rule of law, degree of corruption, risk of expropriation, and quality of bureaucracy. According to Pande & Udry

(2005), institutional quality is a causative factor in perpetuating the poor countries and people to stay poor. However, it requires the channels in which the institution affects growth.

The speed and quality of institutional reform have significantly contributed to the process of transition from a socialist to a market economy and in turn positive impact on economic growth (Redek & Sušjan, 2005). Kumah & Sandy's (2013) study on sub-Saharan Africa revealed that economic institution matters for inclusive growth, and deriving inclusiveness from GDP growth requires sector-specific policies, which is essential for fragile states like Sierra Leone. Findings on selected Asian developing countries conducted by Sabir & Qamar (2019) show that institutional quality has a positive significant effect on inclusive growth, particularly fiscal policy is more effective with better institutional quality. According to Powelson (2000), economic decline is primarily a problem of institutional, which is gradually created in the power-diffusion process in that it is the ability to influence or direct the behavior of others, failure. Munir et.al., (2022) examined the current state of inclusive growth, measured using per-capita income and income distribution held at 20%, and institutional quality measured using six indicators of World Bank (2009) in 86 countries.

2.2.2. Fiscal Policy And Inclusive Growth

Whajah et al. (2019) use the Asian Development Bank (ADB) and McKinley (2010) inclusive growth indexes to illustrate how public debt (negative) and government size (positive) affect inclusive growth. Fiscal policy has a positive significant effect on inclusive growth, particularly fiscal policy is more effective with better institutional quality (Sabir & Qamar, 2019). Alekhina & Ganelli (2023) examined determinants of inclusive growth in ASEAN countries for a period spanning from 1992 to 2017 and they employed a cross-country panel regression model. The dependent variable, inclusive growth index, is computed from income per capita growth and equity index which is first used by Anand et.al. (2013). The main independent variable used in their regression is fiscal redistribution measured by the difference between market Gini and net (after tax) Gini. The results showed that fiscal redistribution significantly affects inclusive growth in terms of both equity growth and per capita income.

Using provincial data Rini & Tambunan (2021) evaluated the performance of inclusive growth in Indonesia and its determinant factors for 34 provinces in a period from 2016 to 2018. They employed linear fixed effect panel regression and inclusive growth is measured based on three perspectives. These are growth-reducing unemployment, poverty, and inequality. The results show that inclusiveness is different across provinces and access to technology and energy has

a positive effect on inclusive growth. By applying a similar inclusive growth measure Hidayat et.al.(2020) conducted a study on the determinants of inclusive growth in Yogyakarta. They used panel data from 2011 to 2017 and they employed two two-stage least square (2SLS) methods the result revealed that household consumption, export, both foreign and domestic investment, and per capita income, while import has a negative impact. however, these studies did not include a fiscal policy in their estimation.

Adeosun et.al. (2020) examined the link between public investment-led fiscal policy and inclusive growth for the big five nations (Morocco, Algeria, South Africa, Nigeria, and Egypt). The study employs non-linear autoregressive distributed lag, asymmetric impulse responses, and variance decomposition techniques to analyze time-varying structures and nonlinearities in government investment series. The findings indicate that positive investment shocks contribute to inclusive growth by creating job opportunities and productive employment, particularly observed in Morocco and Algeria. Short-term results generally align with long-term findings, except for South Africa, where short-term positive investment shocks foster inclusive growth despite long-term differences.

Fiscal policy is a powerful tool for promoting inclusiveness by addressing efficiency and macroeconomic stabilization while considering equity implications. Changes in taxes, spending levels, deficit size, and financing modalities can impact inclusiveness. Progressive income tax structures and targeted transfers, both in cash and in-kind, can reduce pre-tax income inequality. Long-term investments in education and health contribute to inequality reduction by enhancing skills and opportunities for social mobility. However, caution is needed in financing large deficits, as central bank financing may lead to an inflation tax, potentially affecting the poor who hold more savings in cash (Davoodi et.al.,2021).

Fiscal policy reduces income inequality in industrialized economies by approximately 33% on average. Two-thirds of this reduction comes from public transfers, and the remaining third comes from progressive taxes. Because of lower taxes and spending, developing and rising economies have weaker distributive potential. Fiscal redistribution lowers income inequality in Latin America by about 10%. Tax hikes are not the only way that fiscal policy affects income inequality; tax cuts, which are favoured for efficiency purposes, can also spur growth (Clements et al., 2015).

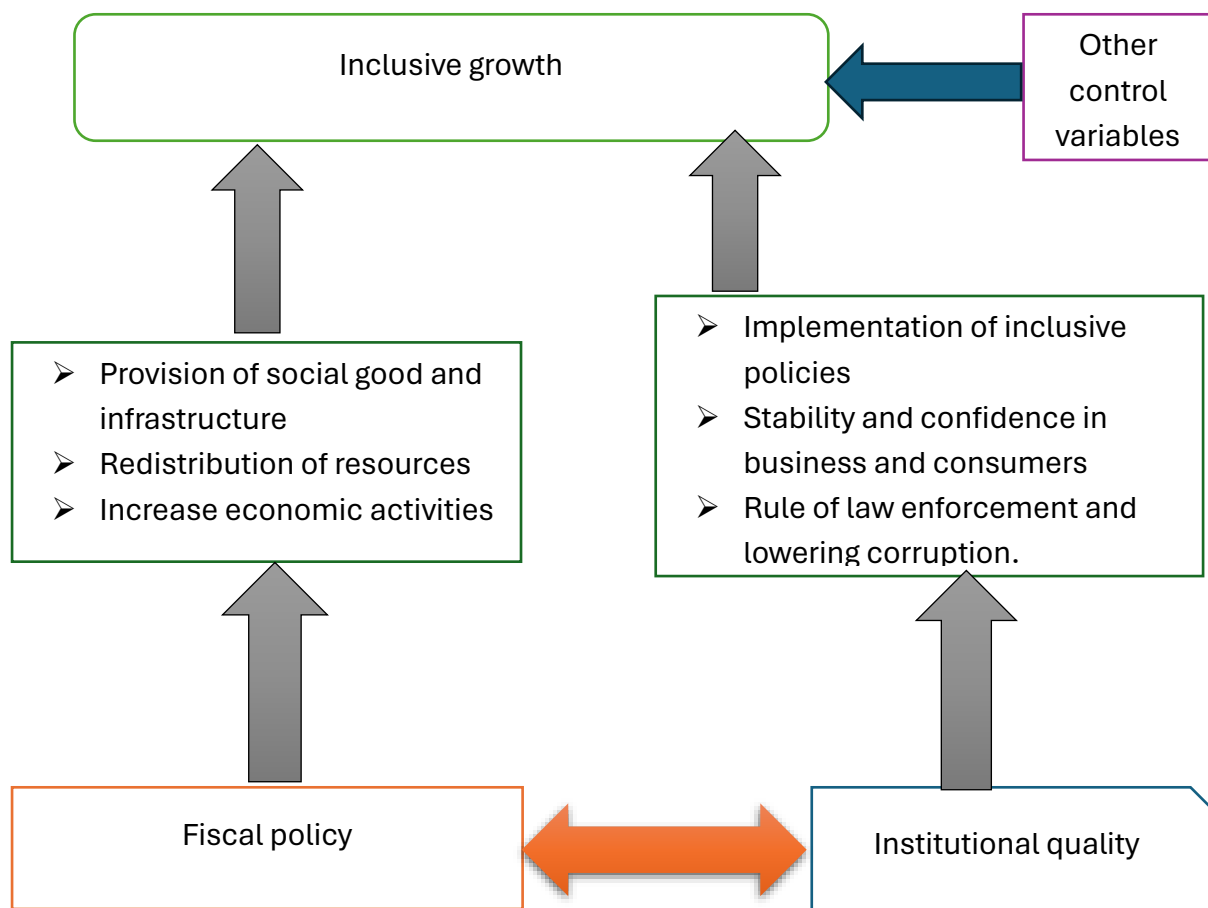
A study of 18 OECD countries from 1965-2015, using the difference-in-difference econometric technique, found that significant tax cuts for the rich increased income inequality. This was

particularly evident in the top 1 percent's share of pre-tax national income, highlighting the impact of tax policies on wealth distribution. This effect persists in the medium term. However, these tax cuts do not show any significant impact on economic growth or unemployment. The study emphasizes that the overall impact of fiscal policy on inclusiveness depends on the combined effects of both tax and expenditure policies. If progressive taxes finance pro-poor public expenditures, fiscal policy can contribute to reducing disposable income inequality compared to market incomes (Hope and Limberg, 2020).

2.3. Conceptual framework

Based on the review of empirical and theoretical literature the following chart is developed indicating the channels through which institutional quality, fiscal policy, and other control variables affect the performance of inclusive growth.

Figure 1: conceptual framework



Source: Batool & Bhatti (2021) for Fiscal policy and author's construction for inst. Quality

3. Data and Methodology of the study

Introduction

In this section description of the study area, the source of data and its measurement, the methods used to compile the index of inclusive growth and institutional quality, and descriptive statistics of variables used to compute the indices are presented.

3.1. Research approach and design

As per Kothari (2004), scientific research can be conducted using three different approaches namely qualitative, quantitative, and mixed approach. Qualitative research does not involve numerical data while quantitative research involves testing the impact of variables expressed in numerical form. For this study quantitative approach was used. This approach is used to test objective theories by studying the relationship between variables that can be measured using instruments and analysed using statistical techniques (Creswell, 2017). To analyse quantitative data this study employed descriptive statistical tools (Cruse,2003).

3.2. Type of data

In this study, secondary data for six African countries namely Botswana, Ethiopia, Ghana, Mauritius, Namibia, and South Africa for 32 years spanning from 1991 to 2022 was used.

3.3. Source of Data

3.3.1. Source of data for Inclusive growth index

This study examined the effectiveness of institutional quality and fiscal policy on inclusive growth. Inclusive growth in this study is used as an index composed of nine indicators based on Dörffel & Schuhmann (2022). These variables include income inequality measured by the Gini index of inequality in equivalized (square root scale) household market (pre-tax, pre-transfer) income, using Luxembourg Income Study data as the standard collected from Standardized World Income Inequality Database (SWIID). The index ranges from 0 to 1 with 0 representing perfect income equality and 1 indicating perfect income inequality. The second variable used to form the index is dependency ratio which is measured as the ratio of dependents aged under 15 and older than 64 to the working age population aged between 15 to 64. This data is collected from the World Development Indicator (WDI) database. The third variable is the employment ratio measured by the ratio of the population employed aged above 15 years old to the total population collected from WDI in modelled ILO estimates.

The fourth variable is the Human capital index based on years of schooling and returns to education collected from the Penn World Table (Feenstra et.al., 2015). The fifth variable is life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout his/her life. The sixth variable is natural resource depletion as a percentage of gross national income. Natural resource depletion is the sum of net forest depletion, energy depletion, and mineral depletion collected from WDI. The seventh variable is the value of output per worker measured GDP in constant 2015 US\$ modeled ILO estimation annually and collected from international labor organizations. The eighth variable is GDP per capita measured in local currency collected from WDI. The last variable is the carbon intensity of GDP measured by the CO2 emission per 1 local currency GDP collected from WDI.

From the above variables mentioned Gini index, age dependency, natural resource depletion, and carbon intensity of GDP, high values adversely affect inclusive development. Therefore, using the same scaling, the reciprocal of the values of these variables was used so that for all variable higher value of each variable represents positive inclusive growth.

The table in Annex xxx provides a comparative analysis of key indicators utilized in calculating the inclusive growth index across several nations. Despite experiencing robust GDP growth, Ethiopia exhibits lower productivity levels, particularly in terms of output per worker, when compared to similarly developing nations such as Botswana and South Africa. Moreover, Ethiopia grapples with a higher dependency ratio. However, it excels in employment ratio, boasting an average employment rate of 78% of its labor force. Nevertheless, Ethiopia struggles with human capital development, reporting the lowest human capital index among the countries examined. In terms of life expectancy, Ethiopia records the lowest average at 56.4 years, with Mauritius topping the list at 72.4 years. Despite lower GDP per capita income, Ethiopia demonstrates higher growth rates in this aspect compared to other nations. Ethiopia exhibits the lowest performance across all metrics analysed in the table, despite notable strengths in employment rate and income inequality.

