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Working Paper

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Suggested Citation: Ofori, Isaac K.; Asongu, Simplice A. (2022) : Repackaging FDI for Inclusive Growth: Nullifying Effects and Policy Relevant Thresholds of Governance, ZBW - Leibniz Information Centre for Economics, Kiel, Hamburg

This Version is available at:

<https://hdl.handle.net/10419/248546>

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Repackaging FDI for Inclusive Growth: Nullifying Effects and Policy Relevant Thresholds of Governance ¹

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Abstract

This study examines whether the remarkable inflow of resources in the form of foreign direct investment (FDI) to SSA contributes to inclusive growth in the region. The study further investigates whether SSA's institutional fabric modulates the effect of FDI on inclusive growth in SSA. To this end, we draw data on 42 SSA countries for the period 1990 – 2020 for the analysis. The evidence, which are based on the GMM estimator shows that: (1) though FDI fosters inclusive growth in SSA, the effect is weak, and (2) the weak inclusive growth inducing-effects of FDI are weakened or nullified completely by SSA' fragile governance quality. Nonetheless, the optimism, which we provide by way of threshold analysis shows that channelling resources into the development of these governance dynamics yield positive net effects from the short-term through to the long-term. Notably, the results show that the short-term to long-term FDI-induced inclusive growth gains of developing frameworks and structures for fighting corruption while addressing fragilities in regulatory quality and government effectiveness are outstanding. A few policy recommendations are discussed in the end.

Keywords: AfCFTA; Africa; Economic Integration; FDI; Governance; Inclusive Growth

JEL Codes: F6; F15; O43; O55; R58

¹ This paper is an extended/improved version of "Foreign Direct Investment, Governance and Inclusive Growth in Sub-Saharan Africa": <http://www.afridev.org/RePEc/agd/agd-wpaper/Foreign-Direct-Investment-Governance-and-Inclusive-Growth-in-Sub-Saharan-Africa.pdf>

1.0 Introduction

Even before the unprecedented tumbling of sub-Saharan Africa (SSA) into recession in 2020 was the agenda to spur inclusive growth in the sub-region, evidence of which is the institution of the continental framework dubbed, *The Africa We Want*² (Africa Union, 2015). The issue of inclusive growth is worth investigating considering SSA's porous growth trajectories in the past two decades, which as Ofori and Asongu (2021), World Bank (2020a), Pickett and Wilkinson (2015), and Sen (2010) reckon, could have dire consequences for the fight against crime, social unrest, and human resource wastage. Indeed, while several SSA countries, for example, Botswana, Mauritius and Ghana boast of making giant headways in reducing extreme poverty levels from 1990 to 2015, income inequality and unemployment are still rising (IMF, 2020; World Bank, 2020a; 2020b). And with the emergence of the coronavirus pandemic, which has triggered massive welfare setbacks (Bergstrom, 2020; World Bank, 2020a) achieving inclusive growth in SSA in the light of Africa's Agenda 2063 and the SDGs 1, 5 and 10 has become daunting than ever.

This has rekindled the debate on how policymakers interested in SSA's development agenda can foster and sustain shared prosperity. This study contributes to the discourse by paying attention to foreign direct investment (FDI) as a vehicle for spurring shared income growth and distribution in SSA. Our attention on FDI is motivated by the (i) implementation of the African Continental Free Trade Area (AfCFTA) and (ii) projected rebound³ of FDI inflows to SSA from 2022 (UNCTAD, 2021; 2020). The optimism with FDI is that it can generate durable and equitable wealth through technological transfer, innovation diffusion, industrialisation, macroeconomic stability, employment, and poverty alleviation (Adeleye *et al.*, 2020; Asongu & Odhiambo, 2020; Opoku *et al.*, 2019; Sakyi & Egyir, 2017).

Moreover, in the face of the wider market created by the AfCFTA, grounds are fertile for higher FDI inflows even beyond 2022, which could prove crucial for spurring SSA's industrial drive as enshrined in Aspiration 1.4 of Agenda 2063. Additionally, FDI has the potential to foster inclusive growth directly through enhanced private-sector competition, forward and backward linkages, global value participation, and foreign exchange, with the potential of creating durable employment opportunities in the process (Anetor *et al.*, 2020; Ucal, 2014; Fauzel *et al.*, 2015; Sakyi & Egyir, 2017). Indirectly, FDI can also contribute to

²The Agenda 2063 forms the Africa's long-term goal of achieving socioeconomic and environmental sustainability by 2063.

³ FDI inflow to SSA slumped in 2019 and 2020 following the emergence of COVID-19 and the geopolitical fragility of the region (UNCTAD, 2020).

shared growth through infrastructural development, human capital development, and corporate social responsibility, while supporting fiscal redistribution through the fulfilment of tax obligations (Opoku *et al.*, 2019).

Despite these possibilities, we reckon that the fulcrum on which FDI evolves to contribute to shared prosperity is good governance. Indeed, the words of the former UN Secretary-General, Kofi Annan, labelling good governance as ‘*perhaps the most single important factor in eradicating poverty and promoting development*’ underscores the relevance of quality political, economic and institutional frameworks for spurring inclusive growth. Principally, good governance is imperative for building inclusive growth through the creation and enhancement of a conducive political and socioeconomic climate that promotes accountability, fair redistribution, and social cohesion (UNDP 2017; OECD, 2016; Stiglitz, 2012; Kaufmann *et al.*, 2010). And this has been captured succinctly in SDG 16⁴ and Aspirations 3 (an Africa of good governance, democracy, respect for human rights, justice and the rule of law) and 4 (a peaceful and secure Africa) of Africa’s Agenda 2063 (United Nations, 2015; African Union, 2015).

For instance, to attract, integrate and sustain FDI in host countries to contribute to inclusive growth, sound political governance is required to set the tone for social cohesion, and the protection of foreign investors (Adegboye *et al.* 2020; Asongu & Nwachukwu, 2016; Khan, 2012). Prudent economic governance— one that reduces the cost of doing business and investment risk is also imperative for ensuring that the private sector takes advantage of FDI to improve upon innovation and productivity while contributing to durable employment opportunities (Asongu & Kodila-Tedika, 2016; De Haan, 2015; Pritchett & Werker, 2012). Additionally, strong institutional governance is also imperative not only for sharing the gains from FDI but spearheading accountability, social inclusion, and the levelling of the playing field for all to have a chance of decent living and contribute to national development (Ivanyna & Salerno, 2021; Zhuang *et al.*, 2010).

However, in the face of weak governance, the ‘discontents’ associated with FDI as Pavcnik (2017), Ravallion 2018, and Stiglitz (2012) point out could materialize, triggering inclusive growth setbacks. For instance, a weak legal regime can hurt socioeconomic sustainability as it may not only guarantee investments returns but also arm political elites with the power to interfere in FDI-related innovation, growth and ownership. Additionally, while weak legal systems may cause foreign investors not to commit to environmental sustainability

⁴ Peace, justice and strong institutions

laws (Kamah, 2021; Opoku & Boachie, 2020; Dhrifi, 2020), poor governance effectiveness could result in policymakers not mapping out strategies to cushion the masses to gains from FDI. In the settings like SSA economic freedom is low and the masses depend on the immediate environment for subsistence, these developments can also hurt inclusive growth through low agricultural productivity, unemployment, income inequality and food insecurity (Asongu & Odhiambo, 2021; Pouw & De Bruijne, 2015).

Despite the aforementioned FDI-governance linkages, the gap in the literature, particularly, on SSA is that rigorous empirical contributions exploring the extent to which governance mediates the effect of FDI on inclusive growth are hard to find. This forms the basis of this study where we examine how various governance dynamics— economic governance (composed of governance effectiveness, and regulatory quality); political governance (comprising political stability, and voice and accountability); and institutional governance (rule of law, and control of corruption) moderate the effect of FDI on inclusive growth in SSA. We test two hypotheses in this regard. First, we test whether unconditionally, both governance and FDI induce inclusive growth in SSA. Second, we test whether SSA's institutional fabric propels FDI to promote inclusive growth in SSA.

The results, which we provide by way of instrumental variable regression, show that (i) although FDI promotes inclusive growth in SSA, the effect is weak, (ii) SSA's weak governance quality dampens or nullifies completely the marginal inclusive growth inducing-effects of FDI. Particularly, the results show that the nullifying effects of corruption control, government effectiveness and voice and accountability are striking. Our contribution could prove crucial for African leaders and their development partners who look forward to accelerating shared growth efforts to mitigate the welfare setbacks imposed by the coronavirus pandemic as well as the realisation of Goals 1, 8, and 10 of the United Nations' Agenda 2030 and Aspiration 1 of Africa's Agenda 2063.

The rest of the paper is organised as follows: the next section provides a theoretical link between FDI, governance and inclusive growth, while Section 3 outlines the methodological foundation of the study. We present our results and discussion in Section 4, while Section 5 concludes with policy recommendations.

2.0 The theoretical link between FDI, governance and inclusive growth

The theoretical exposition on the effect of economic integration/globalisation on inclusive growth is viewed from two perspectives. The first is the indubitable consensus that in countries where there is abundant labour, trade, of which FDI is a complementary component in

contemporary cross-border relations, can spur shared growth and poverty alleviation (Hassan, 2005; Bourguignon, 2003; Dollar & Grossman, 2002; Gorssman & Helpman, 1991; Ravallion, 2001; Reyes, 2001, Romer, 1990). The theoretical underpinnings of this stem from the Ohlin (1933), Samuelson (1939), the Bhagwati (1973) hypothesis and the modernization theories that FDI contributes to socioeconomic development through the augmentation of recipient countries' productive capacity, global value chain participation, job creation, technological transfer and foreign exchange.

The second is the argument that FDI can hurt inclusive growth in host countries by widening the income distribution gap through labour redundancy arising due to the adoption of new technologies to withstand competition and dynamism (Ravallion, 2018; Pavcnik, 2017; Corak, 2013; Krugman, 2008; IMF, 2007; Ravallion, 2007), and rent-seeking, floundering of domestic firms, and macroeconomic fluctuations (Alvaredo *et al.*, 2013). Additionally, FDI can trigger poverty setbacks in host countries where the masses depend on the natural for subsistence like SSA through pollution and food insecurity. It is in this regard that the IMF (2018; 2016), OCED (2014), World Bank (2013) and UNDP (2011) reckon that unless appropriate political, institutional and economic frameworks are built, the inclusive growth-inducing effect of FDI could prove elusive. Thus, good governance is essential not only for spearheading the inflow of FDI but also for its sustenance, equitable distribution of gains, and economic transformation.

