Institutional Quality and its Impact on Inward Foreign Direct Investment in Sub-Saharan Africa, 2006-2018:

A Dynamic Panel Data Analysis

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ABSTRACT

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The study examines institutional quality and its impact on inward FDI in 36 Sub-Saharan African (SSA) countries between 2006–2018. It investigates which institutioinal quality variables matter most in SSA as a whole and within the regional framework (Regional Economic Communities - RECs) of SSA. To achieve this goal, two dynamic panel data techniques were used: (Random-Effect GLS and the First-Differenced Two-Stage Least Squares (FD2SLS) estimator through Instrumental Variable (IV) Strategy). Empirical findings suggest that: institutional quality does have an impact on inward FDI in SSA. Statistically significant results point to government effectiveness, as the key dependable determinant of inward FDI in SSA as a whole. However, the impact seems even moreso, at varying degrees, for other institutional quality indicators within the regional framework. Findings indicate that, the rule of law and political stability are crucial determinants in the SADC whereas, political stability and control of corruption matter most for ECOWAS regional bloc. Government effectiveness, regulatory quality, political stability, and control of corruption, appeared as key determinants for ECCAS. The interaction estimations for EAC region didn't

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reveal any key institutional determinants for inward FDI. However, EAC is observed to be part of none SADC countries for which, on average political stability matters. Additionally, economic determinants such as Trade Openness, Human Development and Investment Freedom, displayed strong statistical evidence of effects on inward FDI in SSA as a whole and across the RECs. The above findings provoke policy formulation which address institutional determinants that impede FDI inflow into SSA and RECs. Although, SSA countries should work towards greater institutional quality in general, this research recommends that, RECs focus on reinforcing the levels of their most relevant institutional quality determinants. It equally proposes, reinforcing regional convergence and complementarity around norms and principles which can guarantee the adoption, and implementation of country-level strategies to improve governance among member States. Furthermore, policies towards greater trade openness and human development would be valuable in attracting more inward FDI into SSA.

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List of Acronyms and Abbreviations

AGGN   African Good Governance Network

AMU   Arab Maghreb Union

APRM   African Peer Review Mechanism

ASEAN   Association of Southeast Asian Nations

ARIA II   Assessing Regional Integration in Africa II

AU   African Union

CENSAD   Community of Sahel-Saharan States

CI   Confidence Interval

COMESA   Common Market for Eastern and Southern Africa

CPIA   Country Policy and Institutional Assessment

DRC   Democratic Republic of Congo

EAC   East African Economic Community

ECCAS   Economic Community of Central African States

ECOWAS   Economic Community of West African States

Etc.   Et cetera

EU   European Union

FD2SLS   First-Difference Two-Stage Least Squares

FDI   Foreign Direct Investment

GDP   Gross Domestic Product

GLS   Generalized Least Squares

IDA   International Development Association

IGAD	InterGovernmental Authority on Development
IIAG	Ibrahim Index of African Development
ILO	International Labor Organization
IMF	International Monetary Funds
ISS	Institute for Security Study
IV	Instrumental Variable
LHS	Left Hand Side
NAFTA	North Atlantic Free Trade Agreement.
OECD	Organization for Economic Co-operation and Development
OVB	Omitted Variable Bias
RECs	Regional Economic Communities
RHS	Right Hand Side
SADC	Southern African Development Cooperation
SSA	Sub-Saharan Africa
UNCTAD	United Nations Conference on Trade and Development
UN-OSSA	United Nations Office of Special Adviser on Africa
UNECA	United Nations Economic Commision for Africa
WB	World Bank
WDI	World Development Indicators
WGI	Worldwide Governance Indicators
WP	Working Paper

CHAPTER I: GENERAL INTRODUCTION

1-1 Background to the study

This part presents an appraisal first, of Foreign Direct Investment (FDI) and its situation in countries of Sub-Saharan Africa (SSA), followed by a profound look at institutional quality and its situation in SSA.

1.1 FDI and situation in SSA

This section respectively highlights: the definition of FDI, typology and its progress in SSA and its regional framework.

FDI is defined as, an investment by an entity resident in one economy in an enterprise resident in another economy, with the objective of obtaining a lasting interest (OECD). OCED further recommends a threshold of 10% of the voting powers of the said entity, that an investor must hold, either directly or indirectly. These entities take the form of affiliate enterprises or foreign affiliates.The key to FDI is therefore, the element of <u>Control</u> and a <u>lasting interest</u> by the investor, whereby, the investor diplays manifest intent to vigorously accomplish and influence foreign investment operations, distinguishing it from a passive (short-term) foreign portfolio investment.