Table 1: Summary statistics (Mean) of inclusive growth indicator variables by country

	OPW	DR	ER	HC	LE	RD	GINI	GDPPC	GDPPC.G
Botswana	17507.9	68.68	48.56	2.59	57.95	1.51	61.91	12494	1.801
Ethiopia	993.4197	91.949	77.989	1.234	56.388	17.654	34.955	1209.714	3.764
Ghana	3308.613	79.147	68.402	2.219	60.243	10.241	44.064	3619.109	2.778
Mauritius	16885.4	44.78	53.82	2.39	72.42	3.96	39.68	15588.44	3.307
Namibia	13811.5	74.21	44.75	2.11	57.19	1.283	66.63	8290.444	1.482

South Africa	17263.5	59.3	46.34	2.37	60.54	2.68	69.95	12136.36	.849
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Source: Author's computation using Stata 14, 2024.

3.3.2. Source of data for Institutional quality index

The study assesses institutional quality using the Worldwide Governance Indicators (WGI), covering dimensions like Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. WGI provides scores ranging from 0 to 100 and estimation values from -2.5 to 2.5. Ethiopia consistently scores lowest across all indicators, averaging -1.47 for political stability, -1.2 for voice and accountability, -0.8 for governance effectiveness, -1.04 for regulatory quality, -0.69 for rule of law, and -0.61 for control of corruption. Conversely, Mauritius generally outperforms, except in control of corruption where Botswana fares better. The study utilizes estimation values to track changes in institutional quality over time.

Table 2: Summary statistics of institutional quality indicator variables by country

	polistab	Voicacc	goveff	reguqual	ruleoflaw	contrcorrup
Botswana	1.027	.548	0.443	.675	.53	.87
Ethiopia	-1.473	-1.198	-0.719	-1.044	-.685	-.614
Ghana	-.002	-1.036	-0.150	-.13	-.014	-.147
Mauritius	.907	.835	0.795	.771	.885	.294
Namibia	.695	.441	0.200	.17	.261	.347
South Africa	-.188	.67	0.324	.4	.037	.152

Source: author's computation from WGI data using Stata 14, 2024.

3.4. Method of calculation of institutional quality and inclusive growth index

To compute the index of inclusive growth and institutional quality principal component analysis was used. When applying PCA, those components with an eigenvalue greater than or equal to 1 were used if the total proportion of variance for those components having an eigenvalue of 1 and greater is 80% and above unless the next component with an eigenvalue greater than 0.8 was used. Using min-max strategy the index is normalized to the range of 0 (lowest growth or quality) to 1 (highest growth or quality).

To separate a time series into a trend component and a cyclical component the HP (Hodrick-Prescott) filter was used (Hodrick & Prescott, 1997). When examining economic data, it is especially helpful in differentiating between longer-term trends and shorter-term changes. The trade-off between tightly fitting the data (minimizing deviations) and maintaining a smooth

trend (minimizing curvature) is managed by the parameter λ . Smoother trends are associated with higher values of λ , and vice versa. The selection of λ is an important decision that is contingent upon the particular characteristics of the data. For this study λ value of 100, recommended for annual data, was used.

3.5. Method of Analysis

In this paper both econometrics regression technique and descriptive statistics were used. Descriptive statistics is a method of quantitatively describing the main features of the collected data. Descriptive analysis is conducted to understand the behaviour and interaction of inclusive growth (dependent variable) and its determinants including fiscal policy and institutional quality with the aid of simple graphs and the mean of variables used in the study are presented. OLS regression technique was employed to identify the sign and magnitude of institutional quality and fiscal policy on inclusive growth.

3.6. Model specification

This study follows Aslam et.al.(2020 study on the impact of institutional quality on inclusive growth; Mamman et. al.(2023) on inclusive growth in Africa Do fiscal measures matter; Katuka et.al.(2023) on fiscal space, governance quality, and inclusive growth and Metu et.al (2019) impact of fiscal policy. Therefore, the general model is specified as follows:

$$IG = f(IQ, G, T, E, PS, CL, GDPPCG, FDI, FD) \quad (1)$$

Where IG is inclusive growth, IQ is institutional quality, G is government expenditure, T is government tax revenue, E is election, PS is political system, CL is change in leader, GDPPCG is GDP per capita growth, FDI is foreign direct investment, and FD is financial development.

This study employed two regressions. The first regression is concerned with time series regression which takes only Ethiopia and is specified as follows.

$$IG_t = \beta_0 + \beta_1 IQ_t + \beta_2 G_t + \beta_3 T_t + \beta_4 E_t + \beta_5 PS_t + \beta_6 CL_t + \beta_7 GDPPCG_t + \beta_8 FDI_t + \beta_9 FD_t + \varepsilon_t \quad (2)$$

The second regression is panel regression of the random effect GLS regression model, which assumes that the unobserved effect α_i is uncorrelated with each explanatory variable but allows it to be included in the regression, employed for those five countries selected as a comparison sample with Ethiopia.

$$IG_{it} = \beta_0 + \beta_1 IQ_{it} + \beta_2 G_{it} + \beta_3 T_{it} + \beta_4 E_{it} + \beta_5 PS_{it} + \beta_6 CL_{it} + \beta_7 GDPPCG_{it} + \beta_8 FDI_{it} + \beta_9 FD_{it} + \alpha_i + \varepsilon_{it} \quad (3)$$

3.7. Description of variables and hypothesis

Change in a leader: To control for non-randomness of change in a leader Johnes and Olken (2005) used a change in leader variable when the incumbent leader died regardless of the cause of the death and without specifying the sign of the change they found that change in leader systematically affects growth, particularly for the autocratic system. However, other literature by Marx (1852) revealed that even though the leader is changed, the individual leader has less freedom to act and execute any political and economic decision than they think. Later in 1999 Gemmill and Oakley (1999) pointed out that powerful leaders embraced to fulfill individual needs. Carlyle (1859) supports Gemmill and Oakley's idea and complements the significant impact of individual leaders on the decision-making process of one country especially in military outcomes. In the Ethiopian context, the prime minister is the head of the defense force, which in line with Carlyle's (1859) idea, enables the leader to do whatever he/she wants to do even by force. the change in a leader would happen in the form of an election, coup/war, death, and voluntary. So, to account for these changes this study used change in leader as a categorical variable. The variable will take 1 if a change leader takes place due to death, 2 by-election, 3 by coup or war, and 4 if it is by voluntary resignation of the incumbent leader. However, the sign of the effect on inclusive growth depends on the leadership quality, whether he/she is an ethnic favourist, or altruistic level to fairly distribute the country's resources equally. Given this fact in Ethiopia mostly the leaders were considered as ethnic favourites accompanied by dictatorship. Therefore it is expected that a change in leader could harm inclusive growth. for the other countries, it is not priori-determined.

Political system/regime: a political system is categorized into three types. These are constitutional assemblies which South Africa and Namibia used for a few years, presidential and parliamentary systems. However, in the literature, the first type of political system is not well discussed. McManus & Ozkan's study in 2018 shows that the parliamentary system is better than the presidential for higher output growth and lowering income inequality, and the income inequality difference between the two political systems ranges from 12 to 24%. This research finding is similar to Persson and Tabellini (2003) and Bormann & Golder (2013) confirming the parliamentary system is favourable for inclusive growth. On the other hand, according to Mainwaring and Shugart (1997) under the parliamentary system, coalition formation lowers the direct link between the choice made at the ballot box and the electoral

outcomes advocating the presidential system for better inclusive growth. The presidential system gives more rights in decision-making, which could be against some groups of the society due to ethnic conflict. In this study, this variable is measured as a categorical variable in which it takes 1 for constitutional assembly, 2 for parliamentary, and 3 for presidential. Therefore, in developing countries with conflict in ethnicity, it is hypothesized that the parliamentary system could bring more inclusive growth than the presidential system.

Election: According to Cox and McCubbins 1986, Lindbeck and Weibull 1987 and Dixit and Londregan (1996) a leader would want to stay in power for a long time and due to this he/she could transfer resources to all groups of the society to get total support. During the election, these motives could probably happened. In this study, election is used as a dummy variable which takes a value of 1 if the specific year is a period of election and 0 otherwise. The difficulty is although there is no well-defined period, election campaigning is made before the period of election. To include this time gap, at least to some extent, this variable assigned 1 for a year of the election and one year preceding the election. Therefore, it is hypothesized that elections could have a positive impact on inclusive growth.

Institutional quality: Most of the researchers measured institutional quality based on the six world bank governance indicators. Some authors used the six indicators individually, but some other authors computed an index from these indicators and used one single institutional quality measure. Munir et.al (2022) research findings revealed that the impact of institutional quality on inclusive growth depends on the income level of a country. For instance, inclusive growth of low-income economies can be achieved through increasing overall opportunities, while for middle and high-income countries it can be achieved by enhancing equity prospects. By taking Asian developing countries as a case study Sabir & Qamar (2019) found a positive and statistically significant relationship between the two variables. Poor institutional quality causes larger income inequality and lower economic growth (IMF, 2018; Ugur, 2014). The resulting poor growth and inclusiveness can, in turn, lead to an increased incidence of corruption, creating a negative feedback loop that can become self-fulfilling and long-lasting (IMF, 2016). Therefore, it is hypothesized that there could be a positive relationship between inclusive growth and institutional quality.

Tax revenue: Tax revenue is one of the most practiced fiscal policies that has a redistribution effect of resources. Many studies were conducted to examine the relationship between tax revenue and inclusive growth and some of the studies reviewed in this study revealed the

following arguments. According to Ofoegbu et al. (2016), tax revenue has a positive and statistically significant effect on inclusive growth. Another study revealed that tax revenue enhances equality of income distribution and economic stabilization. Hence, the main aim of tax collection is to finance government expenditure on infrastructure and welfare services which are essential for inclusive growth (Okpe, 2000). Tax revenue helps to generate employment opportunities, improve income distribution, and stabilize the price level (Musgrave and Musgrave, 2004; Onoh, 2013). The overall impact of fiscal policy on inclusiveness depends on the combined effects of both tax and expenditure policies (Hope and Limberg, 2020). Thus, a moderate level of taxation helps developing economies reduce the debt burden and encourages economic inclusiveness. However, in Ethiopia, there is a high degree of tax evasion and avoidance, which causes the government to collect lower tax revenue from businessmen and high-income earners while employees or salary and wage earners pay a large share of their income which leads to an increase in income inequality, lack of access to different opportunities which negatively affects inclusive growth in Ethiopia. On the other hand, in the other five countries used in this study, there could be a positive significant relationship because they collect higher tax revenue as compared to Ethiopia.

Government expenditure: public expenditure policy affects inclusive growth, particularly poverty and income inequality. In the short run through social expenditure, which provides a minimum income level for the poor and increases access to valuable services, and in the long run through improving human capital among the disadvantaged groups (Zouhar et.al., 2021). However, if the consumption tax is higher the poor become net payers of the fiscal system and negatively affect inclusive growth (Lustig, 2018). Budget institutions are important for the cost-effectiveness and inclusiveness of public spending (Zouhar et.al., 2021). Chu and Hemming (1991) explain that the composition of expenditure matters and productive expenditures are always growth-inducing. Inclusiveness of the economy increases at initial levels of government expenditure whereas at higher levels it shows a negative relationship (Batool & Bhatti, 2021). Public expenditure policy is shaped by the availability of fiscal space and the ability of the government to generate revenue (Zouhar et.al., 2021). In developing countries, inclusive growth public expenditure can be achieved by focusing on the extension of social safety nets improving basic access to public services, reducing spending on non-productive activities, and improving tax mobilization to preserve fiscal space sustainability (Clements et.al., 2015). In developing countries like Ethiopia since tax mobilization is weak causing budget deficit and negative current account balance expenditure would be made by

borrowing which increases the debt burden. In addition, a large share of expenditure in Ethiopia in particular, and developing countries in general is on current expenditure which higher share of unproductive expenditure like defense/military expenditure. Therefore, it is hypothesized that government expenditure could have a positive but statistically insignificant effect on inclusive growth.