2.1 Developments regarding FDI and governance in Sub-Saharan Africa

Despite the much-emphasized income inequality and environment deterioration dark sides of FDI (Opoku & Boachie, 2020; Dhrifi *et al.*, 2020; Ravallion 2018; Bourguignon, 2017; Piketty, 2014), information gleaned from UNCTAD (2019; 2017) and Cornia and Martorano (2012) indicate that the recent growth gains of Africa have been at the backdrop of significant FDI inflows. Indeed, FDI inflow to SSA has been remarkable in the last two decades—an increase from a modest US\$18 billion in 2004 to US\$98 billion in 2013 though this value fell to US\$54 billion in 2015 (UNCTAD, 2016). Though overall, FDI took an 11 per cent nosedive in 2020 to US\$28 billion from 2019 levels, countries such as Nigeria, South Africa, Ethiopia, Senegal, Rwanda and Mozambique are tipped to recover quickly as top FDI destinations in SSA from 2022 (UNCTAD, 2020). In a setting where capital/savings accumulation is inadequate but the population is youthful and innovative, infrastructure is being developed, and untapped natural resources abound, FDI can be a game-changer in fostering shared prosperity.

Indeed, compared to other regions of the world as we show in Figure 1, FDI inflows to SSA has remained remarkably high since the turn of the Millennium and even after the 2008/09 global financial meltdown.

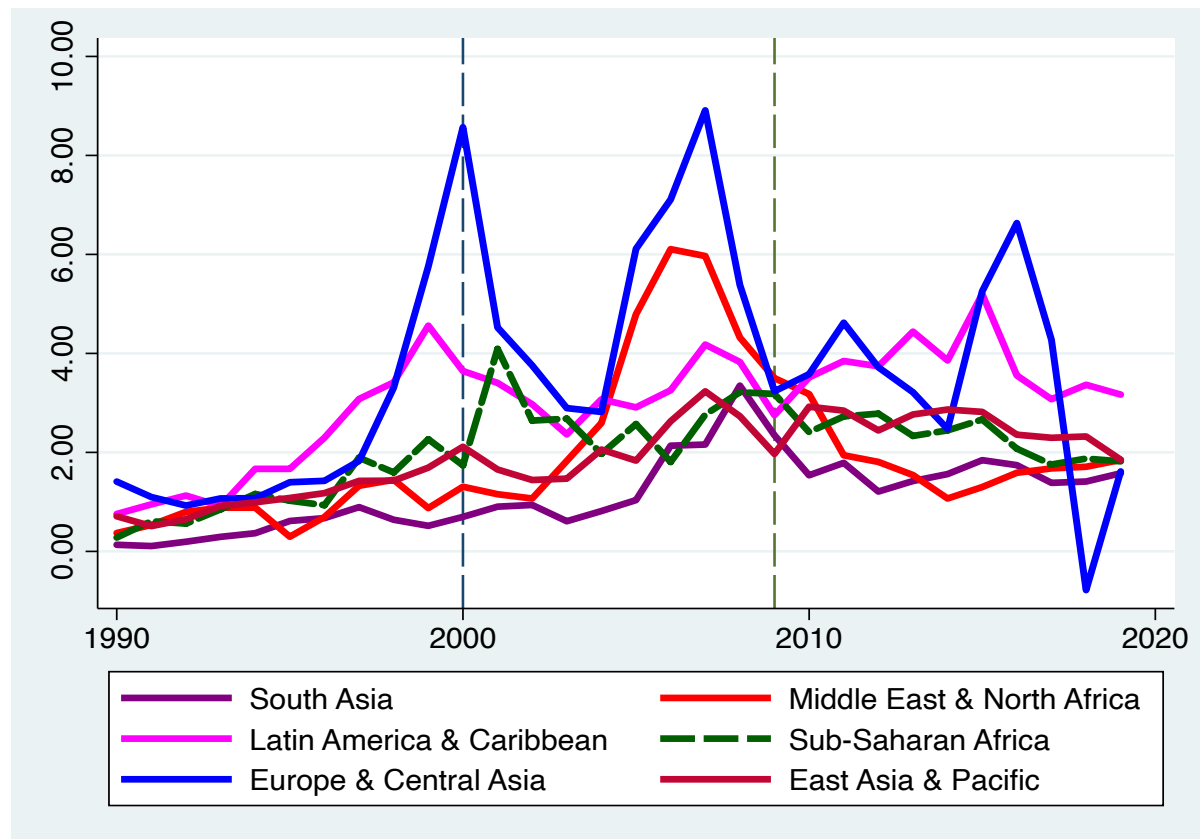


Figure 1: Trend of FDI Inflow (%GDP) Across Regions, 1990 – 2020

And with FDI inflow to the region set to rebound in 2022 following the implementation of the AfCFTA and finalisation of its attendant Investment Protocol, grounds are fertile for SSA to pursue a growth trajectory that is durable and shared. For instance, the potential of FDI in bridging SSA's marked income inequality gap is seen in Sharma and Abekah (2017) who argue that the marginal gains in income equality in South America could be attributed to the (i) remarkable contribution of FDI to technological spillover, improved domestic productivity, and employment. Similar evidence is that of Xu *et al.* (2021) who find that FDI reduces income inequality in sub-Saharan African. Additional support is seen in Gohou and Soumaré (2012) and Gossel (2018) who find that FDI contributes to poverty alleviation and human development in SSA. Also relevant for inclusive growth is the finding that FDI (i) reduces infant mortality in South Africa (Magombeyi & Odhiambo, 2017), a key driver of human capital development in SSA (Anetor *et al.*, 2020) and economic welfare (Fauzel *et al.*, 2015).

Despite these direct encouraging effects of FDI on income inequality or economic growth, greater socioeconomic sustainability gains could be chalked if strong institutional

frameworks/structures and good infrastructure are in place to repackage or form relevant synergies with FDI to contribute to inclusive growth. For instance, while Kunawotor *et al.* (2020) find that strong institutional governance (i.e., control of corruption and rule of law) are crucial for yielding short-term and long-term income equality dividends, Kang and Martinez-Vazquez (2021) attribute such gains to infrastructure quality. A similar argument is found in Nguyen (2021), Adeleke (2014) and Adams *et al.* (2016) who contend that effective regulatory regimes are imperative not only for spurring but propelling FDI to contribute to equitable income distribution and environmental sustainability.

However, in the face of poor economic, political and institutional governance as we show in Figure A.1 based on data from the World Governance Indicators, though FDI can contribute to economic growth, it could widen the income disparity gap, potentially hurting social progress or inclusive growth overall. For instance, information gleaned from Figure A.1 indicates that although countries such as Namibia, Botswana, Angola, Seychelles, Cape Verde, Mauritius and South Africa have made remarkable strides in the various facets of governance, lags are conspicuous in most of the countries, especially, in Burundi, Sudan, Guinea-Bissau and the Democratic Republic of Congo. In settings like this, though the positive relationship between FDI and inclusive growth as presented in Figure 2 is probable, the negative relationships between all the governance indicators and inclusive growth could play out to yield an overall negative effect. Per the reference/threshold value of zero (0) for the governance indicators, the graphical relationships indicate that it will take a significant amount of effort for SSA's institutional fabric to contribute meaningfully to shared prosperity. These issues are also addressed later in the study by way of policy threshold analysis.

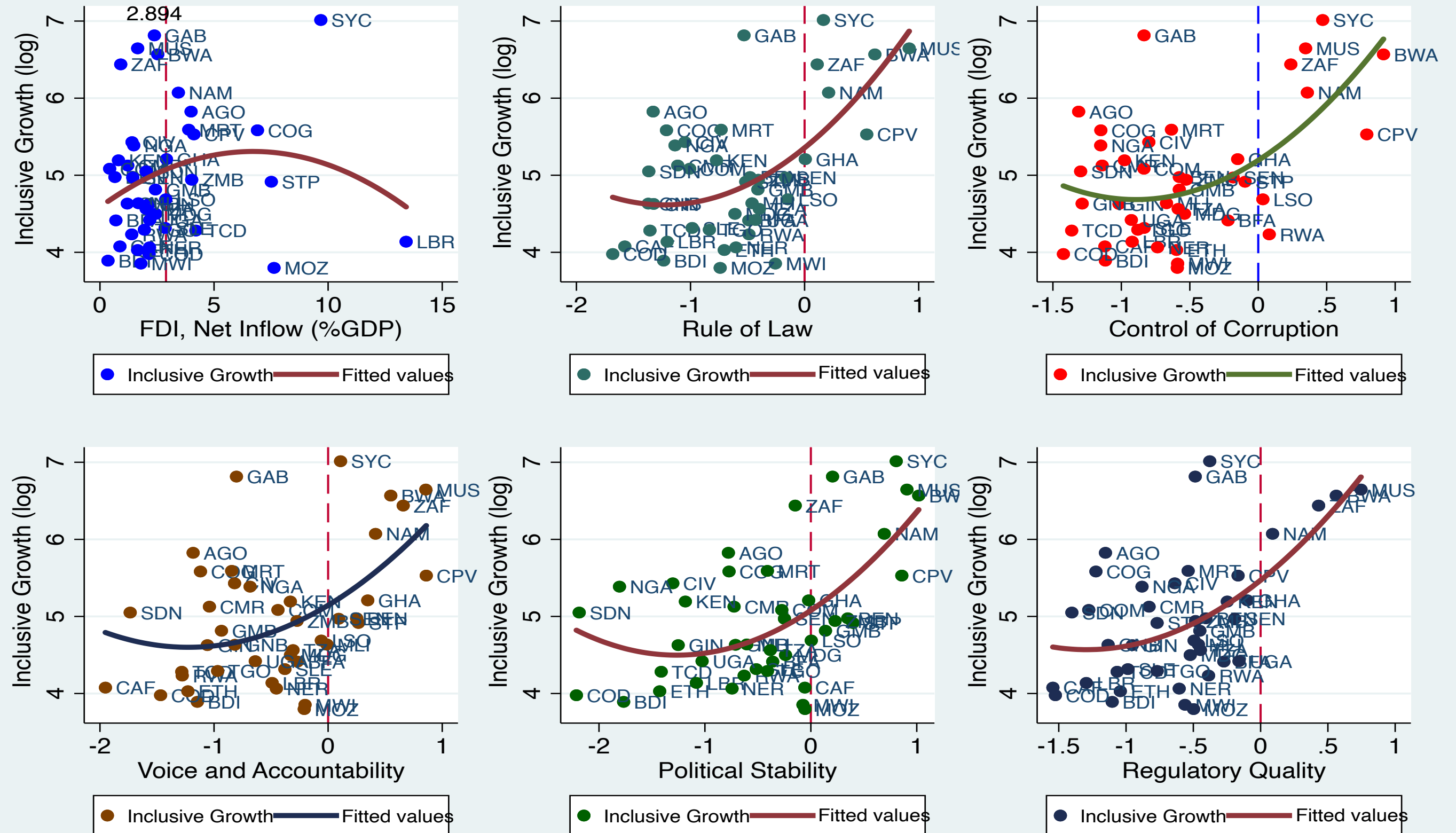


Figure 2: FDI-Inclusive Growth and Governance-Inclusive Growth Relationships in SSA, 1990 – 2020.