As concerns the typology of FDIs, it has been commonly observed that foreign investors can proceed in overseas direct investment by carrying out: mergers and acquisitions of foreign-based stocks, doing joint-ventures with oversea firms, or launching a subsidiary

of a domestic firm overseas. Despite the above varied avenues open to direct oversea investments, the Corporate Finance Institute classifies FDI into two main categories: Vertical and Horizontal, while noting the emergence of Conglomerate and platform FDI in recent times. Vertical FDI refers to a situation whereby, the business develops in foreign country by moving to a different level of the supply chain, however linked to the main business. Whereas, horizontal FDI, presents scenarios of business expansions in a foreign country, while undertaking the same activities. Conglomerates on their part, refer to a business undertaken in unrelated business activities in a foreign country, however difficult to undertake, since it involves penetrating an entirely new market and country. The platform FDI, refers to a situation whereby a business expands into another country, but its output is marketed in other countries.

Looking at the situation in SSA, the United Nations Conference on Trade and Development -UNCTAD, (2019,World Investment Report), indicates that, inward FDI flows to Africa witnessed an 11 percent increase from $46 billion registered in previous year. It resisted a general downhill inclination in 2018, registering an upward movement of 11 percent following sequential drops of 2016 and 2017. The chart below illustrates FDI net Inflows (% of GDP) into SSA over the periods 2006-2018.

Chart 1: FDI, net inflows (% of GDP) in SSA 2006-2018
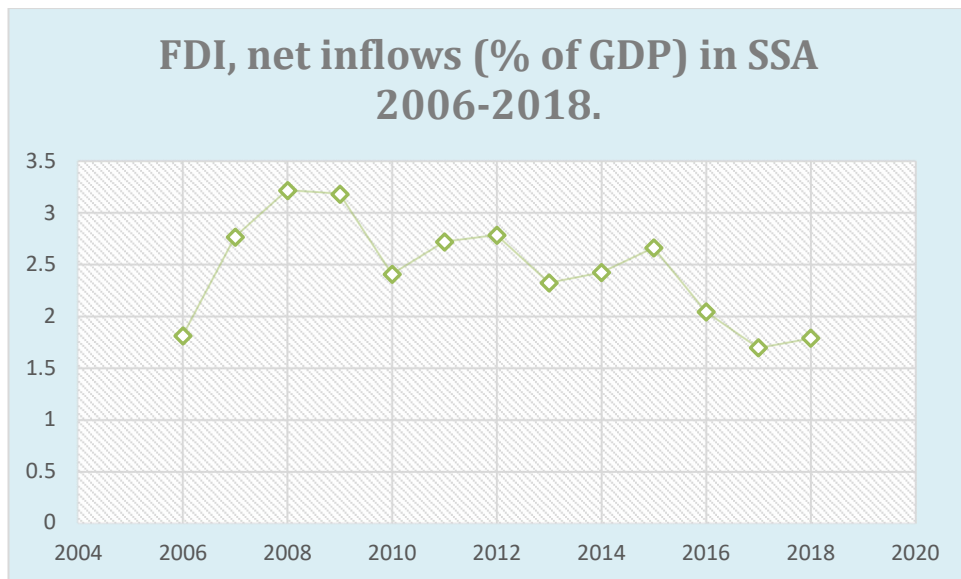
N.B Chart is generated by author/student using Data from World Development Indicators (WDI) database lastly updated in 09/08/2020.

Economies such as Nigeria, Egypt and Ethiopia, witnessed a downward balance of their FDI flows, by large increase in others such as Ghana, but most significantly in South Africa. This has been highly attributable to rise in resource-targetting FDI and South Africa's increased inflows, even though, for same period, a number of countries witnessed a substantial decline, this has been partly attributable to political uncertainty and disapproving economic factors, (World Investment Report, 2019). In West Africa, the inflows dropped by 15 percent. This has been the lowest registered in the region since 2006. The leading economy, Nigeria witnessed a 43 percent decline to $2 billion, seeing its position as the leading recipient in West Africa shift to Ghana. Most of Ghana's FDI is orientated towards gas and minerals. Inflows into Central Africa has been basically

stable in 2018. With inflows of $4.3 billion, Congo stands as the leading FDI recipient in the region. Oil exploration is said to account for the bulk of the country's FDI related investment. Due to accrued investments in the extractive industry, Democratic Republic of Congo (DRC) saw her FDI inflows rise by 11 percent 2018. Ethiopia's accrued investments in renewable energy, manufacturing, mineral extraction and petroleum refining, have permitted her to securet the top-end position amongst East African recipient countries. This report also indicated that prospects remained favorable due to economic liberalization and investment facilitation measures. Kenya's FDI inflow rose by 27% to 1.6 billion drawn especially into industry, manufacturing, oil and gas sectors. Uganda, Tanzania respectively recorded increases of 67 and 18 percent largely from investments in oil, gas and manufacturing industry. As earlier mentioned, as a result of intra company loans, equity inflows, industry and manufacturing investment, and renewable energy, Southern Africa FDI flows recovered in 2017, but it more than doubled for South Africa alone. Angola on its part has sustained a two-year negative FDI inflow (-$5.7 billion) despite its attractiveness in the oil and gas sectors. This has been attributed to decline in the country's oil production and profit repatriations by foreign parent companies. Mozambique on its part witnessed an increase in FDI inflow, up from $2.3 billion in 2017 to $2.7 billion in 2018. Like the case of South Africa, it was attributable to intra company loans, equity inflows, industry and manufacturing investment, and renewable energy. According to the same report, France appears as the largest foreign investor in Africa, and this could be accounted for by historical link with certain countries on the continent. France equally has invested heavily in Nigeria and