GDPPCG: Since some nations have higher per capita incomes but lower or higher levels of inclusivity as indicated by differences in income distribution, there is no easy trade-off between growth and equality (Anand et al., 2013). Income growth alone tells us nothing about the distribution of growth dividends among different classes of society (OECD, 2014). OECD's argument is supported by Adedeji et.al., (2013) in that Growth on its own does not ensure that everyone would gain; it has the potential to exacerbate the income gap and exclude the very poor. Kumah & Sandy's (2013) study on sub-Saharan Africa revealed deriving inclusiveness from GDP growth requires sector-specific policies, which is essential for fragile states. Given these facts, in countries with low institutional quality and lower social contribution expenditure, it is expected that GDP per capita could have either a positive or negative effect on inclusive growth.

FDI: Foreign direct investment will have either a negative or positive impact on inclusive growth depending on the absorptive capacity FDI inflow by the government (Nunnenkamp et.al., 2007; Tamar et. al., 2020). Besides, the impact of foreign direct investment on inclusive growth heavily relies on the host country's institutional quality (Munir & Fatima, 2020). FDI-led growth is usually more evident in low and middle-income countries whereas, in high-income economies, FDI tends to slow down the economic growth or have no long-term effect (Hayat, 2019). FDI has a favourable impact on average income but a considerable negative impact on equity indices. Nonetheless, how these conflicting effects are balanced will determine the overall influence on inclusive growth. This implies that FDI may worsen resource inequality if its advantages aren't available to all facets of society. According to a 2018 study by Ngwakwe and Dzomonda, higher FDI levels in South Africa expanded income inequality. FDI was unable to improve equity across a range of institutional clusters, especially in nations with weak institutions. Therefore, in Ethiopia despite a low level of institutional quality FDI creates employment opportunities for the poor though there is exploitation and under-employment of labor, which enables the poor at least to fulfill their basic need and access public services. Hence, it is hypothesized that there could be a positive significant relationship

between FDI and inclusive growth in Ethiopia. On the other hand, FDI in other countries used in this study focuses on the extraction of natural resources particularly non-renewable resources which affects future generation growth accounting, and Mampassi et.al.(2021) found a negative short-run impact on the diversification of the economy and positive effect with no statistical significance in the long run. Other studies by Fabrice (2017) found a short-run negative impact of FDI on employment. In the long run, it has a positive but statistically insignificant effect. Therefore, it is expected negative relationship between FDI and inclusive growth.

Domestic credit: domestic credit as a percentage of GDP which is used as a measure of financial development could have a positive significant effect on inclusive growth through an increase in investment, employment, and infrastructure development. Therefore, it is expected to have a positive significant effect on inclusive growth.

4. Results and Discussions

Introduction

In this chapter summary statistics of inclusive growth, institutional quality, and fiscal policy instruments, the evolution of these variables over time, and their relationships are presented using graph and mean measure of central tendency.

4.1. Summary Statistics of Variables

Table 3 summarizes the mean values of variables in the study. Ethiopia's average inclusive growth between 1991 and 2022 was 0.15, lower than five comparable countries. Notably, Mauritius and South Africa showed the highest inclusive growth. However, Ethiopia experienced a higher average per capita income growth rate (5.13%) from 1996 to 2015 compared to these nations. In multidimensional inclusive development (1993-2018), Ethiopia ranked 107th, surpassing Botswana, South Africa, and Namibia but lagging behind Mauritius and Ghana (Dörffel & Schuhmann, 2022). Despite initially lower inclusive growth, Ethiopia improved annually by 11.4%, compared to Ghana's 3.2%. This suggests disparities in wealth distribution during economic expansion, emphasizing that higher per capita growth doesn't guarantee improved inclusive growth.

Ethiopia's average institutional quality scores poorly at 0.09, below other countries. Despite this, Ethiopia has shown significant improvement, with a 123% average increase since 1991, surpassing nations with slower growth. This suggests Ethiopia has the potential for further governance enhancement in the future.

Ethiopia's tax revenue as a percentage of GDP (10%) slightly exceeds Ghana's (9.24%) but lags behind leading performers like Botswana, Mauritius, Namibia, and South Africa. Conversely, Ethiopia's central government expenditure as a percentage of GDP (18.93%) is higher than other countries' average except Namibia and South Africa. Overall, while Ghana and Ethiopia exhibit comparable inclusive growth and institutional quality, they trail in tax revenue collection efficiency. Other nations generally outperform them in this regard, suggesting opportunities for improvement to match their counterparts' performance.

Table 3: summary statistics (mean) of variables.

Variables (Mean)	Countries					
	Botswana	Ethiopia	Ghana	Mauritius	Namibia	South Africa
Inclusive growth	0.424	0.153	0.228	0.82	0.323	0.438
Δ Inclusive growth	2.1	11.4	3.2	1.4	0.3	1.5
Institutional quality	0.829	0.093	0.421	0.852	0.665	0.611
Δ institutional quality	0.002	1.23	0.015	0.007	0.007	0.003
Tax revenue %GDP	23.398	9.990039	9.236	16.822	28.259	23.961
Gov.t exp %GDP	28.132	18.92585	9.956	14.285	24.239	17.899

Source: author's computation using Stata 14, 2024

4.2. Evolution of inclusive growth

Figure 2 depicts the evolution of inclusive growth, crucial for economic progress benefiting all. Ethiopian inclusive growth remained minimal until 2004, steadily rising thereafter to 0.38 by 2022. While in Ghana it shows a similar trend, less impacted by COVID-19. Namibia's inclusive growth fluctuated, declining to 0.214 by 2001, then peaking at 0.42 by 2017, dropping due to the pandemic but slightly recovering in 2022. Botswana's growth, starting at 0.3 in 1991, surged to 0.46 by 2008, then fluctuated, impacted by global crises and COVID-19. South Africa also faces inequality challenges, focusing on inclusive growth strategies for sustainable employment and economic participation. Mauritius exhibited consistently high performance, despite setbacks during the pandemic. Ethiopia's inclusive growth trailed other comparable nations, except Ghana. To enhance inclusivity, Botswana initiated NDP11¹, emphasizing innovation and education. Comprehensive strategies are needed for real inclusion and economic empowerment in South Africa. Overall, while Ethiopia lags in inclusive growth, its trajectory shows improvement, aligning with Ghana's, amidst varied challenges.

From 1991 to 2000 inclusive growth in Ethiopia is low and its slope is flat indicating lower growth. This is because from 1991 to 1995 the leader was temporarily assigned as president for the transitional government. While from 1995 to 2000 it shows little improvement. According to the Economic Commission for Africa (hereafter ECA) Ethiopia adopted Sustainable Development and Poverty Reduction Program (SDPRP) for five years from 2000 to 2005 targeting the poor and marginalized population. The implementation of this policy resulted in an increase in spending on pro-poor from 28% of the 2000/01 budget to 57% in

¹ National Development Plan 11

2004/05 (UNECA, 2015). Following SDPRP in 2006 Plane for Accelerated and Sustained Development to End Poverty 2006-2010 (PASDEP) was implemented to achieve millennium development goals and the project has eight major pillars. Some of these are building an all-inclusive implementation capacity, a massive push to accelerate growth, creating a balance between population growth and economic development, and human resource and infrastructure development. These are essential for inclusiveness of growth and they increase rural electrification by 50% points compared to the previous level of electrification (Ibid).

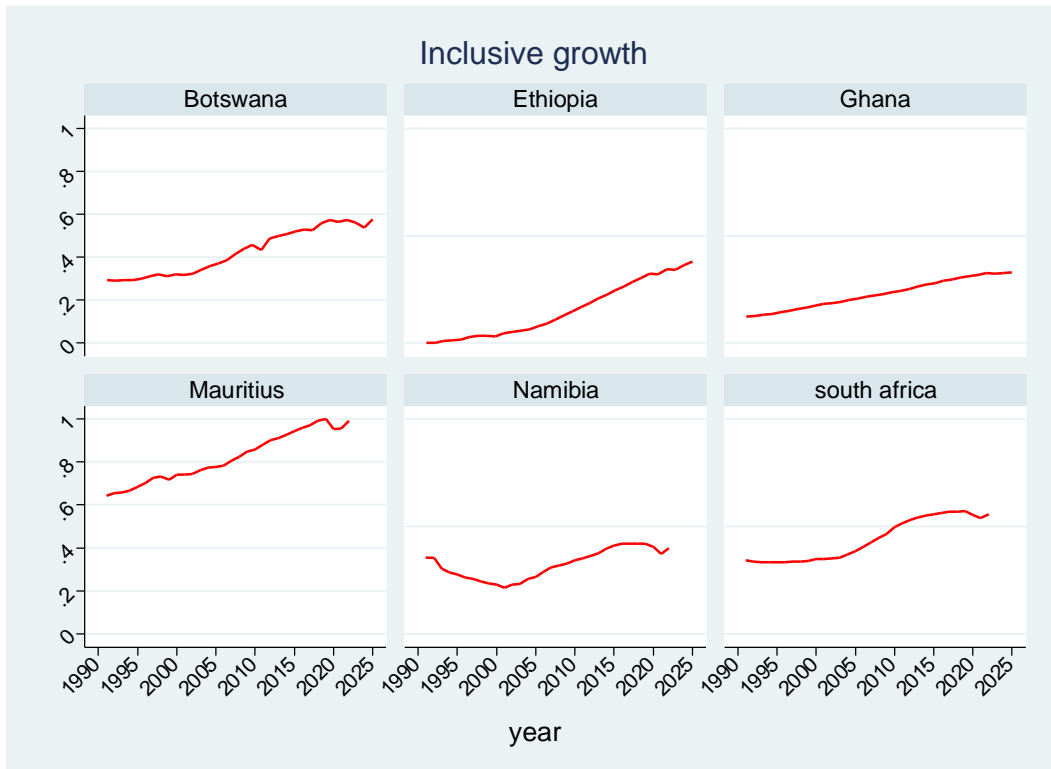
The major challenges of implementing this five-year project were inflationary pressure delaying the rainy season in some regions of the country, and low domestic revenue mobilization and investment (MoFED, 2010). By drawing lessons from the challenges faced during the Implementation of PASDEP the government of Ethiopia implemented phase one of Growth and Transformation Plan I (GTP I) from 2011 to 2015 (MoFED, 2010) and GTP II from 2016 to 2020 National planning commission (NPE, 2016). These projects enable inclusive growth to increase smoothly but in 2017 it showed a small decrease/constant relative to 2016 inclusive growth due to political instability in 2018 the political instability was calmed down and inclusive growth showed increment when prime mister Hailemariam Desalegn resigned from power voluntarily and it decreases/ constant during covid 19 crises.

Between 2000 and 2015, Namibia experienced rapid growth, with an annualized per capita growth rate of 3.1%, surpassing its African counterparts. Poverty rates halved, and the income gap with South Africa decreased by 45%, from 36% in 2000 to 20% in 2015. Household consumption per capita mirrored this growth. The expansion was fuelled by the global commodity super cycle, resulting in favourable trade terms, a mining investment boom, and increased exports. However, by 2015, factors driving growth began to decline. Falling commodity prices, reduced investment, and fiscal consolidation efforts led to a contraction, averaging 2.1% between 2015 and 2019.