3.0 Data and methodology

3.1 Data

The study employs macro data spanning 1990 – 2020 for a sample of 42 SSA countries⁵ for the analysis. Data on the outcome variable, inclusive growth, are generated following the approach⁶ of Anand *et al.* (2013). The approach integrates income growth and distribution in a unified manner using the absolute definition (i.e., GDP per capita) and relative definition (Gini index) of inclusive growth (Anand *et al.*, 2013; Obeng *et al.* 2021; Ofori & Asongu, 2021a). There are some missing observations in the latter, which we take care of using data from the Global Consumption and Income Project (Lahoti *et al.* 2016). We check the robustness of our estimates by computing another measure of inclusive growth using the Principal Component Analysis (PCA). The approach, which we elaborate in Section 4.4 is based on the Asian Development Bank (2013) framework of assessing inclusive growth from the social inclusion and protection perspectives.

The independent variable of interest in this study is FDI and is measured as the net inflows as a percentage of GDP. Our moderator is governance, captured by six (6) key indicators—*rule of law, control of corruption, regulatory quality, governance effectiveness, political stability, and voice and accountability*. The study controls for covariates such as vulnerable employment, inflation, human capital, ICT access and financial development to take into account the: (i) highly informal real sector of SSA (ii) rise in ICT diffusion in SSA, and (iii) the mitigation of omitted variable bias. The motivation for the selection of these controls in the conditioning information set is discussed in what follows.

The choice of vulnerable employment centres on the real sector of the economies considered in this study. Individuals in vulnerable employment avenues lack social protection and consistent inflow of earnings, meaning that widespread precarity can intensify unequal income growth, income inequality and hence, non-inclusive growth. As Ofori (2021) reckon, since the poor are more vulnerable to employment shocks compared to the rich, increasing vulnerability to unemployment is likely to have a more negative incidence on the incomes of the poor and by extension, reduce inclusive growth. Also, the choice of inflation centres on the recurrent macroeconomic instability of SSA and the fact that inflation hurts the poor more since

⁵Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo DR., Congo, Cote d'Ivoire, Ethiopia, Gabon, The Gambia, Guinea, Ghana, Guinea Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Sudan, South Africa, Tanzania, Togo, Uganda, Zambia.

⁶ See pages 5 – 9 of “Anand *et al.* 2013” :<https://www.imf.org/external/pubs/ft/wp/2013/wp13135.pdf>

a significant fraction of their incomes is spent on consumables (Ofori *et al.* 2021a; Ofori *et al.* 2018). We pay attention to financial development since it has the power to promote shared growth by cushioning households and firms to exit poverty by providing financial products, services and opportunities to existing as well as new bank customers (De Haan *et al.*, 2021). Contingent on new customers emanating from the poorer fraction of the population, in the light of the extensive margin theory (Tchamyu *et al.*, 2019), financial deepening is likely to boost inclusive growth by supporting the huge informal sector of SSA to realise innovative ideas, expand, withstand competition, and adapt to the growing open innovation being driven by ICTs (De Haan *et al.* 2021; Asongu & Odhiambo, 2018; Asongu & Nwachukwu, 2017). Taking cues from Ofori and Asongu (2021), Ofori *et al.* (2021c) and Asongu and Odhiambo (2019), we consider ICT access, which is expected to boost inclusive growth by providing the masses impartial access to information, opportunities as well as incentivisation and sustenance of FDI. But for financial development and the governance indicators, which are sourced from the International Monetary Fund's Financial Development Index (Svirydzenka 2016) and the World Bank's World Governance Indicators (Kaufmann *et al.*, 2010), respectively, all the variables are drawn from the World Development Indicators (World Bank, 2021). A detailed description of these variables is presented in Table 1 and that of the pairwise correlations in Table A.1.

Table 1: Variables' descriptions and sources

| Variables | Descriptions | Sources |
|---------------------------|--|-----------|
| Inclusive Growth | Income growth and distribution approach by Anand <i>et al.</i> (2013) | Authors |
| Gini | Gini income (0 = Lowest; 1 = Highest) | WDI; GCIP |
| GDP per capita | Real GDP divided by population | WDI |
| Financial development | Financial development index capturing the depth, access, and efficiency of financial institutions and markets | Findex |
| Foreign Direct Investment | Net foreign direct inflow (%GDP) | WDI |
| Inflation | Consumer price index (2010=100) | WDI |
| Vulnerable employment | Total contributing family and own-account workers as a share of total employment | WDI |
| ICT access | Fixed telephone subscriptions (per 100 people) | WDI |
| Rule of law | captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence | WGI |
| Control of corruption | Captures perceptions of the public on the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. | WGI |

| | | |
|--------------------------|---|-----|
| | (estimate) | |
| Government effectiveness | Perception on the effectiveness of governments in managing and introducing policies aimed at economic growth and development (estimate) | WGI |
| Regulatory quality | Captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. | WGI |
| Political stability | Measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. | WGI |
| Voice and accountability | Captures perceptions of the extent to which a country's citizens participate in selecting their government, as well as freedom of expression, freedom of association, and free media. | WGI |

Note: WDI is World Development Indicators; Findex is IMF's Financial Development Index; GCIP is Global Consumption and Income Project; WGI is World Government Indicators.

3.2 Estimation strategy

The study rests on the intuition that FDI can foster inclusive growth by generating equitable income growth and distribution opportunities. The FDI-governance relationship also stems from the argument that shared prosperity thrives on good governance, which requires stronger institutions, mechanisms and processes that level the playing field for the masses to benefit not only from economic integration but several facets of national development (OECD, 2016; World Bank, 2013; Asian Development Bank, 2013; Acemoglu & Robinson, 2012; UNDP, 2011). The empirical strategy, therefore, focuses on the presentation of the conditional and unconditional pathways through which FDI affects inclusive growth in SSA.

We begin by specifying a baseline model where only the control variables enter the model. Next, in line with objective 1 of the study, we introduce FDI and our governance dynamics— rule of law, control of corruption, regulatory quality, governance effectiveness, political stability, and voice and accountability in the model. Finally, per our hypothesised joint effect of FDI and good governance on inclusive growth, a pairwise interaction between FDI and the various governance dynamics are introduced in the model. Our baseline model is specified as follows:

$$ingrowth_{it} = \lambda_0 + \delta_1 ingrowth_{it-1} + \beta_1 hci_{it} + \beta_2 ict_{it} + \beta_3 inf_{it} + \beta_4 vul_{it} + \beta_5 fdev_{it} + J_i + \mu_t + \varepsilon_{it} \quad (1)$$

We proceed by modifying Equation (1) to capture the conditional and unconditional effects of FDI on inclusive growth as seen in Equation (2):

$$ingrowth_{it} = \lambda_0 + \delta_1 ingrowth_{it-1} + \beta_1 hci_{it} + \beta_2 ict_{it} + \beta_3 inf_{it} + \beta_4 vul_{it} + \beta_5 fdev_{it} + \beta_6 fdi_{it} + \beta_7 gov_{it} + \beta_8 \ln(fdi_{it} \times gov_{it}) + J_i + \mu_t + \varepsilon_{it} \quad (2)$$

Where *ingrowth* is log difference of inclusive growth; *hci* is human capital index; *vul* is vulnerable employment; *inf* is inflation; *ict* is ICT access and *fdev* is financial development. Also, *fdi* is foreign direct investment; *gov* is our governance⁷ indicator decomposed into *rule of law*, *control of corruption*, *regulatory quality*, *governance effectiveness*, *political stability*, and *voice and accountability*; *i* is country; *t* is time; *J_i* is the country-specific effects; and *ε_{it}* is the idiosyncratic error term.

Though in this case, the dynamic ordinary least squares, for instance, can be applied to test our hypotheses as Stock and Watson (1993) argue, we opt for the dynamic system GMM of Arellano and Bond (1995) on grounds of some endogeneity concerns, which if unresolved can bias our estimates. The endogeneity concern arises since (i) past values of income inequality could have a strong relationship with present income inequality values (Ofori *et al.*, 2021a; Ofori, 2021), and (ii) there is an established simultaneity between shared growth and financial development as spelt out in the finance-led hypothesis (Schumpeter, 1911; Levine, 2005) and growth-led hypotheses (Robinson, 1952). Regarding the former, the endogeneity problem arises because *ingrowth_{it-1}* depends on *ε_{it-1}*, which also depends on the country-specific impact *ε_i*. Additional caveats for applying the dynamic system GMM estimator is that the sampled countries (i.e., N) used in the study exceeds the time period in each cross-section (i.e., T) (see Ofori & Grechyna, 2021; Tchamyou, 2019b; Asongu & Nwawchukwu, 2016), and the panel dataset also reveals cross-country variation, which is accounted for in GMM estimation⁸ (see Ofori *et al.* 2021d).

Accordingly, we follow Ofori and Grechyna (2021); and Tchamyou (2019a) by transforming Equation (2) into Equations (3) and (4) to capture the level and first difference specifications, which encapsulate the dynamic system estimation method:

$$ingrowth_{it} = \lambda_0 + \delta_1 ingrowth_{it-1} + \beta_1 fdi_{it} + \beta_2 gov_{it} + \sum_1^5 \theta_k V_{kit-\tau} + J_i + \mu_t + \varepsilon_{it} \quad (3)$$

⁷ Our governance variables are introduced stepwisely in the model.

⁸ In estimating the system GMM model, we rely on the lags of the regressors as the instruments for the difference equation, and the first difference of the regressors for the level equation.

$$ingrowth_{it} - ingrowth_{it-\tau} = \delta_1(ingrowth_{it-\tau} - ingrowth_{it-2\tau}) + \beta_1(fdi_{it} - fdi_{it-\tau}) + \beta_2(gov_{it} - gov_{it-\tau}) + \sum_1^5 \theta_k(V_{kit-\tau} + V_{kit-2\tau}) + (\mu_t - \mu_{it-\tau}) + (\varepsilon_{it} - \varepsilon_{it-\tau}) \quad (4)$$

Next, to capture the hypothesised joint effect of FDI and governance on inclusive growth, Equation (4) is modified to obtain Equation (5).

$$ingrowth_{it} - ingrowth_{it-\tau} = \delta_1(ingrowth_{it-\tau} - ingrowth_{it-2\tau}) + \beta_1(fdi_{it} - fdi_{it-\tau}) + \beta_2(gov_{it} - gov_{it-\tau}) + \beta_3(fdi \times gov_{it} - fdi \times gov_{it-\tau}) + \sum_1^5 \theta_k(V_{kit-\tau} + V_{kit-2\tau}) + (\mu_t - \mu_{it-\tau}) + (\varepsilon_{it} - \varepsilon_{it-\tau}) \quad (5)$$

The computation of the resultant net effects from the FDI-governance interactions is expressed in Equation (6) as:

$$\frac{\partial(ingrowth_{it} - ingrowth_{it-\tau})}{\partial(fdi_{it})} = \beta_1 + \beta_3 \overline{gov_{it}} \quad (6)$$

where \overline{gov} is the mean of each governance indicator, and V_k is a vector of our 5 control variables. We point out, however, that the appropriateness of the GMM estimator in yielding robust estimates as Ofori *et al.* (2021e), and Tchamyou (2019b) reckon, depends on the validity of the instruments which we test using Hansen's test of overidentification. The Hansen test is evaluated based on the null hypothesis of no correlation between the set of identified instruments and the residuals. Therefore, failure to reject the null hypothesis signifies the appropriateness of the instruments and thus the robustness of the attendant estimates, and otherwise if the null hypothesis is rejected. Additional post-estimation tests of: (i) whether there is evidence of second-order serial correlation in the residuals or not; (ii) the significance of the interaction terms; and (iii) the Wald test for the overall model significance are also employed to ascertain the reliability of our estimates.

4.0 Results and discussion

4.1 Summary statistics

In this section, our findings are presented and discussed. We begin the presentation by perusing the data to show the development regarding the variables over the study period. For instance, the data also shows an average vulnerable employment value of 70.92 per cent, which is a clear indication of the precarious nature of employment in SSA. Also, the average values of inflation and ICT access are 58.38 per cent and 2.17 per cent, respectively. Also, though all the mean

values of our governance dynamics are below the average threshold of 0 – an indication of SSA’ weak institutional fabric, marginal gains are glaring in political stability (-0.458), and voice and accountability (-0.485), respectively.

Table 2: Summary statistics of variables, 1990 – 2020

| Variables | Obs | Mean | Std. Dev. | Minimum | Maximum |
|--|------------|-------------|------------------|----------------|----------------|
| <i>Dependent variable</i> | | | | | |
| Inclusive growth | 1722 | 343.708 | 835.271 | 10.834 | 14647.05 |
| GDP per capita | 1721 | 3821.828 | 4402.161 | 436.72 | 29223.465 |
| Gini index | 1489 | 0.601 | 0.057 | 0.441 | 0.868 |
| <i>Key Independent variable</i> | | | | | |
| FDI | 1722 | 2.894 | 6.392 | -28.624 | 103.337 |
| <i>Control variables</i> | | | | | |
| Financial development | 1628 | 0.131 | 0.086 | 0.013 | 0.648 |
| Vulnerable employment | 1722 | 70.927 | 22.867 | 8.826 | 94.759 |
| Inflation | 1719 | 58.484 | 46.443 | 0.000 | 410.94 |
| Human capital | 1719 | 0.395 | 0.071 | 0.293 | 0.678 |
| <i>Moderating variables</i> | | | | | |
| Control of corruption | 860 | -0.581 | 0.595 | -1.423 | 0.915 |
| Political stability | 881 | -0.458 | 0.811 | -2.213 | 1.018 |
| Regulatory quality | 881 | -0.610 | 0.528 | -1.543 | 0.746 |
| Rule of law | 881 | -0.632 | 0.608 | -1.682 | 0.917 |
| Voice and accountability | 881 | -0.485 | 0.689 | -1.952 | 0.860 |
| Government effectiveness | 881 | -0.608 | 0.595 | -1.450 | .8877 |

Note: Obs is Observation and Std. Dev. is Standard deviation

For FDI, the data shows a mean value of 2.894 as a percentage of SSA’s gross output. The in-country scrutiny as apparent in Panel A of Figure 3 shows that FDI occupies a respectable share of the GDP of SSA countries, chief of which are Liberia, Mozambique, Seychelles, Congo Republic, Cape Verde, Angola and São Tomè and Príncipe. Further, the data reveal an average GDP per capita of US\$3819.61, which is conspicuously higher than that of inclusive growth (i.e., US\$ 343.71). While overall, this indicates a case of non-inclusive growth trajectories, the in-country developments as we show in Panel B of Figure 2 shows that the concern is marked in countries such as Angola, Botswana, Mauritius, Namibia, Gabon, Seychelles, and South Africa.

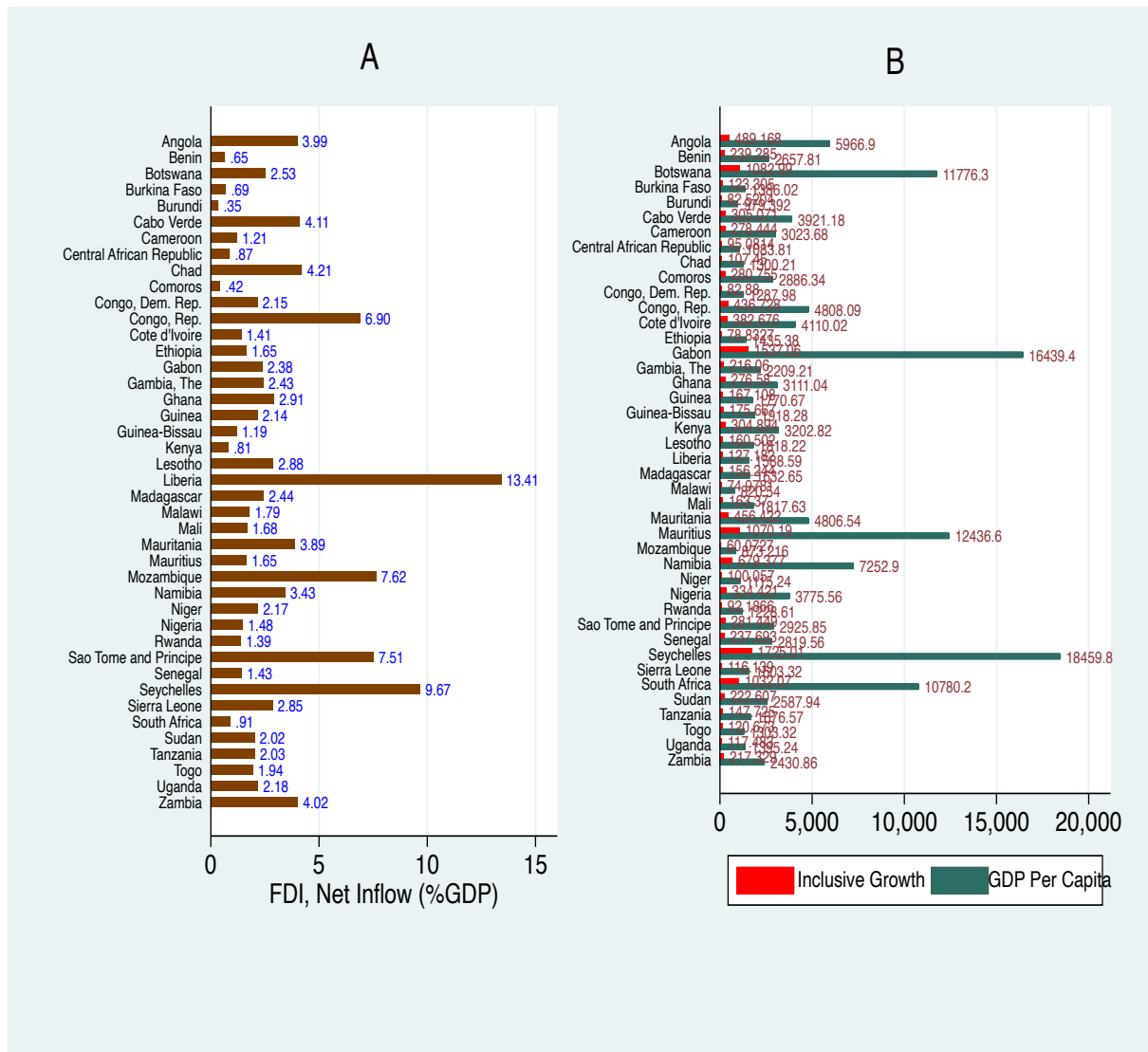


Figure 2: Average FDI, Inclusive Growth and GDP Per Capita in Sub-Saharan Africa, 1990 – 2020.

4.2 Main results: effect of FDI and governance on inclusive growth in sub-Saharan Africa

In this section, our main results on the effects of governance and FDI on inclusive growth in SSA based on the Anand *et al.* (2013) measure are presented (see Table 3). These estimates are based on the system GMM estimator. Our baseline results in Column 1 show that both inflation and vulnerable employment are inimical to inclusive growth (i.e., socioeconomic sustainability) though the effects are modest.

Table 3: Results on the effects of FDI and governance on inclusive growth in sub-Saharan Africa (Dependent variable: Inclusive growth)