The post-apartheid era in South Africa has witnessed persistent challenges of high unemployment, poverty, and inequality, stemming from historically racially discriminatory policies favouring white South Africans. These policies limited economic opportunities for black South Africans through forced removals, biased employment, and education practices. Presently, South Africa contends with deeply ingrained structural complexities along racial lines. The government has initiated comprehensive development strategies, with mixed success, to address these issues. Despite ongoing high poverty and unemployment rates,

improvements in the livelihoods of vulnerable populations have occurred through expanded social grant and service delivery systems.

Figure 2: Evolution of inclusive growth by country



Source: author's computation using Stata 14, 2024.

4.3. Institutional quality and inclusive growth

4.3.1. Evolution of institutional quality

Figure 3 depicts the evolution of institutional quality in each country used in this study. We see that institutional quality in Ethiopia is very low as compared to other countries except Ghana which has similar performance. Ethiopia's institutional failure stems from a longstanding governance crisis characterized by arbitrary control by a small elite over the populace. Historian Bahru Zewde divides Ethiopia's institutional development into three periods: institution building (1941–1974), economic distress (1974–1991), and restructuring with ethnic federalism (1991–present). The pre-1974 era saw significant institutional achievements, including Ethiopian airlines, banks, and universities. However, the political system lacked democratic governance. These institutions, established during this time, continue to form the backbone of Ethiopia's economy and social services, despite governance challenges (Asfaw, 2019).

The Derg military government, ruling from 1974 to 1991 under Mengistu Hailemariam's presidency who was colonel, led Ethiopia astray with misguided political and economic policies, mirroring Soviet totalitarianism. This regime promoted destructive behavior, leading to the depletion of human capital, suppression of civil society, and economic failures akin to North Korea and East Germany's command socialism. The centralized power structure exacerbated social problems and persistent poverty, shaping the nation's current challenges (Asefa, 2003). Contrasting with South Korea's remarkable economic progress, tenfold better than North Korea's, due to differing institutional structures favoring the free market, similar disparities emerged between East and West Germany. East Germany's average income stands at 40% of West Germany's Kasper (1998), illustrating the profound impact of institutional choices on economic outcomes (Economist, February 22, 1997).

After the downfall of the socialist Derg regime Ethiopia was ruled by a transitional government from 1990 to 1995 and the presidential period continued during the transitional government from 1991 to 1994. In 1992, regional elections were held by the transitional government, which introduced ethnically defined regions but also experienced oppression and violence against competing parties, leading to their withdrawal from the elections. The pivotal 1994 constitutional assembly election marked Ethiopia's shift from a presidential to a parliamentary system, ushering in a phase of relative political stability and institutional improvement after years of dictatorship under the Derg regime. However, the lead-up to the 1995 elections was fraught with harassment and politically motivated arrests, negatively affecting governance.

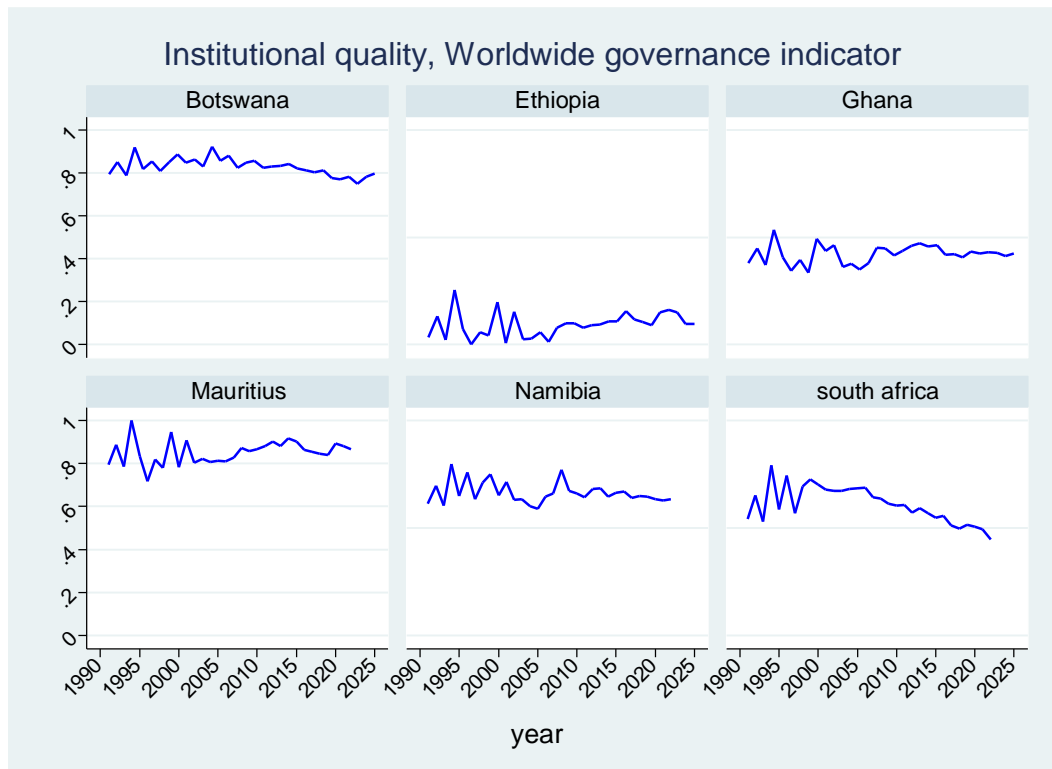
The period surrounding the Ethio-Eritrea war (1998-2000) harmed governance quality in Ethiopia. Despite this, governance quality showed signs of improvement in 1999, possibly driven by the government's efforts to gain public support ahead of the 2000 elections. From 2005 to 2014, institutional quality generally improved, except for a decline in 2009. The 2005 election, while relatively competitive, faced rejection by opposition parties and controversy over results, resulting in the arrest of key opposition leaders in 2007. Subsequently, the ruling party introduced restrictive laws targeting opposition groups, independent media, and civil society, with intensified media control and civil society restrictions in 2009. The 2010 election lacked competitiveness due to previous crises. After the death of Prime Minister Meles in 2012, Hailemariam Desalegn assumed leadership until 2018. However, institutional quality declined in 2015 due to election-related violence and corruption issues Norris (2016), persisting until 2017. In 2018, Prime Minister Hailemariam Desalegn voluntarily resigned from power, marking a historic moment in Ethiopian history. Dr. Abiy Ahmed succeeded him, bringing

hope for peace and democracy to the nation. However, this optimism was short-lived as by the second half of 2019, conflicts and controversies emerged, particularly regarding the scheduled 2020 elections, which were postponed to September 2021. Since then, Ethiopia has been engulfed in civil war and faced severe political instability, dimming the prospects for peace and democratic progress that briefly emerged in 2018.

Despite relatively higher institutional quality in Botswana, Namibia, and South Africa, it experiences a decreasing trend. In Botswana in 2004 there was an election and the dominance of the party system caused the incumbent firm to win the election this created protest, but there as not significant political instability. Namibia's institutional quality has fluctuated greatly since gaining independence from South Africa in 1990. This is because the period immediately following independence is often marked by significant challenges in the establishment of stable governance structures. In 2005 marked by a change in leader from Sam Nujoma (1990-2004) to Pohamba (2005-2015), the institution was at its lowest due to a regime change, as noted by Chlouba (2021), and since 2010, corruption has been the main cause of decline.

Since 2009, when Jacob Zuma's administration, following Nelson Mandela's ruling of South Africa, was marked by rampant corruption that severely damaged South Africa's government, economy, and reputation, the country's institutional quality has been steadily declining. As the dominant party, the ANC came under heavy fire and scrutiny for what was seen to be its complicity in allowing and condoning corruption. The political climate in South Africa as well as initiatives to fight corruption and reestablish good governance are still being affected by the disclosures and inquiries surrounding these corruption scandals (Jones & Jones, 2021).

Figure 3: Evolution of institutional quality by country



Source: Author's computation using Stata 14, 2024

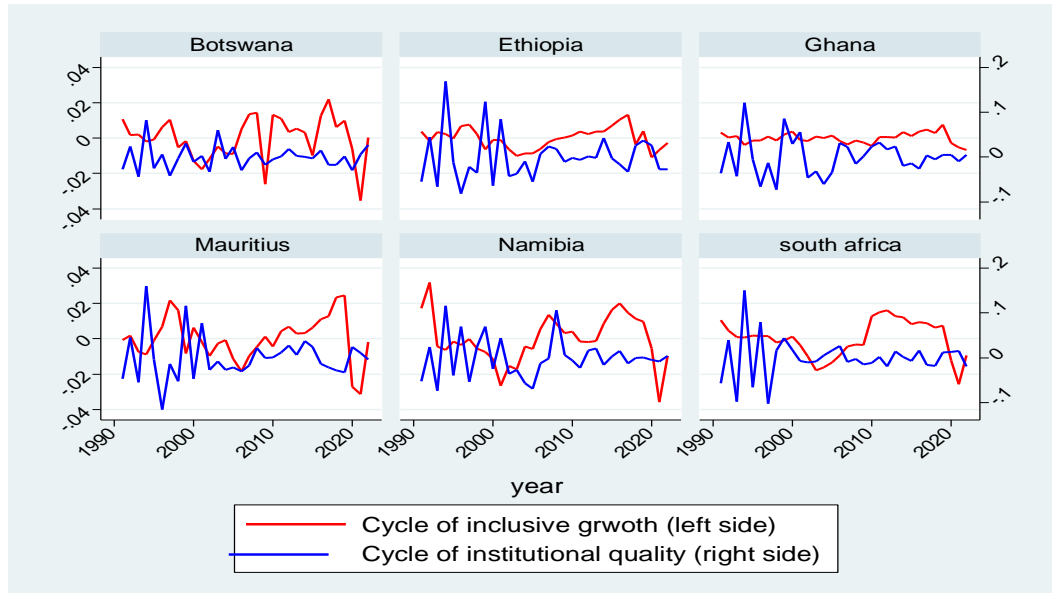
4.3.2. Inclusive growth vs institutional quality.

The cyclical co-movement between inclusive growth and institutional quality is depicted in Figure 4 below and the trend is presented in Annex (5). Relatively Botswana and Namibia have higher fluctuation in inclusive growth while Ghana and Ethiopia have lower inclusive growth volatility. On the other hand, countries like Mauritius, Ethiopia, and South Africa have higher volatility than other countries. Overall, except in Namibia institutional quality is highly volatile than inclusive growth, while in Ghana the reverse happens. Though there might be reverse causality volatile institutional growth would cause the inclusivity of growth to perform below the country's potential. The possible reasons for this higher volatility of institutional quality are discussed in sections 4.2 and 4.3.1.

Generally, the relationship between institutional quality and inclusive growth seems positive though as institutional quality first decreases inclusive growth shows an increasing trend with a flat slope. As the increase in institutional quality continues inclusive growth has also started to decline. Most of the time, developing nations pass laws making human trafficking illegal but neglect to adequately look into or prosecute the most serious legal infractions; they also set up courts and appoint judges who are ostensibly independent but inadvertently support meddling in judicial matters; and they establish anti-corruption commissions with no goal of

locating or recouping embezzled public monies. From this point on, we contend that Africa is stuck in an "institutional trap," which greatly adds to the region's current degree of poverty and backwardness (Daniel, 2020).