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
|-----------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Inclusive growth (lag) | 0.8068*** (0.0076) | 0.8228*** (0.0094) | 0.8430*** (0.0105) | 0.8752*** (0.0042) | 0.8667*** (0.0078) | 0.8667*** (0.0052) | 0.8615*** (0.0046) | 0.8696*** (0.0057) | 0.8094*** (0.0103) | 0.8622*** (0.0049) | 0.7972*** (0.0132) | 0.8267*** (0.0058) | 0.8314*** (0.0054) | 0.8304*** (0.0113) |
| Vulnerable employment | -0.0029*** (0.0004) | -0.0028*** (0.0006) | -0.0044*** (0.0011) | -0.0023*** (0.0004) | -0.0018*** (0.0004) | -0.0018*** (0.0003) | -0.0022*** (0.0004) | -0.0020*** (0.0003) | -0.0033*** (0.0007) | -0.0019*** (0.0005) | -0.0027*** (0.0005) | -0.0023*** (0.0006) | -0.0021*** (0.0006) | -0.0018*** (0.0007) |
| Inflation | -0.0003*** (0.0000) | -0.0010*** (0.0001) | -0.0003*** (0.0001) | 0.0001** (0.0000) | 0.0001 (0.0001) | 0.0001** (0.0001) | 0.0000 (0.0000) | 0.0000 (0.0001) | -0.0002** (0.0001) | -0.0001 (0.0001) | -0.0001 (0.0001) | -0.0000 (0.0000) | -0.0001* (0.0001) | -0.0002** (0.0001) |
| Human capital | 0.8659*** (0.2074) | 0.9335*** (0.3358) | 0.1681 (0.4047) | 0.1539 (0.1387) | 0.4400*** (0.0949) | 0.6184** (0.2688) | 0.3549** (0.1567) | 0.3443 (0.3375) | 0.6173*** (0.0952) | 0.4498*** (0.0933) | 0.0561 (0.3725) | 0.1158 (0.2648) | 0.3195 (0.4286) | 0.4170 (0.3672) |
| ICT access | 0.0043 (0.0030) | 0.0015 (0.0042) | 0.0251*** (0.0041) | 0.0143*** (0.0038) | 0.0155*** (0.0013) | 0.0199*** (0.0030) | 0.0165*** (0.0024) | -0.0002 (0.0028) | 0.0310*** (0.0069) | 0.0168*** (0.0053) | 0.0261*** (0.0050) | 0.0256*** (0.0049) | 0.0143*** (0.0042) | 0.0034 (0.0050) |
| Financial development | 0.1104* (0.0560) | 0.1114 (0.1905) | 0.1675* (0.0989) | 0.1315** (0.0569) | 0.0430 (0.0851) | 0.0268 (0.0322) | 0.0209 (0.0825) | 0.1768* (0.1040) | 0.1077 (0.1153) | 0.1562* (0.0879) | 0.1204 (0.0980) | 0.2146* (0.1141) | 0.0407 (0.0789) | 0.0704 (0.0597) |
| FDI | | 0.0252*** (0.0041) | | | | | | | 0.0238*** (0.0039) | 0.0036*** (0.0010) | 0.0497*** (0.0050) | 0.0252*** (0.0031) | 0.0054** (0.0023) | 0.0164*** (0.0012) |
| Corruption control | | | 0.2269** (0.0949) | | | | | | -0.0118 (0.0629) | | | | | |
| Political stability | | | | 0.0990*** (0.0158) | | | | | | 0.0177* (0.0100) | | | | |
| Regulatory quality | | | | | 0.1451*** (0.0156) | | | | | | 0.0181 (0.0202) | | | |
| Rule of law | | | | | | 0.1512*** (0.0131) | | | | | | 0.0200 (0.0141) | | |
| Voice and accountability | | | | | | | 0.1195*** (0.0171) | | | | | | 0.0387* (0.0220) | |
| Gov. effectiveness | | | | | | | | 0.0003*** (0.0001) | | | | | | 0.0004*** (0.0001) |
| FDI × Corruption control | | | | | | | | | 0.0613*** (0.0056) | | | | | |
| FDI × Political stability | | | | | | | | | | 0.0282*** (0.0023) | | | | |
| FDI × Regulatory quality | | | | | | | | | | | 0.0700*** (0.0061) | | | |
| FDI × Rule of law | | | | | | | | | | | | 0.0465*** (0.0033) | | |
| FDI × Voice and accountability | | | | | | | | | | | | | 0.0542*** (0.0037) | |
| FDI × Gov. effectiveness | | | | | | | | | | | | | | 0.0832*** (0.0101) |
| Constant | 0.8443*** (0.1170) | 0.6982*** (0.1964) | 0.8156*** (0.1377) | 0.7492*** (0.0495) | 0.8239*** (0.0587) | 0.9026*** (0.1057) | 0.8815*** (0.0716) | 0.5378*** (0.1105) | 0.8412*** (0.0778) | 0.5419*** (0.0630) | 1.1882*** (0.1264) | 0.9236*** (0.0983) | 0.7544*** (0.1514) | 1.0686*** (0.1677) |
| Observations | 1,260 | 1,260 | 860 | 881 | 881 | 881 | 881 | 881 | 860 | 881 | 881 | 881 | 881 | 838 |
| Countries/Instruments | 42/39 | 42/39 | 41/39 | 42/39 | 42/39 | 42/39 | 42/39 | 42/39 | 41/39 | 42/39 | 42/39 | 42/39 | 42/39 | 42/39 |
| Net-effect | — | — | — | — | — | — | — | — | -0.0118 | -0.0093 | 0.007 | -0.0041 | -0.0209 | -0.0342 |
| Joint Sign. Test Stats. [P-value] | — | — | — | — | — | — | — | — | 9.71[0.013] | 7.34[0.012] | 20.1[0.000] | 7.03[0.011] | 5.93[0.019] | 50.01[0.00] |
| Wald statistic | 375653*** | 2.060e+07*** | 88763*** | 129923*** | 2.130e+06*** | 1.009e+06*** | 1.009e+06*** | 721707*** | 52960*** | 596023*** | 590232*** | 470950*** | 80760*** | 429089*** |
| Wald P-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Hansen P-Value | 0.338 | 0.311 | 0.792 | 0.470 | 0.406 | 0.359 | 0.488 | 0.461 | 0.537 | 0.563 | 0.525 | 0.432 | 0.615 | 0.436 |
| AR(1) | 0.000 | 0.000 | 0.005 | 0.002 | 0.002 | 0.003 | 0.003 | 0.002 | 0.004 | 0.003 | 0.001 | 0.002 | 0.004 | 0.001 |
| AR(2) | 0.662 | 0.683 | 0.250 | 0.184 | 0.235 | 0.135 | 0.179 | 0.160 | 0.270 | 0.173 | 0.171 | 0.244 | 0.127 | 0.803 |

Year fixed effects are included in all the regressions and the models follow a two-step process in order to account for heteroscedasticity. Standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

However, we find that human capital development and financial development are inclusive growth-enhancing. The magnitudes of the coefficients show that for every 1 per cent improvement in human capital and financial development of SSA, inclusive growth is enhanced by a remarkable 0.86 per cent and 0.11 per cent, respectively. Though we do not find statistical significance for ICT access as in the case of Ofori and Asongu (2021), it is positively associated with inclusive growth.

That said, we shift focus to our first objective. The results show that FDI inflow contributes to shared income growth and distribution in SSA. The effect, however, is modest (0.02%), suggesting that there are untapped avenues for FDI to contribute to the region's quest for inclusive growth. Indeed, with FDI inflows to SSA projected to recover in 2022 following the implementation of the AfCFTA, it could contribute to equitable income and social inclusion through employment and social inclusion. This is plausible considering the potency of FDI in (1) augmenting host countries' productive capacity, and (2) accelerating industrial sector revival or revolution through technological transfer, innovation, and enhanced global value chain participation, and (3) infrastructural development (Sakyi & Egyir., 2017; Adams *et al.*, 2016).

Also, our results in Columns 3 – 8 provide evidence on the relevance of governance in fostering inclusive growth in SSA. We find that our institutional governance measures of corruption control and rule of law are remarkable in spurring inclusive growth in SSA. While the latter induces shared prosperity by 0.15 per cent, the former enhances inclusive growth by 0.11 per cent. This suggests that to foster inclusive growth in SSA, institutional frameworks that protect rights, liberties and the protection of the public purse are worthwhile for ensuring that public resources are channelled to the benefit of all. On economic governance, we provide strong empirical evidence to show that for every 1 per cent improvement in regulatory quality, and governance effectiveness, the region enhances its inclusive growth gains by 0.08 per cent and 0.04 per cent, respectively. The results suggest that building a conducive environment—one that ensures macroeconomic stability, eases the burden of doing business while supporting private sector growth and innovation are also crucial for propelling SSA towards shared prosperity. The results also signify that for the expected inclusivity potential of FDI to be realised, the effectiveness of the State in shaping markets, influencing investment opportunities, and building a conducive macroeconomic atmosphere for the private sector to invest and innovate will be crucial. Similarly, for our political governance indicators of political stability, and voice and accountability, we report a rise in inclusive growth of 0.01 per cent and

0.09 per cent, respectively. This finding also suggests that addressing SSA's ever-lingering problems of political manipulation while incorporating the concerns, wills and opinions of the media and civil society in decision-making are also crucial for building social cohesion and inclusive growth.

These developments usher us into the second objective where we examine whether these governance dynamics forms relevant synergies with FDI to contribute to shared growth in SSA. We find that, overall, SSA's weak institutional fabric as clearly illustrated in Figure A.1 either weakens or dampens the modest inclusive growth-inducing effect of FDI. Specifically, while regulatory quality reduces the positive effect of FDI, the remaining five—political stability, corruption control, rule of law, governance effectiveness, and voice and accountability nullify completely the weak marginal effects of FDI to yield negative net effects. First, SSA's weak regulatory regime brings into light the harmful effects of FDI on inclusive growth. We report a net effect of 0.007 per cent for the FDI-regulatory quality pathway (Columns 11), which is conspicuously lower than the unconditional effect of FDI (0.0497%). This net effect is computed based on Equation (6) as:

$$\frac{\partial(ingrowth_{it} - ingrowth_{it-\tau})}{\partial(fdi_{it})} = 0.0497 + [(0.07) \times (-0.610)] = 0.007$$

where 0.0497 is the direct effect of FDI on inclusive growth, 0.07 denotes the conditional effect of FDI on inclusive growth, and -0.610 is the mean value of regulatory quality as apparent in Table 2. Additionally, we find some interesting pieces of evidence that ordinarily would be hidden if disaggregated-level scrutiny/investigation as has been carried out in this study is not pursued. This stems from the fact that all the remaining 5 fragile governance modules of SSA—corruption control, political stability, rule of law, governance effectiveness, and voice and accountability, instead, quash the marginal positive effect of FDI on inclusive growth. Following similar computations as expressed above, we report a net effect of -0.004 per cent for the FDI-rule of law pathway. This is calculated from the results in Column 12, taking into account the direct (0.0252%) and indirect (0.0465%) effects of FDI on inclusive growth and the mean value of rule of law (-0.632).

$$\frac{\partial(ingrowth_{it} - ingrowth_{it-\tau})}{\partial(fdi_{it})} = 0.0252 + [(0.0465) \times -(0.632)] = -0.0041$$

Additionally, while we report a net of -0.011 per cent and -0.034 per cent for the FDI-control of corruption (Column 9), and FDI-government effectiveness pathways (Column 14), respectively, we find -0.009 per cent and -0.021 per cent for the FDI-political stability (Column 10), and FDI-voice and accountability (Column 13) pathways as well. These net effects are computed respectively as follows:

$$\frac{\partial(ingrowth_{it} - ingrowth_{it-\tau})}{\partial(fdi_{it})} = 0.0238 + [(0.0613) \times (-0.581)] = -0.0118$$

$$\frac{\partial(ingrowth_{it} - ingrowth_{it-\tau})}{\partial(fdi_{it})} = 0.0164 + [(0.0832) \times (-0.608)] = -0.0342$$

$$\frac{\partial(ingrowth_{it} - ingrowth_{it-\tau})}{\partial(fdi_{it})} = 0.0036 + [(0.0282) \times (-0.458)] = -0.0093$$

$$\frac{\partial(ingrowth_{it} - ingrowth_{it-\tau})}{\partial(fdi_{it})} = 0.0054 + [(0.0542) \times (-0.485)] = -0.0209$$

The uniqueness of our results is that the marked weak systems, structures and frameworks of SSA in part contribute to the region's non-inclusive growth trajectories even in the face of the remarkable inflow of external finance in the form of FDI. For instance, a weak legal regime can hurt socioeconomic sustainability as it may not guarantee investment returns as it arms political elites the power to interfere in FDI-related innovation, growth and ownership. Another reason is that weak legal systems and poor governance effectiveness may cause foreign investors not to commit to environmental sustainability laws. In the settings like SSA where the masses depend on the immediate environment for subsistence, this can hurt inclusive growth through low agricultural productivity, unemployment and food insecurity. The relevance/seriousness of our results on the FDI-political stability, and FDI-voice and accountability pathways also mean that the recurrent reconstruction of Africa arising due to political takeovers and terrorist groups, and disregards for concerns/views of the masses in socioeconomic decisions can weaken the effect of FDI on social progress. Finally, our results suggest that though grounds are fertile for natural resource-seeking, market-seeking, efficiency-seeking, and strategic asset-seeking investors to take advantage of AfCFTA to profit

and contribute to the region's quest for industrialization, poverty alleviation and income equality, good governance will prove crucial in realising these potential effects.