Figure 4: Co-movement (cycle) between inclusive growth and institutional quality by country



Source: author's computation using Stata 14, 2024

4.4. Fiscal Policy and Inclusive Growth

4.4.1. Evolution of fiscal policy

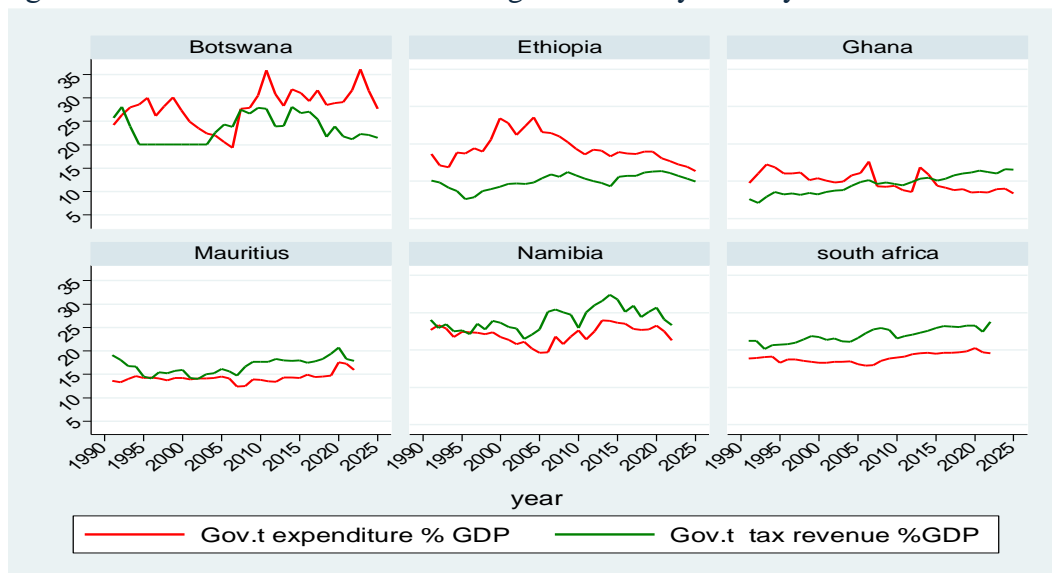
As can be seen from Figure 5 below the budget balance of the central government of countries is presented. Botswana has the highest tax revenue and expenditure share to GDP than other countries and except for a few years from 2003 to 2005, the country has a negative government budget balance. Throughout the study period, Ethiopia has a negative balance, and relatively the share of tax revenue and expenditure share to GDP is lower except for Ghana. Since 2004 Ethiopia's central government expenditure has been decreasing. Ethiopia's budget objectives were largely determined by subsequent national development plans, which during the previous ten years saw two significant changes in the country's spending patterns. These include shifting funding from federal to regional governments and from recurring to capital spending. Beginning in 2003/04, the government expenditure strategy underwent a steady reorientation, with capital expenditure accounting for 50% of overall expenditures by 2005/06. The change was brought about by the completion of the five-year national development plan in 2009/10, which led to significant capital budgetary expenditures for the development of infrastructure and social programs (WBG, 2016). A sustained decline in Ethiopia's central government expenditure to GDP ratio, which fell from 24.7 percent in 2003/04 to 16.8 percent in 2011/12

accompanies total revenue (including grants) to GDP ratio falling from 20.5 percent in 2003/04 to 15.5 percent in 2011/12. However, the decline in revenue was partially offset by the decline in aggregate spending, which led to the contraction of the fiscal deficit (including grants) from seven percent of GDP in 2007/08 to 1.2 percent of GDP in 2011/12.

Ethiopia's economy has grown steadily and consistently during the past ten years, placing it at the forefront of the world economy. Even with this growth, the nation's tax-to-GDP ratio is still less than 11%. During GTP II tax revenue performance is declining steadily over time. In 2013/14 tax as a percentage of GDP was 12.7 percent while in 2016/17 it decreased by 1.2 percentage points and by 2 percentage points in 2017/18. In 2019/20 total domestic revenue collection to GDP was 11.1 percent while tax to GDP ratio was 9.8 percent. Compared to the past decade's average it is a significant decline in performance (MOF, 2021).

Generally, Ethiopia has lower tax revenue as a percentage of GDP than other countries with relatively similar economic growth. while in terms of government expenditure, it has a relatively moderate level as compared to other countries. Mauritius, Namibia, and South Africa have surplus government budgets. and Ghana until 2006/07 had a negative balance, but since 2007 it has surplus government balance. These may be due to lower tax revenue in particular and domestic revenue mobilization in general in countries like Ethiopia and Botswana.

Figure 5: Evolution of Government budget balance by country.



Source: author's computation using Stata 14, 2024

4.4.2. Government expenditure and inclusive growth

The section delves into the examination of the cyclical co-movement of inclusive growth and government expenditure. Figure 6 illustrates that there is no distinct correlation between

inclusive growth and government expenditure throughout the study period i.e. in some periods we see a similar pattern and in some other years the contrary happens, yet government spending displays greater volatility. Notably, Botswana, Ethiopia, and Ghana exhibit relatively stable cyclical movement of inclusive growth, while Mauritius, Namibia, and South Africa experience higher fluctuation, showing a positive association with a cycle of government expenditure and inclusive growth.

However, the trends in government expenditure and inclusive growth presented in Annex (6) show a positive pattern between the two variables though it varies among the six countries. In Ethiopia, for instance, the period from 1991 to 2000 reflects a positive correlation between the two variables. Despite a continuous decrease in government expenditure since 2001, inclusive growth has been increasing, albeit at a slow rate. This aligns with Bhatti's (2021) argument suggesting a positive correlation between inclusivity and government expenditure at lower levels but a negative one at larger scales. However, Ethiopia's government expenditure, averaging around 18% of GDP, falls short of meeting the criteria for large-scale expenditure, rendering it ineffective in fostering inclusive growth. This ineffectiveness would be due to a higher share of unproductive expenditure i.e. 27.8% and 8.7% of total expenditure is spent on debt payment and defence.

In addition, According to the Ministry of Finance (MoF, 2019/20) pro-poor sectors, encompassing education, health, road construction, water and energy, and agriculture 2020s budget was 59% of the total government budget, but in 2024 it declined to 33%. Specifically, for the education sector from 2020 to 2024 it decreases from 21.1 to 9.7%, for health, it decreases from 5.3 to 3.9% and for agriculture and rural development, in which the agriculture sector takes 79% of the population, from 6.1 to 3.8% (UNICEF, 2023). Literature suggests that the composition of expenditure is crucial for its effectiveness in promoting inclusive growth. Chu and Hemming (1991) argue that productive expenditures consistently drive economic growth, a principle applicable to Ethiopia, where a significant portion of investment goes towards defense rather than productive assets due to governance issues, corruption, and political instability. Conversely, the notion proposed by Rubinson (1977) and Ram (1986) that expanding governments in low-income nations spurs economic progress does not hold for Ethiopia.

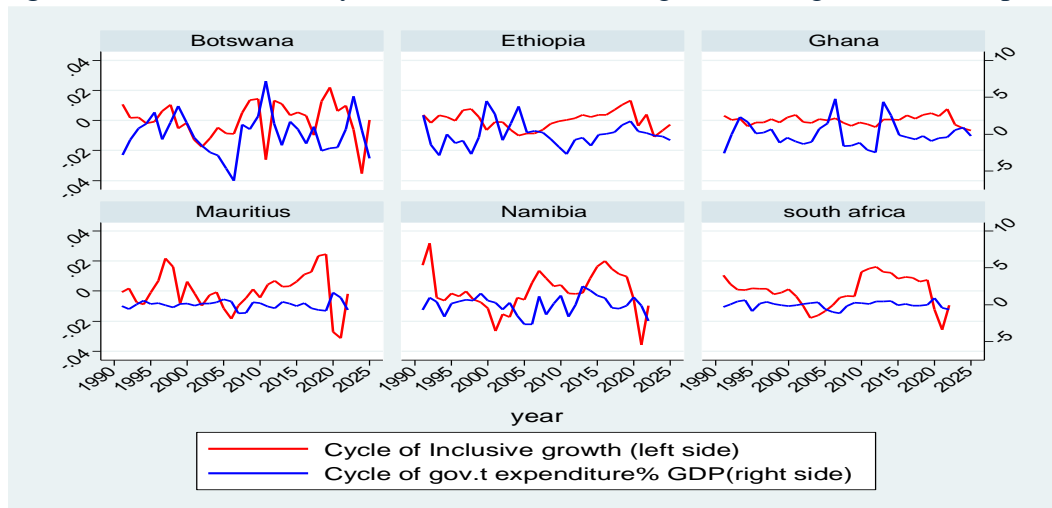
The comparative analysis of inclusive growth and government expenditure in African countries reveals varying trends and impacts. In Botswana, Mauritius, Namibia, and South Africa,

government expenditure positively correlates with inclusive growth over the study period. Botswana and Mauritius demonstrate positive relationships between government expenditure and inclusive growth, albeit with temporary decreases in government spending. Similarly, Namibia and South Africa consistently exhibit positive correlations between government spending and inclusive growth. Conversely, in Ethiopia and Ghana, government expenditure trends do not align with inclusive growth. Despite continuous increases in inclusive growth, government spending decreases over time in both countries, indicating a lack of association between the two variables.

This disparity in the effectiveness of government expenditure in enhancing inclusive growth could be attributed to various factors. Inefficient or regressive distribution of government spending, particularly in areas such as debt servicing, may limit its capacity to improve living standards for impoverished populations. Additionally, excessive government spending may lead to inflationary pressures, further hindering poverty alleviation efforts. The composition of government expenditure also plays a crucial role. In Ethiopia, a significant portion of expenditure is allocated to unproductive areas like debt repayment and defense, rather than sectors benefiting lower-income segments of the population. This is evidenced by declining budget allocations for pro-poor sectors such as education, health, and agriculture over time. Similarly, Ghana's escalating debt burden raises concerns about the government's financial strain and its implications for social service delivery and overall economic progress.

In conclusion, while government expenditure appears effective in fostering inclusive growth in some African countries, such as Botswana, Mauritius, Namibia, and South Africa, it does not seem to have the same impact in Ethiopia and Ghana. Addressing the composition and efficiency of government spending, as well as managing debt levels, are essential for promoting inclusive growth and sustainable development across the continent.

Figure 6: Co-movement (cycle) between inclusive growth and government expenditure



Source: author's computation using Stata 14, 2024

4.4.3. The Government Tax revenue and Inclusive Growth

The short-run fluctuation of tax revenue is positively related to inclusive growth. As can be seen from the figure below 4.8 tax revenue and inclusive growth have a positive relationship, but for the case of Ethiopia and Ghana, it does not show either a positive or negative relationship.

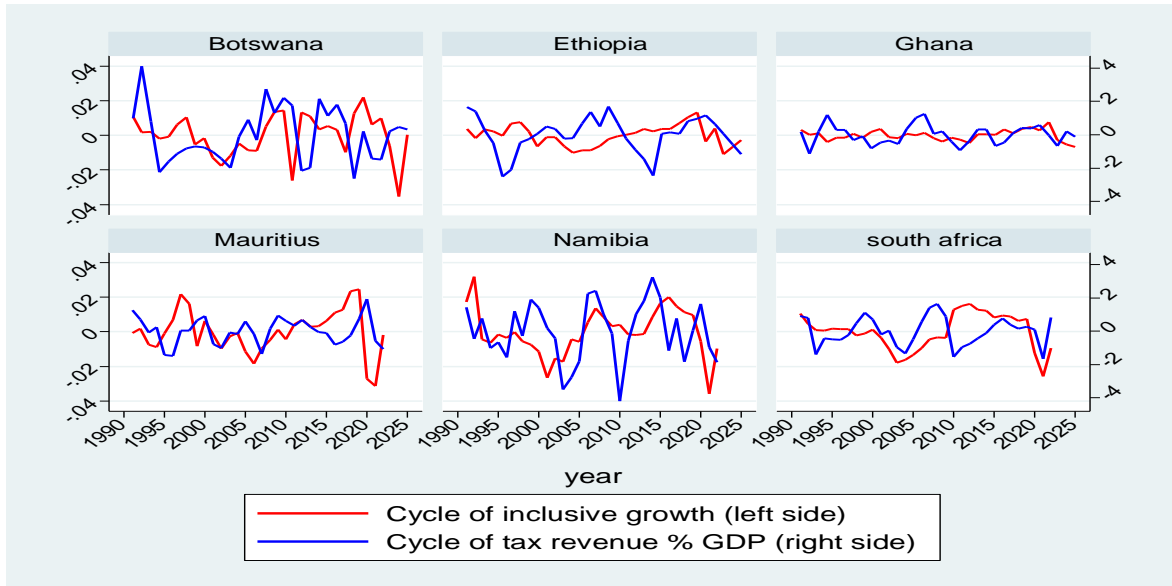
The long-run relationship between government tax revenue and inclusive growth presented in Annex (6) is positive except in Botswana where inclusive growth increases regardless of the level of tax revenue which has an inverse S-shape i.e. both minimum and maximum for the study sample and Ethiopia after 2015 tax revenue decreases while inclusive growth increases regardless of the decrease in tax revenue. This relationship will be since tax to GDP ratio in Ethiopia is very low as compared to other countries except Ghana which reduces the impact of tax on inclusive growth. Generally, we can underscore that there exists a symbiotic relationship in which both variables benefit from one another. This can be explained as higher inclusiveness of the economy increases production and consumption and then enables the government to collect large amounts of tax revenue. Through funding social programs, infrastructure development, fair taxes, investments in human capital, assistance for SMEs, and community development efforts, tax income plays a critical role in promoting inclusive growth. Governments may foster an atmosphere where economic growth is fair and advantageous to all facets of society by skilfully utilizing tax revenue. This argument is supported by Ola (2001); Musgrave and Musgrave (2004), and Ofoegbu et al. (2016).

The other important reason is that Ghana and Ethiopia have lower tax-to-GDP ratios as compared to the other four countries. This would tell us that, given all countries use progressive taxation policy, the higher the revenue the higher the capacity for the government to provide public investment and social contribution. In this case when we see the average tax to GDP ratio of Ethiopia and Ghana are 10 and 9.24% respectively, which are lower than the World Bank cited in Mamman et.al.(2023) threshold tax to GDP ratio of 15% to make tax revenue effective to enhance inclusive growth. The issue of tax equity in Ethiopia affects inclusive growth. The tax system's impact on after-tax income distribution depends on its progressivity, which determines how quickly the tax share rises with income levels. This influences economic fairness and overall growth.

Optimal tax theory underscores the delicate balance between equity and efficiency in taxation. Ideally, governments should implement a progressive tax-benefit system based on individuals' exogenous innate abilities. However, human capital, influenced by education, health, and other choices, is not exogenous. Thus, an efficient system would not distort behavior. Since governments can't directly observe talent, they rely on income, which reflects both talent and effort. Taxing based on income discourages effort and introduces welfare-reducing distortions, creating a trade-off between equity and efficiency in designing the tax-benefit system.

Optimal income tax theory, pioneered by Mirrlees (1971) and advanced by Diamond (1998) and Saez (2001), seeks to find the ideal balance in the tax-benefit system. Regardless of the social welfare weights applied, it's observed that the average tax burden at the bottom tends to be negative, indicating transfers to those with the lowest income. Marginal tax rates should ideally follow a U-shaped pattern concerning income: high at the bottom, then decreasing towards the middle, and rising again towards the top. High marginal rates at the bottom are due to phased-out transfers for middle incomes, balancing costs. Lower rates for middle-income groups aim to prevent significant labor effort distortions. Finally, a progressive tax rate structure should be applied from the middle to the top to increase progressivity, mirroring existing systems of means-tested benefits and personal income tax schedules.

Figure 7: Co-movement (cycle) between inclusive growth and tax revenue by country

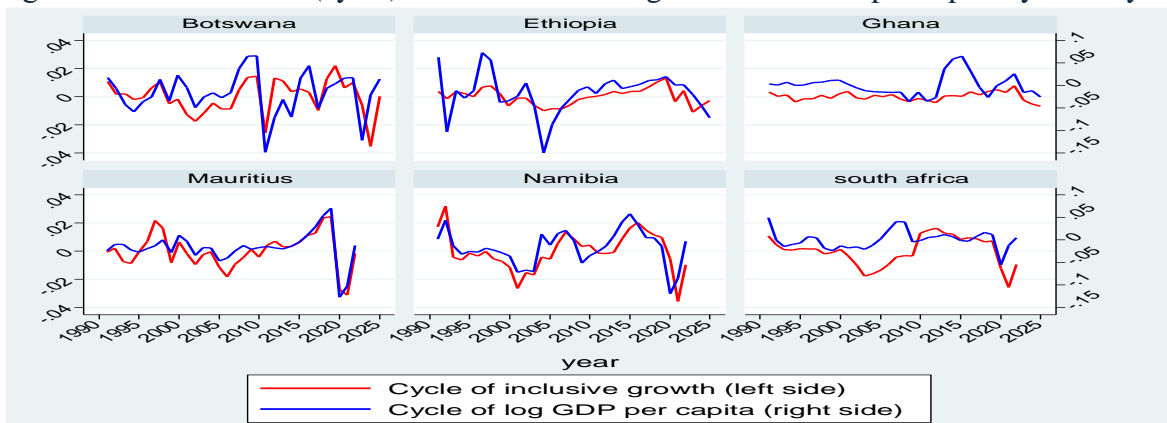


Source: author's computation using Stata 14, 2024

4.5. GDP per capita and inclusive growth

Some literature shows that GDP per-capita growth does not necessarily mean inclusive growth. To check this theory here below the cycle presented in Figure 8 and the long-run trend presented in Annex (7) for the short and long-run relationship between inclusive growth and GDP per capita growth relationship were depicted respectively. Both figures confirm that in countries selected for this study, the two variables have a direct relationship despite the level of the initial value for both variables.

Figure 8: Co-movement (cycle) between inclusive growth and GDP per capita by country



Source: author's computation using Stata 14, 2024

4.6. Empirical Analysis

4.6.1. OLS Estimation Result

The regression analysis of the relationship between dependent variables, inclusive growth, and independent variables (fiscal policy, institutional quality, and other control variables) is presented in Table 5. Column 1 presents a list of explanatory variables, column 2 the estimation result of panel random effect GLS for a group of five countries, and column 3 presents time series estimation results using data from Ethiopia by decomposing tax revenue as direct which has a positive sign and indirect tax with a negative sign. Since the two components of tax revenue have opposite signs column 4 uses total tax revenue by summing the two components together and it reveals a positive sign. However, in the case of Ethiopia presented in column 3 government expenditure has a negative which is the opposite sign with tax revenue in the fifth column of Table 5 the interaction term of tax revenue and government expenditure is presented. The magnitude of each variable's effect on inclusive growth is discussed below in section 4.7.

4.7. Discussion of results

Institutional quality and inclusive growth: Column 2 of Table 5 revealed that when we take five countries together institutional quality has a positive significant effect on inclusive growth. A unit (which corresponds to a full range) change in institutional quality on a normalized scale leads to a 0.139 normalized scale point increase in inclusive growth at a 10% level of statistical significance, while in Ethiopia though the coefficient is positive it is not statistically different from zero, but the coefficient is higher, 0.167. This is in line with Sabir & Qamar (2019). In column 3, institutional quality demonstrates a positive but statistically insignificant influence on inclusive growth, aligning with expectations.

Government expenditure and inclusive growth: In Ethiopia, government expenditure harms inclusive growth but it is not statistically significant (see column 3 of Table 5). In other countries presented in column 2 of Table 5, it has a statistically significant positive effect with a 1 percent increase in government spending corresponding to a 0.01 normalized scale point rise in inclusive growth at a 1% level of significance. This aligns with previous studies suggesting that the composition of expenditure (Chu and Hemming, 1991), social transfers (Zouhar et.al., 2021), and fiscal space improvement (Clements et.al., 2015) contribute to inclusive growth. However, in Ethiopia, these variables exhibit a negative but statistically insignificant relationship. This could be attributed to higher recurrent expenditure, declining capital expenditure, lower social contributions, limited fiscal space, and heightened risk of

indebtedness in the country. These disparities underscore the importance of contextual factors in understanding the effectiveness of fiscal policy in fostering inclusive growth.

Government Tax Revenue and Inclusive Growth: In Ethiopia, direct tax shows a positive and significant impact, while indirect tax revenue demonstrates a negative but insignificant effect. A 1% increase in direct tax leads to a 0.0204 normalized scale point increase in inclusive growth with a 1% level of significance while in indirect tax the coefficient is 0.0063 which is lower than direct tax. Considering the opposing signs of direct and indirect tax revenue, total tax revenue is utilized, with direct and indirect tax revenue excluded in column 4. The analysis reveals a positive but statistically insignificant effect on inclusive growth. In column 5, the interaction term of government expenditure and total tax revenue unveils a significant negative impact of fiscal policy on inclusive growth in Ethiopia. This suggests that while government spending and tax revenue individually may not significantly influence inclusive growth, their combined effect underlines a substantial negative impact, which supports Hope and Limberg's (2020) finding impact of fiscal policy depends on the combined effect of tax revenue and government expenditure, highlighting potential challenges in Ethiopia's fiscal policy framework. On the other hand, in other countries, both direct and indirect tax revenue have a positive significant effect with regression coefficients of 0.0114 and 0.0136 respectively in line with Musgrave and Musgrave (2004), Okpe (2000), Onoh (2013), and Ofoegbu et al. (2016).

Change leader and inclusive growth: In Ethiopia, for the study sample, four leaders are changed by different mechanisms. These are coup, election, death, and voluntary resignation before the end of the leader's term. In all situations, change in leadership in Ethiopia has a positive impact on inclusive growth but it is not statistically different from zero. However, in all other countries used in this study change in leader occurs through election and death only. Among these two cases change in leader due to the death of the incumbent leader has a negative impact and it shows that a decrease in inclusive growth by 0.0415 normalized scale points while a change in leader by election has a positive impact with a regression coefficient of 0.001, but both coefficients are not statistically different from zero. In terms of statistical significance, this result is contrary to Johnes and Olken (2005), but they didn't indicate the sign of the impact, Carlyle (1859), and Gemmill and Oakley (1999).

Political system and inclusive growth: In Ethiopia political system is used as a dummy variable (parliamentary and presidential) and the regression revealed that a change from a

presidential to a parliamentary system increases inclusive growth by 0.0119 normalized scale points which is equivalent to 1.19 percent, but the coefficient is not statistically significant. While for other countries in addition to the two political systems, there is an additional system named assembly election. The regression result revealed that a change from a constitutional assembly to a presidential system leads to a decrease in inclusive growth by 0.105 normalized scale points and the coefficient is statistically significant at a 1 percent level of precision. On the other hand, though it is not statistically significant, a shift from constitutional assembly to parliamentary system increases inclusive growth by 0.109 normalized scale points confirming it is better than the assembly election and in turn assembly election is better than a presidential system. Therefore, it is possible to conclude that a parliamentary system of government is essential for inclusive growth. This finding is in line with McManus & Ozkan (2018), Persson and Tabellini (2003), and Bormann & Golder (2013), but contrary to the findings of Mainwaring and Shugart (1997).

Election and inclusive growth: It was hypothesized that an election could have a positive impact on inclusive growth because the incumbent leader would improve social contribution and infrastructure investment during the election to get support from the people, but in both regressions, it is found to have negative insignificant impact on inclusive growth. for the time series regression (Ethiopia) during election period, institutional quality decreases by 0.0043 points on a normalized scale. While for the other group of the country, the coefficient is 0.0148. This result is contrary to Cox and McCubbins 1986, Lindbeck and Weibull 1987 and Dixit and Londregan (1996). The negative sign would be potentially explained by the fact that an election requires a huge budget which lowers social contribution and investment in productive assets which in turn negatively affects inclusive growth.

Gross Domestic Product per capita growth and inclusive growth: regression results presented in columns 2 and 4 of Table 5 confirmed that GDP per capita growth does not mean inclusive growth i.e. growth marginalizes/disadvantages some classes of society. For instance, in Ethiopia, though it has a positive impact the coefficient is not different from zero. While in other countries, it has a positive and statistically significant effect on inclusive growth. this study is in line with Kumah & Sandy's (2013), Adedeji et.al., (2013) and (OECD, 2014).