The auxiliary findings are also in order—a 1 per cent improvement in human capital development and ICT access boosts inclusive growth in SSA by 0.56 per cent and 0.006 per cent, respectively (see Column 10). Indeed, both digital infrastructure and human capital have been found to be effective in enhancing shared prosperity in disadvantaged societies (Ofori & Asongu, 2021; Asongu & Odhiambo, 2020). Be it in the educational sector, civil service, financial service, trade and innovation, prior contributions such as Adeleye *et al.* (2021) and Andrès *et al.* (2017) find that information technologies are being leveraged to foster gender impartial opportunities and inclusive governance. In line with Ofori (2021) and Gyamfi *et al.* (2020), we find that vulnerable employment and inflation are harmful to shared prosperity in SSA. Finally, consistent with Obeng *et al.* (2021), the lag of inclusive growth is remarkably pronounced, signifying that past inclusive growth efforts yield favourable contemporaneous effects. The appropriateness of our estimates lies in their robustness to several diagnostic tests—the absence of instrument proliferation as indicated by the Hansen p-values, the absence of second-order serial correlation in the residuals as apparent in AR (2) statistics, the significance of the interaction terms and models as shown by the Wald statistics and joint significance test statistics, respectively.

4.3 Robustness checks for inclusive growth results

In this section, we evaluate the robustness of our estimates in Table 3 by using a new measure of inclusive growth index generated via the PCA technique. We do so by following the recommendation of the Asian Development Bank (2013) on variables key for driving inclusive growth in the developing world. As we show in Table 4, we use a total of 12 variables taking into consideration the relevance of the real sector, energy supply, social transfers, and income growth and distribution in inclusive growth.

Table 4: Variables used in constructing inclusive growth index

| Variable | Variable Definition | Source |
|-----------------------|--|--------|
| Poverty headcount | International poverty headcount (US\$1.90) | PED |
| GDP per capita | GDP per capita (US\$' 2017 PPP) | WDI |
| Social protection | Effectiveness of institutions for social protection rating (1=low to 6=high) | WDI |
| Electricity access | Electricity access (overall population) | WDI |
| Clean fuel | Access to clean fuels and technologies for cooking is the proportion of the total population primarily using clean cooking fuels and technologies for cooking. | WDI |
| Gini | Income inequality proxied by the Gini index | GCIP |
| Economic freedom | Ease of doing business (estimate) | WDI |
| Health expenditure | Government expenditure on health (%GDP) | WDI |
| Education expenditure | Government expenditure on education (%GDP) | WDI |
| Wages/salaries | Wages and salaried workers (% total employment) | WDI |
| Labour force | Labour force participation rate total (% of total population ages 15-64) | WDI |
| Under-5 Mortality | Under-5 mortality per 1000 live births | WDI |

Note: WDI is World Development Indicators; PED is Poverty and Equity Database. GCIP: Global Consumption and Income Project

Source: Authors' construct, 2021

We present the eigenvalues of the 12 components of inclusive growth in Table 5 while highlighting the key components used in constructing the final index in Figure 4. Per the eigenvalue rule of at least 1 (Tchamyou *et al.* 2019b; Tchamyou, 2020), our inclusive growth index is calculated based on the first three components, which cumulatively explain 62.5 per cent information in our inclusive growth dataset (see Table 5).

Table 5: Principal components eigenvectors (Inclusive growth index)

| Component | Eigenvalue | Difference | Proportion | Cumulative |
|-------------|--------------|--------------|--------------|--------------|
| PC 1 | 4.417 | 2.606 | 0.368 | 0.368 |
| PC 2 | 1.811 | 0.532 | 0.151 | 0.519 |
| PC 3 | 1.279 | 0.321 | 0.107 | 0.625 |
| PC 4 | 0.958 | 0.085 | 0.080 | 0.705 |
| PC 5 | 0.873 | 0.240 | 0.073 | 0.778 |
| PC 6 | 0.633 | 0.049 | 0.053 | 0.831 |
| PC 7 | 0.584 | 0.130 | 0.049 | 0.880 |
| PC 8 | 0.454 | 0.083 | 0.038 | 0.917 |
| PC 9 | 0.371 | 0.095 | 0.031 | 0.948 |
| PC 10 | 0.276 | 0.081 | 0.023 | 0.971 |
| PC 11 | 0.196 | 0.047 | 0.016 | 0.988 |
| PC 12 | 0.148 | . | 0.012 | 1.000 |

Note: PC is Principal Component

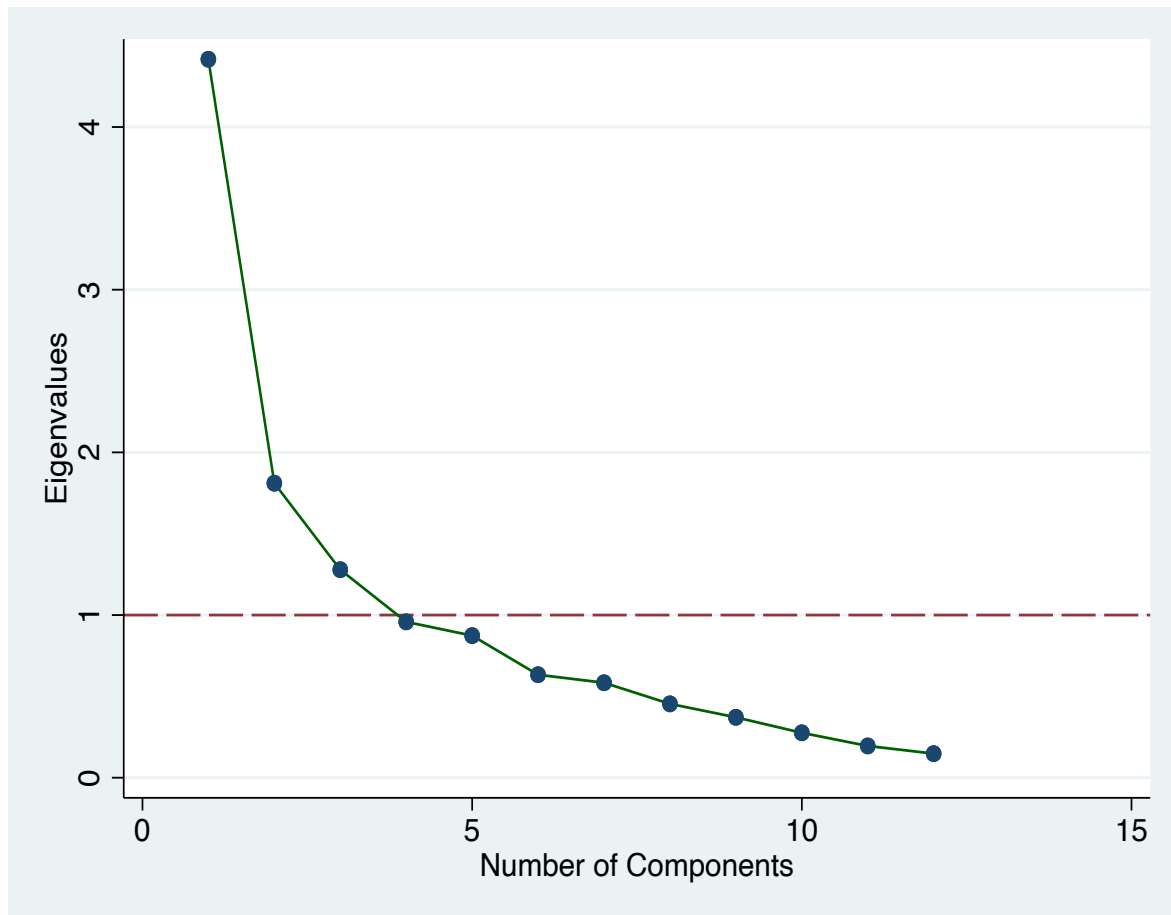


Figure 4: Screeplot of Principal Components of Inclusive Growth

That said, we turn attention to the presentation of our results on the inclusive growth index by first paying particular attention to the baseline results (see Table 6). The results as reported in Column 1 indicate that human capital, financial development, and ICT access are important drivers of inclusive growth in SSA. This evidence aligns with previous empirical works such as Adeleye *et al.* (2021), Tchamyou *et al.* (2019a); Andr  s *et al.* (2017) and Ofori and Asongu (2021). Consistent with our results in Table 3 and similar to Ofori (2021), we find that vulnerable employment and inflation are deleterious to inclusive growth efforts in SSA. Finally, the results show that shared growth momentum gathered in previous years is remarkable for boosting current inclusive growth efforts.