As was hypothesized the impact of FDI on inclusive growth in Ethiopia is positive and in other countries, it is negative which is in line with Nunnenkamp et.al., (2007), and Tamar et. al.,

(2020) suggesting FDI impact on inclusive growth depends on absorptive capacity FDI inflow by the government. The other variable, financial development measured by domestic credit to the private sector as a percentage of GDP which has a positive impact on inclusive growth of both countries.

Table 4: Estimation result, dependent variable: inclusive growth

VARIABLES	(1)	(2)	(3)	(4)
Inst_Quality	0.139* (0.0809)	0.167 (0.116)	0.179 (0.166)	0.130 (0.168)
Gov_Expenditure	0.00585*** (0.00214)	-0.00298 (0.00330)	-0.0119** (0.00425)	
Direct_Tax_revenue	0.0114*** (0.00326)	0.0204*** (0.00551)		
Ind_Tax_revenue	0.0136*** (0.00229)	-0.00630 (0.00878)		
Tax_Revenue			0.00248 (0.00905)	
Tax_rev*gov_exp				-0.000609** (0.000222)
Change_leader_death	-0.0415 (0.0389)	0.0168 (0.0361)	0.00850 (0.0513)	-0.0187 (0.0492)
Change_leader_election	0.00921 (0.0137)	0.0213 (0.0382)	0.0483 (0.0631)	-0.00723 (0.0556)
Change_leader_coup		0.0309 (0.0438)	0.00788 (0.0619)	0.0164 (0.0631)
Change_leader_voluntary		0.0461 (0.0337)	0.0229 (0.0487)	0.0436 (0.0478)
Parliamentary_pol_system	0.109(0.125)			
Presidential_pol_system	-0.105*** (0.0296)	-0.0119 (0.0369)	-0.0959* (0.0507)	-0.0368 (0.0389)
Election (Yes)	-0.0148 (0.00940)	-0.00431 (0.0136)	0.0170 (0.0183)	0.0127 (0.0186)
FDI	-0.00110 (0.00212)	0.0126** (0.00536)	0.0172** (0.00620)	0.0204*** (0.00613)
Financ_Devt	0.00518*** (0.000428)	0.0105*** (0.00157)	0.00888** (0.00314)	0.0135*** (0.00144)
GDPPC_Growth	0.00249** (0.00125)	0.000922 (0.00152)	-0.00133 (0.00188)	-0.00109 (0.00194)
Constant	-0.380*** (0.0955)	0.00595 (0.0819)	0.211** (0.0880)	0.0662 (0.0481)
Cont. Country fixed effect	Yes	-	-	-
R2	0.9507	0.967	0.929	0.922
Observations	160	32	32	32
Number of countries	5	1	1	1

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.

5. Conclusion and Recommendation

5.1. Conclusion

This study examined the evolution and effectiveness of institutional quality and fiscal policy (Tax revenue and government expenditure) in enhancing inclusive growth in Ethiopia and compared the results with another group of countries having relatively similar economic performance. To address these objectives secondary data ranging from 1991 to 2022 was used. Both descriptive and econometrics designs were used and to compute inclusive growth and institutional quality index principal component was used.

The descriptive analysis shows that though Ethiopia has a lower average GDP per capita, one of the main components used to compute inclusive growth, its average growth rate is higher than other countries. Tax revenue in Ethiopia is lower and it is decreasing which reduces fiscal space and increases debt burden and investment and social contribution. On the other hand, government expenditure is moderate relative to other countries, but debt repayment and defense expenditure take the largest share of government expenditure, which implies lower expenditure on infrastructure and social contribution which shall marginalize the poor from benefiting from higher growth. Differences in the distribution of government spending between productive and non-productive activities may account for variations in the efficacy of spending on inclusive growth. Furthermore, the advantages of government spending may not always be distributed fairly. Institutional quality in Ethiopia is the lowest as compared to other countries which is the result of a chronic crisis in governance typified by the arbitrary rule of a small elite over the general public. Particularly, during the Derg regime from 174 to 1991 misguided political and economic policies, which were modeled after Soviet totalitarianism, encouraged destructive behavior that resulted in the loss of human capital, the repression of civil society, and economic failures. Overall, the chosen countries' institutional quality is marked by volatility and swings.

The econometrics analysis shows that in Ethiopia Tax revenue has a direct impact, but it is not statistically significant and government expenditure has a negative effect. To see the overall rise of fiscal policy in this study the interaction term was examined and it revealed negative. This result confirms the ineffectiveness of fiscal policy in Ethiopia. For the other group of countries, Tax revenue and government expenditure have a positive significant effect on inclusive growth. the other variable, institutional growth has a positive impact in both Ethiopia and other groups of countries, but for the former, it is statistically insignificant. Therefore, based on the data available and methodology employed this study concludes that both fiscal

policy and institutional quality are not effective in enhancing inclusivity in Ethiopia while in other groups both were found to be effective.

5.2. Recommendation

Based on the results revealed in the discussion and conclusions made the following policy recommendations are presented;

- Ethiopia collects less revenue from taxes than other nations, which has a negligible statistical impact on inclusive growth. Therefore, Ethiopia ought to amend its tax policies, particularly indirect tax, and reduce tax evasion and avoidance through implementing technological innovations like cash registers for medium and large business owners.
- Ethiopia's government expenditure is moderate but largely unproductive due to high debt repayment and military expenses. Reducing debt and redirecting spending towards productive assets and social contributions is essential to meet the basic needs of the poor and enhance productivity.
- Economic success depends on institutions that foster justice and fairness which in turn enhances inclusivity in economic growth. Therefore, Ethiopia ought to reform its institutional structure to improve political stability, reduce corruption, and promote accountability and responsibility.

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Annexes

Annex 1: Panel data regression for the five groups of countries by decomposing tax revenue

```
. xtreg Inclusive_Growth Inst_Quality Gov_Expenditure Direct_Tax_revenue Ind_Tax_revenue i.Change_leader i.p
> ol_system i.Election FDI Financ_Devt GDPFC_Growth i.id
note: 5.id omitted because of collinearity
```

```
Random-effects GLS regression           Number of obs   =       160
Group variable: id                     Number of groups =         5

R-sq:                                   Obs per group:
    within = 0.7145                      min =           32
    between = 1.0000                     avg =          32.0
    overall = 0.9507                     max =           32

Wald chi2(15) =       2777.24
Prob > chi2   =         0.0000
```

```
corr(u_i, X) = 0 (assumed)
```

Inclusive_Growth	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Inst_Quality	.1392771	.0808525	1.72	0.085	-.019191	.2977451
Gov_Expenditure	.005851	.0021448	2.73	0.006	.0016472	.0100548
Direct_Tax_revenue	.0114022	.0032594	3.50	0.000	.0050138	.0177905
Ind_Tax_revenue	.0136273	.0022893	5.95	0.000	.0091403	.0181144
Change_leader						
1	-.0414966	.0388561	-1.07	0.286	-.1176532	.03466
2	.0092053	.0137337	0.67	0.503	-.0177123	.036123
pol_system						
Parliamentary	.1085604	.1253391	0.87	0.386	-.1370997	.3542206
Presidential	-.1047134	.0296308	-3.53	0.000	-.1627886	-.0466381
1.Election	-.0147888	.0093967	-1.57	0.116	-.033206	.0036283
FDI	-.001102	.002124	-0.52	0.604	-.0052649	.0030609
Financ_Devt	.0051829	.0004283	12.10	0.000	.0043435	.0060224
GDPFC_Growth	.0024878	.0012465	2.00	0.046	.0000447	.004931
id						
Ghana	.4210478	.1153334	3.65	0.000	.1949985	.6470971
Mauritius	.2992957	.0549211	5.45	0.000	.1916522	.4069391
Namibia	-.0319641	.1140515	-0.28	0.779	-.2555009	.1915727
south africa	0	(omitted)				
_cons	-.3803187	.0955247	-3.98	0.000	-.5675436	-.1930937
sigma_u	0					
sigma_e	.05185928					
rho	0	(fraction of variance due to u_i)				

Annex 2: Panel data regression for the five group of countries by using overall tax revenue

```
. xtreg Inclusive_Growth Inst_Quality Gov_Expenditure Tax_Revenue i.Change_leader i.pol_system i.Election F
> DI Financ_Devt GDPFC_Growth i.id
note: 5.id omitted because of collinearity
```

```
Random-effects GLS regression           Number of obs   =       160
Group variable: id                     Number of groups =         5

R-sq:                                   Obs per group:
    within = 0.7079                      min =           32
    between = 1.0000                     avg =          32.0
    overall = 0.9496                     max =           32

Wald chi2(14) =       2730.45
Prob > chi2   =         0.0000
```

```
corr(u_i, X) = 0 (assumed)
```

Inclusive_Gro~h	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Inst_Quality	.1788062	.0790736	2.26	0.024	.0238249	.3337876
Gov_Expenditure	.0069314	.0019592	3.54	0.000	.0030915	.0107713
Tax_Revenue	.0130772	.0019318	6.77	0.000	.0092909	.0168635
Change_leader						
1	-.0421182	.0388946	-1.08	0.279	-.1183502	.0341139
2	.0092623	.0138428	0.67	0.503	-.0178692	.0363938
pol_system						
Parliamentary	-.1550952	.1169435	-1.33	0.185	-.3843002	.0741098
Presidential	-.1099162	.0290759	-3.78	0.000	-.1669038	-.0529286
1.Election	-.0133719	.0094577	-1.41	0.157	-.0319087	.005165
FDI	-.0003146	.0020955	-0.15	0.881	-.0044217	.0037924
Financ_Devt	.0051567	.0004299	12.00	0.000	.0043141	.0059993
GDPFC_Growth	.0030007	.0012629	2.38	0.017	.0005255	.005476
id						
Ghana	.2021415	.0969109	2.09	0.037	.0121995	.3920834
Mauritius	.324821	.0414451	7.84	0.000	.24359	.406052
Namibia	-.2811001	.1055601	-2.66	0.008	-.4879941	-.074206
south africa	0	(omitted)				
_cons	-.1920261	.0743599	-2.58	0.010	-.3377688	-.0462834
sigma_u	0					
sigma_e	.05227055					
rho	0	(fraction of variance due to u_i)				

Annex 3: Time series regression for Ethiopia by decomposing tax revenue

```
. reg Inclusive_Growth Inst_Quality Gov_Expenditure Direct_Tax_revenue Ind_Tax_revenue i.Change_leader i.pol
> _system i.Election FDI Financ_Devt GDPPC_Growth
```

Source	SS	df	MS	Number of obs	=	32
Model	.491759653	13	.037827666	F(13, 18)	=	40.72
Residual	.016720094	18	.000928894	Prob > F	=	0.0000
				R-squared	=	0.9671
				Adj R-squared	=	0.9434
Total	.508479747	31	.016402572	Root MSE	=	.03048

Inclusive_Growth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Inst_Quality	.1671187	.1159717	1.44	0.167	-.0765289 .4107663
Gov_Expenditure	-.0029751	.0033026	-0.90	0.380	-.0099136 .0039635
Direct_Tax_revenue	.0204023	.0055075	3.70	0.002	.0088315 .0319731
Ind_Tax_revenue	-.0062964	.0087829	-0.72	0.483	-.0247485 .0121558
Change_leader					
1	.0167905	.0360802	0.47	0.647	-.0590112 .0925921
2	.0213333	.0382326	0.56	0.584	-.0599904 .101657
3	.0308795	.0437908	0.71	0.490	-.0611215 .1228806
4	.04611	.0336643	1.37	0.188	-.0246161 .1168361
pol_system					
Presidential	-.0118902	.0369364	-0.32	0.751	-.0894908 .0657104
1.Election	-.0043054	.0136412	-0.32	0.756	-.0329645 .0243538
FDI	.0126364	.0053633	2.36	0.030	.0013684 .0239043
Financ_Devt	.0105408	.0015673	6.73	0.000	.007248 .0138337
GDPPC_Growth	.0009224	.0015199	0.61	0.551	-.0022707 .0041155
_cons	.0059512	.081901	0.07	0.943	-.1661163 .1780188

Annex 4: Time series regression for Ethiopia by using total tax revenue

```
. reg Inclusive_Growth Inst_Quality Gov_Expenditure Tax_Revenue i.Change_leader i.pol_system i.Election FDI
> Financ_Devt GDPPC_Growth
```

Source	SS	df	MS	Number of obs	=	32
Model	.472522791	12	.039376899	F(12, 19)	=	20.81
Residual	.035956956	19	.001892471	Prob > F	=	0.0000
				R-squared	=	0.9293
				Adj R-squared	=	0.8846
Total	.508479747	31	.016402572	Root MSE	=	.0435

Inclusive_Growth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Inst_Quality	.1788093	.1655771	1.08	0.294	-.1677474 .5253661
Gov_Expenditure	-.0119027	.0042489	-2.80	0.011	-.0207957 -.0030098
Tax_Revenue	.0024839	.0090541	0.27	0.787	-.0164665 .0214342
Change_leader					
1	.0084965	.0513181	0.17	0.870	-.0989134 .1159064
2	.0483211	.0631127	0.77	0.453	-.0837753 .1804175
3	.0078769	.0619453	0.13	0.900	-.121776 .1375299
4	.0229179	.048706	0.47	0.643	-.079025 .1248607
pol_system					
Presidential	-.0959138	.0506543	-1.89	0.074	-.2019344 .0101069
1.Election	.0169705	.0182955	0.93	0.365	-.0213225 .0552634
FDI	.017214	.0061979	2.78	0.012	.0042417 .0301863
Financ_Devt	.0088823	.0031431	2.83	0.011	.0023037 .0154609
GDPPC_Growth	-.0013299	.001876	-0.71	0.487	-.0052564 .0025966
_cons	.2106747	.0880338	2.39	0.027	.0264178 .3949316

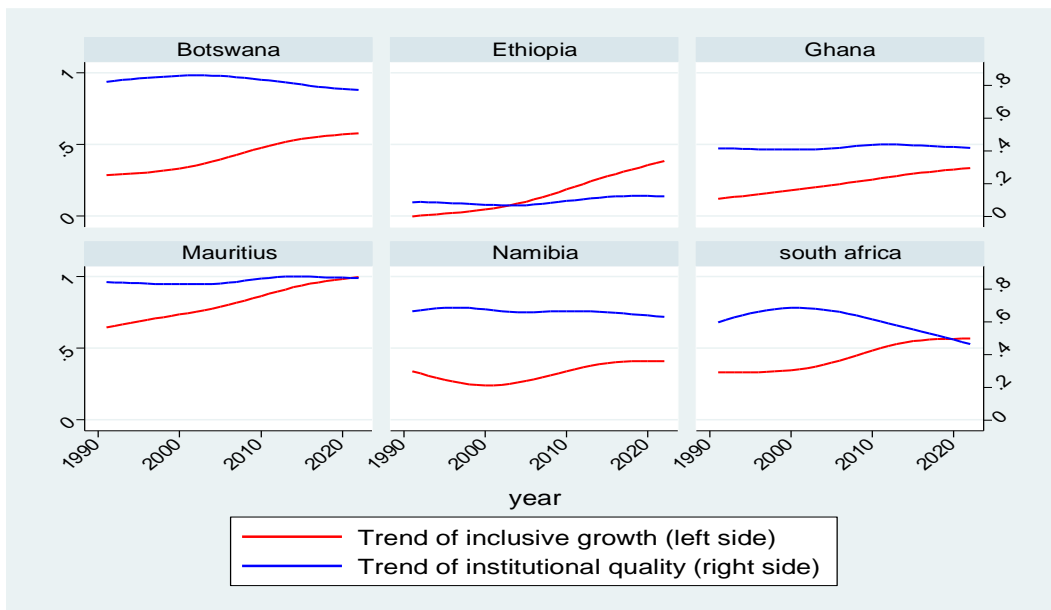
Annex 5: Time series regression for Ethiopia by using interaction term of tax revenue & gov.t exp.

```
. reg Inclusive_Growth Inst_Quality tax_expenditure i.Change_leader i.pol_system i.Election FDI Financ_Devt
> GDPPC_Growth
```

Source	SS	df	MS	Number of obs	=	32
Model	.468709533	11	.042609958	F(11, 20)	=	21.43
Residual	.039770214	20	.001988511	Prob > F	=	0.0000
				R-squared	=	0.9218
				Adj R-squared	=	0.8788
Total	.508479747	31	.016402572	Root MSE	=	.04459

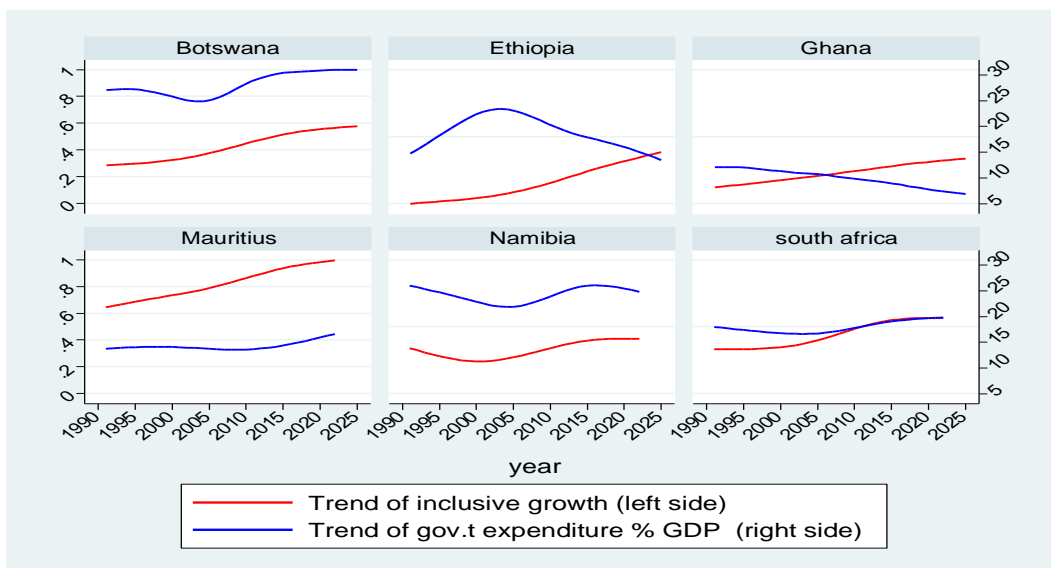
Inclusive_Growth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Inst_Quality	.129601	.1681867	0.77	0.450	-.2212303 .4804322
tax_expenditure	-.0006087	.0002223	-2.74	0.013	-.0010725 -.0001449
Change_leader					
1	-.018743	.049211	-0.38	0.707	-.1213953 .0839093
2	-.0072333	.0555912	-0.13	0.898	-.1231945 .1087279
3	.0164279	.0630962	0.26	0.797	-.1151884 .1480441
4	.043581	.0478277	0.91	0.373	-.0561859 .1433478
pol_system					
Presidential	-.0367722	.0389241	-0.94	0.356	-.1179664 .044422
1.Election	.0127207	.0185592	0.69	0.501	-.0259932 .0514346
FDI	.0204267	.0061342	3.33	0.003	.0076309 .0332224
Financ_Devt	.0135451	.0014383	9.42	0.000	.0105449 .0165454
GDPPC_Growth	-.0010913	.0019359	-0.56	0.579	-.0051294 .0029468
_cons	.066164	.0480551	1.38	0.184	-.0340772 .1664051

Annex 5: Long-run relationship between inclusive growth and institutional quality by country.



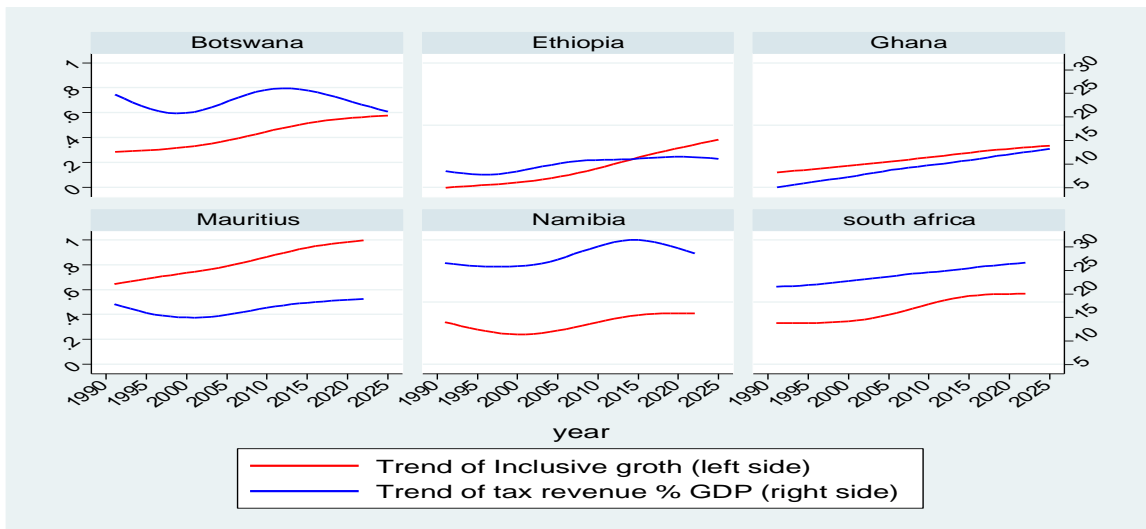
Source: author's computation using Stata 14, 2024.

Annex 6: Long-run relationship between inclusive growth and government expenditure by country.



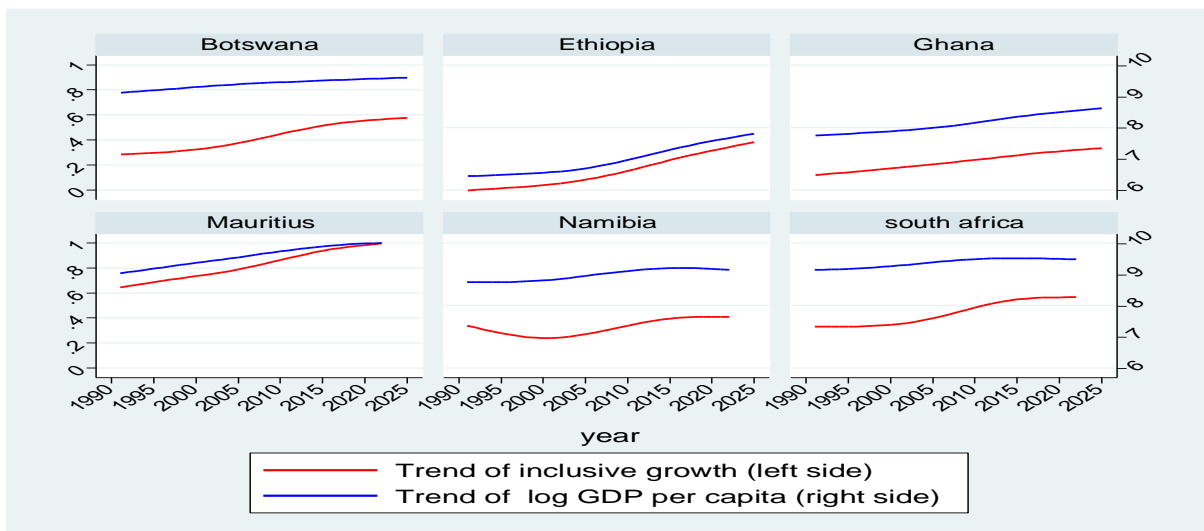
Source: author's computation using Stata 14, 2024

Annex 6: Long-run relationship between inclusive growth and tax revenue by country.



Source: author's computation using Stata 14, 2024

Annex 7: Long-run relationship between inclusive growth and GDP per capita by country.



Source: author's computation using Stata 14, 2024.