Table 6: Results on the effects of FDI and governance on inclusive growth in sub-Saharan Africa (Dependent variable: Inclusive growth index)

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
|----------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Inclusive growth index (lag) | 1.0341*** (0.0009) | 1.0330*** (0.0020) | 1.0045*** (0.0016) | 1.0412*** (0.0019) | 1.0370*** (0.0031) | 1.0357*** (0.0010) | 1.0338*** (0.0010) | 1.0224*** (0.0020) | 1.0055*** (0.0026) | 1.0376*** (0.0023) | 1.0244*** (0.0022) | 1.0325*** (0.0010) | 1.0351*** (0.0014) | 1.0180*** (0.0023) |
| Vulnerable employment | -0.0004*** (0.0000) | -0.0004*** (0.0000) | -0.0010*** (0.0001) | -0.0008*** (0.0002) | -0.0004*** (0.0001) | -0.0004*** (0.0001) | -0.0004*** (0.0000) | -0.0005*** (0.0001) | -0.0011*** (0.0001) | -0.0009*** (0.0001) | -0.0004*** (0.0001) | -0.0004*** (0.0001) | -0.0005*** (0.0001) | -0.0005*** (0.0001) |
| Inflation | -0.0001*** (0.0000) | -0.0001*** (0.0000) | -0.0001*** (0.0000) | -0.0001* (0.0000) | -0.0001*** (0.0000) | -0.0001*** (0.0000) | -0.0001 (0.0000) | -0.0001 (0.0000) | 0.0001*** (0.0000) | -0.0001 (0.0000) | -0.0001** (0.0000) | -0.0001*** (0.0000) | -0.0001 (0.0000) | -0.0001 (0.0000) |
| Human capital | 0.1211*** (0.0038) | 0.1288*** (0.0048) | 0.0455*** (0.0144) | 0.0499*** (0.0150) | 0.3779*** (0.0274) | 0.0814*** (0.0062) | 0.1264*** (0.0092) | 0.2207*** (0.0085) | 0.0360** (0.0173) | 0.0394** (0.0160) | 0.3467*** (0.0226) | 0.1048*** (0.0093) | 0.1853*** (0.0116) | 0.2202*** (0.0223) |
| ICT access | 0.0015*** (0.0001) | 0.0018*** (0.0003) | 0.0007** (0.0003) | 0.0042*** (0.0007) | 0.0052*** (0.0006) | 0.0010*** (0.0002) | 0.0014*** (0.0003) | 0.0062*** (0.0003) | 0.0005 (0.0004) | 0.0042*** (0.0008) | 0.0044*** (0.0005) | 0.0015*** (0.0003) | 0.0025*** (0.0002) | 0.0070*** (0.0004) |
| Financial development | 0.0157*** (0.0048) | -0.0067 (0.0043) | 0.0886*** (0.0080) | 0.0378*** (0.0109) | 0.1523*** (0.0100) | 0.0331*** (0.0054) | 0.0914*** (0.0091) | 0.0742*** (0.0089) | 0.0815*** (0.0102) | 0.0615*** (0.0134) | 0.1004*** (0.0086) | 0.0157** (0.0062) | 0.0818*** (0.0092) | 0.0991*** (0.0103) |
| FDI | | 0.0012*** (0.0001) | | | | | | | 0.0016*** (0.0001) | 0.0014*** (0.0002) | 0.0034*** (0.0002) | 0.0003*** (0.0001) | 0.0019*** (0.0001) | 0.0022*** (0.0002) |
| Corruption control | | | 0.1091*** (0.0048) | | | | | | 0.1167*** (0.0056) | | | | | |
| Political stability | | | | 0.0617*** (0.0088) | | | | | | 0.0601*** (0.0075) | | | | |
| Regulatory quality | | | | | 0.1113*** (0.0031) | | | | | | 0.0891*** (0.0028) | | | |
| Rule of law | | | | | | 0.0232*** (0.0023) | | | | | | 0.0261*** (0.0036) | | |
| Voice and accountability | | | | | | | 0.0426*** (0.0025) | | | | | | 0.0539*** (0.0034) | |
| Gov. effectiveness | | | | | | | | 0.0002*** (0.0000) | | | | | | 0.0002*** (0.0000) |
| FDI × Corruption control | | | | | | | | | 0.0004* (0.0002) | | | | | |
| FDI × Political stability | | | | | | | | | | 0.0013*** (0.0002) | | | | |
| FDI × Regulatory quality | | | | | | | | | | | 0.0071*** (0.0005) | | | |
| FDI × Rule of law | | | | | | | | | | | | 0.0020*** (0.0002) | | |
| FDI × Voice and accountability | | | | | | | | | | | | | 0.0010*** (0.0003) | |
| FDI × Gov. effectiveness | | | | | | | | | | | | | | 0.0131*** (0.0008) |
| Constant | 0.0272*** (0.0049) | 0.0288*** (0.0038) | 0.0064 (0.0056) | -0.0335*** (0.0073) | -0.0657*** (0.0097) | -0.0271*** (0.0040) | -0.0341*** (0.0042) | 0.1200*** (0.0054) | 0.0083 (0.0053) | -0.0260*** (0.0070) | -0.0702*** (0.0072) | -0.0291*** (0.0043) | -0.0507*** (0.0034) | 0.0631*** (0.0092) |
| Observations | 1,260 | 1,260 | 860 | 881 | 881 | 881 | 881 | 881 | 860 | 881 | 881 | 881 | 881 | 838 |
| Countries/Instruments | 42/39 | 42/39 | 41/39 | 42/39 | 42/39 | 42/39 | 42/39 | 42/39 | 41/39 | 42/39 | 42/39 | 42/39 | 42/39 | 42/39 |
| Net-effect | — | — | — | — | — | — | — | — | 0.0013 | 0.0008 | -0.0009 | -0.0009 | 0.0014 | -0.0057 |
| Joint Sign. Test Stats [P-value] | — | — | — | — | — | — | — | — | 5.88[0.022] | 1531.0[0.00] | 3.67[0.073] | 6.17[0.024] | 3.56[0.077] | 556.4[0.00] |
| Wald statistic | 6.119e+06*** | 8.217e+06*** | 362866*** | 635833*** | 1.809e+06*** | 2.765e+06*** | 1.350e+07*** | 5.806e+06*** | 91094*** | 278643*** | 847437*** | 3.396e+06*** | 2.438e+06*** | 1.068e+06*** |
| Wald P-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Hansen P-Value | 0.557 | 0.382 | 0.535 | 0.438 | 0.458 | 0.388 | 0.499 | 0.487 | 0.499 | 0.401 | 0.399 | 0.306 | 0.554 | 0.350 |
| AR(1) | 0.019 | 0.019 | 0.033 | 0.038 | 0.021 | 0.033 | 0.040 | 0.034 | 0.026 | 0.031 | 0.017 | 0.026 | 0.038 | 0.027 |
| AR(2) | 0.313 | 0.342 | 0.729 | 0.370 | 0.932 | 0.124 | 0.115 | 0.323 | 0.793 | 0.517 | 0.120 | 0.167 | 0.113 | 0.150 |

Year fixed effects are included in all the regressions and the models follow a two-step process in order to account for heteroscedasticity. Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Similar to our results in Table 3, we find a strong but modest effect of FDI on inclusive growth to affirm our first hypothesis. First, the results show that for every 1 per cent increase in FDI inflow to SSA, inclusive growth is enhanced by a modest 0.001 per cent (Column 2). Indeed, the recent momentum of the region has partly been attributed to a quick rebound of FDI into the region after the 2008/09 global financial meltdown (see, UNCTAD, 2019; Cornia & Martorano, 2012). With FDI inflow into SSA set to rebound following the implementation of AfCFTA and the finalization of its attendant investment protocol, our results provide real optimism for riding at the back of trade to create shared opportunities for the teeming youthful population of the region. Our results concur that of Opoku *et al.* (2015), Fauzel *et al.* (2015), and Gohou and Soumaré (2012) that FDI can be an effective channel for building the region's forward and backward linkages, global value chain participation, durable economic opportunities, and poverty alleviation. Second, despite negligible effects, we find that good governance matter for inclusive growth in SSA (Columns 3 – 8). In specifics, we find that for every 1 per cent improvement in political stability, regulatory quality, and rule of law, inclusive growth rises by 0.06 per cent (Column 4), 0.11 per cent (Column 5), and 0.02 per cent (Column 6), respectively. The relevance of voice and accountability, and the fight against corruption are also modest as 1 per cent improvement in these governance indicators fosters shared prosperity in SSA by 0.04 per cent (Column 7) and 0.1 per cent (Column 3), respectively.

In the remit of objective 2, however, we find that the weak institutional fabric of SSA weakens or nullifies completely the positive effect of FDI as we established in our main results. Particularly, the results indicate that three governance modules— regulatory quality, rule of law and government effectiveness nullify the favourable effects of FDI to yield negative net effects. These net effects are -0.0009 per cent, -0.0009 per cent and -0.0057 per cent, respectively. These negative net effects are computed in respective terms as follows:

$$\frac{\partial(ingg_{it})}{\partial(fdi_{it})} = 0.0034 + [(0.0071) \times (-0.610)] = -0.0009$$

$$\frac{\partial(ingg_{it})}{\partial(fdi_{it})} = 0.0003 + [(0.0020) \times (-0.632)] = -0.0009$$

$$\frac{\partial(ingg_{it})}{\partial(fdi_{it})} = 0.0022 + [(0.0131) \times (-0.608)] = -0.0057$$

The remaining governance dynamics, however, weaken the inclusive growth-inducing effect

of FDI. For instance, the results show that SSA's weak frameworks and structures for fighting corruption interact with FDI to weaken the direct of FDI (0.0016%) on shared prosperity to 0.0013 per cent (Column 9). This result is also calculated based on Equation (6) as:

$$\frac{\partial(ingg_{it})}{\partial(fdi_{it})} = 0.0016 + [(0.0004) \times (-0.581)] = 0.0013$$

Likewise, the ineffectiveness of SSA's political regime in addressing the ever-lingering geopolitical frailties of the region dampens the positive effect of FDI (0.0014%) on inclusive to 0.0008 per cent. A similar drag-down effect of 0.0014 per cent is also apparent for the FDI-voice and accountability pathway. We present the calculations in respective fashion in what follows:

$$\frac{\partial(ingg_{it})}{\partial(fdi_{it})} = 0.0014 + [(0.013) \times (-0.458)] = 0.0008$$

$$\frac{\partial(ingg_{it})}{\partial(fdi_{it})} = 0.0019 + [(0.0010) \times (-0.485)] = 0.0014$$

Overall, our findings suggest that SSA's institutions will be key in repackaging the expected rebound of FDI inflow to SSA from 2022 to foster inclusive growth across the region. Further, the evidence we provide suggests that though FDI can spur growth, unless good economic, political and institutional frameworks are strengthened, its plausible inequalities as Ravallion (2018), Bourgiornon (2017), Piketty (2014), and Stiglitz (2012) point out could manifest, dragging inclusive growth down.

For the controls, the results show that while both vulnerable employment and inflation suppress inclusive growth efforts, human capital, ICT access and financial development induce shared prosperity. Particularly, the result on ICT access is positive but weak, implying that there are untapped avenues that can be leveraged in the digital infrastructure domain to create shared income growth and equitable income distribution (Ofori & Asongu, 2021; Adeleye *et al.*, 2021; Asongu & Le Roux, 2017). Albeit moderate effects, our results on vulnerable employment and inflation mean that sustaining durable growth trajectories will also rest on prudent macroeconomic management and the creation of durable employment.

4.4 Governance policy thresholds to foster inclusive growth

In this section, we speak to policy on how improving governance in SSA can turn around the worrying drag-down- and nullifying-moderating effects on inclusive growth for the better. We do this by taking cues from the relationships between our governance dynamics and inclusive growth as presented in Figure 2 and their attendant average values (all negative) as reported in Table 2. That said, we proceed to compute the attendant net effects at these governance thresholds. It is worth noting that these thresholds are computed based on Equation (6) and our pathway estimates reported in Columns 9 – 14 of Table 3 (i.e., main inclusive growth results).

Table 7: Governance thresholds and inclusive growth net effects

| Thresholds | Net Effects | | | | | |
|------------|---------------|--------|---------------|--------|--------|---------------|
| | CC | PS | RG | RL | VA | GE |
| 0 | 0.0238 | 0.0036 | 0.0497 | 0.0252 | 0.0054 | 0.0164 |
| 0.5 | 0.0544 | 0.0177 | 0.0847 | 0.0484 | 0.0325 | 0.0580 |
| 1.0 | 0.0851 | 0.0318 | 0.1197 | 0.0717 | 0.0596 | 0.0996 |
| 1.5 | 0.1157 | 0.0459 | 0.1547 | 0.0949 | 0.0867 | 0.1412 |

Note: CC: Control of corruption; PS: Political stability; RG: Regulatory quality; RL: Rule of law; VA: Voice and Accountability; GE: Government Effectiveness

The optimism from the threshold analysis as reported in Table 7 for African leaders and their development partners is that by improving the various governance modules to the reference point of zero (0) (see Figure 2), the dampening or nullifying effects are mitigated completely. Additional gains are then apparent as governance levels improve from the short-term (0.5) to medium-term (1.0) and the long-term (1.5).

The relevance of these policy thresholds is that policymakers are assured of their attendant inclusive growth dividends if efforts and resources are channelled into the development of the various governance dynamics. Even in the event of resources constraints, policymakers are informed that three key governance dynamics—control of corruption, regulatory quality and governance effectiveness should be targeted considering their remarkable short-term, medium-term, and long-term inclusive growth-moderating effects. As alluded to above, these three governance indicators appeal to logic considering the high levels of precarity, corruption and the seeming ineffectiveness of policymakers in mapping out strategies that support social inclusion, protection and economic freedom (Batuo & Asongu, 2015).

5.0 Conclusion, policy recommendations and future research directions

This study contributes to the debate on how policymakers can foster inclusive growth in SSA. The novelty of this paper is that we examine how the FDI and governance relationship plays out to affect inclusive growth in SSA. Our attention on FDI is informed by its expected rebound to SSA from 2022 and the unanimous voice of African leaders to build shared prosperity through trade, evidence of which is the implementation of the AfCFTA. Additionally, we pay attention to the moderating role of governance considering SSA's weak institutional fabric and the observation by the United Nations (see SDG 16) and the African Union (see Aspirations 3 and 4) that good governance forms the pivot on which the achievement of both sustainable development rests. Our empirical analysis is based on annual macrodata for 42 SSA countries for the period 1996 – 2020 and has generated some major findings

The results reveal the following: (1) though FDI fosters inclusive growth in SSA, the effect is weak, (2) the fragile institutional quality of SSA dampens or nullifies completely the weak effects of FDI on inclusive growth, and (3) vis-à-vis other governance modules, the nullifying effects of corruption control, governance effectiveness, and voice and accountability are outstanding. Nonetheless, the optimism which we provide by way of threshold analysis shows that channelling resources or efforts into the development of these governance dynamics yield positive net effects from the short-term through to the long-term. Notably, the results show that the short-term to long-term FDI-induced inclusive growth gains of developing frameworks and structures for fighting corruption while addressing frailties in regulatory quality and government effectiveness are outstanding. To this end, we provide a few policy recommendations in the light of SDGs 1, 8, and 10 as well as Aspirations 1 and 3 of Africa's Agenda 2063.

We recommend that policy makers of SSA, multilateral and non-governmental institutions like the World Bank and Africa Development Bank provide leadership and assistance in building the region's governance mechanism to foster social equity. Prudent economic governance through the institution of robust social equity regimes that cushion vulnerable groups in society will go a long way to address inequalities in opportunities, income, and wealth. Additionally, we recommend that policymakers map out strategies that create shared wealth by enhancing technical and vocational education to enable the masses to create or take advantage of the technological spillover and economic opportunities associated with FDI. This will require a strong policy framework, particularly, one that can manage and lessen the impact of market failures, financial and socioeconomic crises. Furthermore, going forward, incentivizing and repackaging FDI to promote shared prosperity in SSA will require particular attention to strengthening corruption control mechanisms to ensure that gains accruing to

governments from FDI and FDI-related activities are shared equitably. Also, we recommend that mechanisms/frameworks for easing the burden of the private sector, for instance, in the areas of infrastructural development (e.g., transport, energy, digital, and sanitation) could prove crucial for incentivizing, sustaining and consolidating FDI inflows to contribute to inclusive growth.

The study leaves room for further research especially within the remit of engaging country-specific studies to provide more country-oriented policies that are more adapted to the initial development conditions of respective countries. This future research direction builds on the premise that while the panel evidence provided in this study is relevant for cross-country common policy harmonization, more targeted or country-oriented policies should be informed by the relevant time series empirical strategies.

Declaration: *This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.*

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Table A.1: Pairwise Correlation Matrix

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|------------------------------|-----------|----------|-----------|---------|----------|----------|----------|----------|---------|----------|----------|----------|------|
| (1) Inclusive growth | 1 | | | | | | | | | | | | |
| (2) FDI | 0.0418 | 1 | | | | | | | | | | | |
| (3) Vulnerable employment | -0.263*** | 0.0402 | 1 | | | | | | | | | | |
| (4) Inflation | -0.0729* | 0.0633 | -0.0360 | 1 | | | | | | | | | |
| (5) Human capital | 0.253*** | -0.0162 | -0.268*** | 0.00378 | 1 | | | | | | | | |
| (6) ICT access | 0.228*** | 0.0614 | -0.460*** | -0.0217 | 0.672*** | 1 | | | | | | | |
| (7) Financial development | 0.155*** | 0.0211 | -0.600*** | 0.0652 | 0.405*** | 0.623*** | 1 | | | | | | |
| (8) Corruption control | 0.0958** | 0.0428 | -0.531*** | -0.0405 | 0.367*** | 0.598*** | 0.529*** | 1 | | | | | |
| (9) Governance effectiveness | 0.154*** | 0.0685* | -0.257*** | -0.0126 | 0.165*** | 0.429*** | 0.407*** | 0.104** | 1 | | | | |
| (10) Political Stability | 0.182*** | 0.0675* | -0.433*** | -0.0174 | 0.374*** | 0.497*** | 0.336*** | 0.715*** | -0.0150 | 1 | | | |
| (11) Regulatory quality | 0.135*** | -0.0770* | -0.512*** | 0.0101 | 0.371*** | 0.518*** | 0.566*** | 0.757*** | -0.0339 | 0.646*** | 1 | | |
| (12) Rule of law | 0.131*** | -0.0126 | -0.560*** | 0.0226 | 0.441*** | 0.629*** | 0.543*** | 0.882*** | -0.0973 | 0.782*** | 0.853*** | 1 | |
| (13) Voice | 0.0443 | 0.0450 | -0.491*** | -0.0111 | 0.326*** | 0.531*** | 0.538*** | 0.760*** | 0.0283 | 0.729*** | 0.721*** | 0.814*** | 1 |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

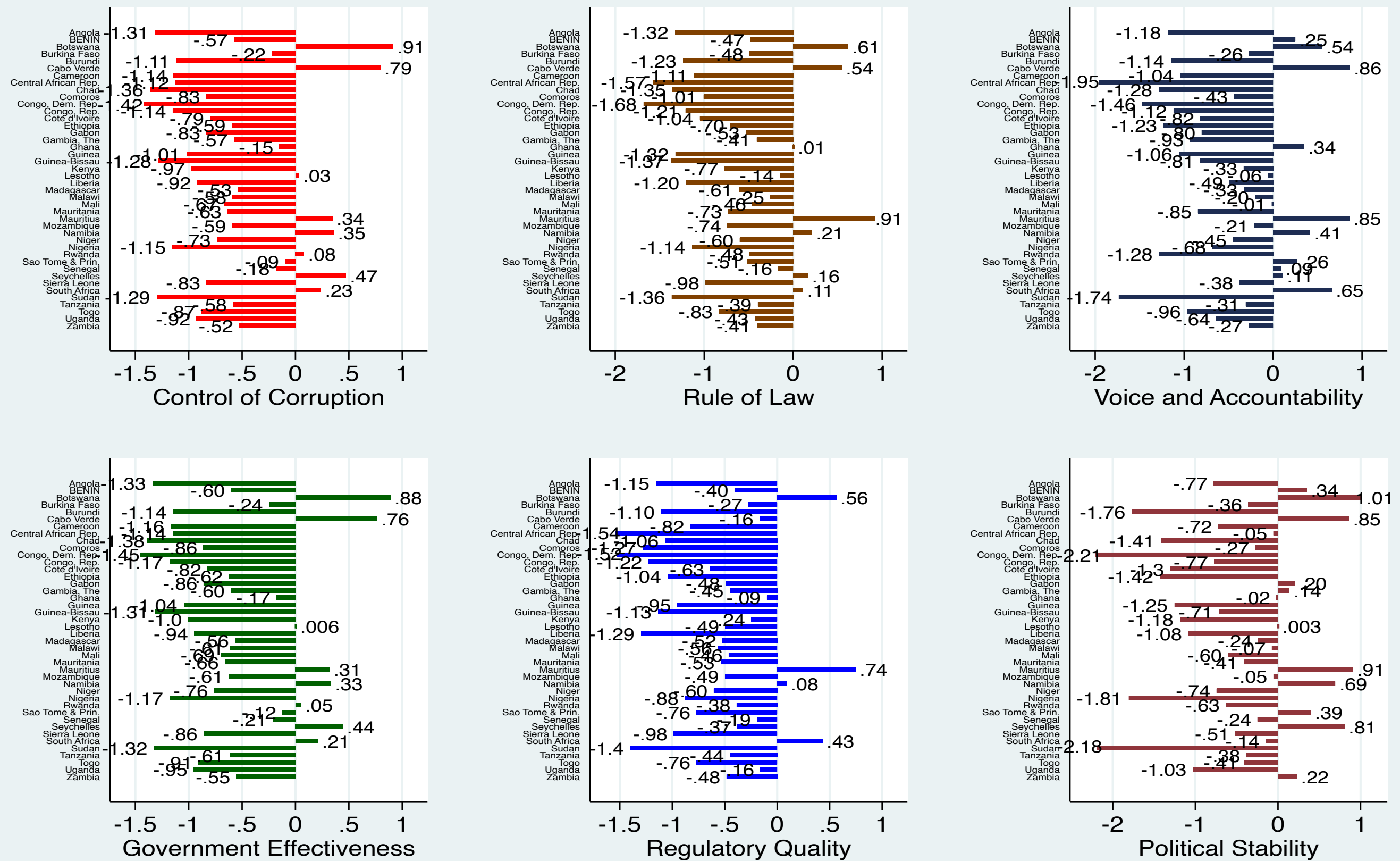


Figure A.1: Average In-Country Governance Performance in Sub-Saharan Africa, 1990 – 2020.