Angola reputed for hydrocarbon-production. France is followed by the Netherlands, whereas, Egypt, Nigeria and South Africa hosting more than two thirds. China's FDI inflows to Africa increased by more than 50% from 2013 to 2017.

Within regional framework, UNTCAD, Trade and Development Commission [1], indicated that, integration has become an essential aspect of economic environment and shows some association with FDI. Furthermore, in citing the example of regional groups such as the European Union, (EU) and North American Free Trade Agreement (NAFTA) where integration has constituted a strong boost for cross-border investment connections, they accentuate the idea that, regional cooperation can lead to reorganization within cohesive groups. This is because, integration is seen to encourage investment liberalization or protection, common market, and policy harmonization which is implied for regional integration. However, empirically, FDI has been shown to vary considerably within regional groups. The share of intraregional FDI in total inward FDI, is much lower among developing regional groups than developed regional groups. Regarding Africa and its RECs, it is noted amongst other reasons, that their capacity to bait FDI have been limited by overlapping memberships of countries into different RECs. This alone hinders the harmonization of policy and institutional frameworks and thus efforts towards deeper integration.

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[1] Regional Integration and Foreign Direct Investment in Developing and Transition Economies (UNCTAD,TD/B/C.II/MEM.4/2, 2012).

Summarily, we can observe that, the motives behind inward FDI into SSA appear to be many and varied. It seems to presage the important role of locational economic factors and to some extent, highlights motives related to institutional quality factors (political uncertainty), in the influence FDI activities.

1.2 Institutional Quality and its situation in SSA

This section highlights: the definition of Institutional Quality, its determinants and the situation of institutional quality in SSA and regional framework.

Much of todays' existing works regarding institutional quality owe to the pioneering works of Douglass North (1981, 1990), who defines Institutions as: humanly devised constraints that shape interaction between people. According to him, executive power limitations improve institutional quality. These restrictions can be formal or informal rules, whose force is highly dependent on how they are implemented. This greatly impacts on the executives ability to override the law. It equally guarantees the protection by law of, individuals, entrepreneurs, economic stake holders, and investments.

Elsewhere, other scholars have applied much broader perspectives to the concept of Institutional quality. They go beyond the de jure executive power, to lay emphasis on de jure and de facto power (Acemoglu, Johnson and Robinson (2001, 2002, 2005). This formulation presages that, a proper balance of power and a de facto measure can guarantee the protection of entrepreneurs and their investments. Furthermore, scholars such as Friedrich von Hayek (1948), and Easterly (2013), make a case for the rights and

the opportunities of the individual, by emphasizing the important role of respect for human rights as a prerequisite to achieving lasting economic progress. These include; the right to take a profession, to operate a plant or investments, or to develop and market new goods and services. The absence of these forms of rights would imply that, investments will not be made and if made will suffer much. In addition, Algan, Y., & Cahuc, P. (2010), introduced 'trust societies' (formalized trust) wherein institutional setting is determined by the level of trust amongst individuals their legal rights, in economic transactions. Effective public service, is considered an essential component of good institutions and human rights are of no essence if confronted with a reckless public services (cumbersome and ineffective bureaucracy, corruption, etc.) Easterly (2013). Institutional quality therefore appears as a broad concept which encompasses: law, individual rights and high quality governance regulation and services, Allard, Bruinshoofd. (2016)

Based on Regional Country Policy and Institutional Assessment (CPIA), SSA registered a 3.1 score, below the 3.2 average registered by International Development Association (IDA) countries. The CPIA report reflects essentials scores Scaled between (low) and 6(high) on: structural policies, policies for social inclusion and equity, economic management and most importantly on public sector management and institutions. The 2019 CPIA report, indicated institutional quality and country-level policy, are reported to vary widely across the region. Rwandas score of 4.0, places the country above the regional level. Countries like Senegal (3.8), Cape Verd, Kenya and Tanzania (3.7) are reported to have the best scores, a few over half (20) of the regions countries which are

IDA borrowers indicated relatively lower performances (3.2 or lower). High incidence for conflict, and exposure to systematic challenges such as climate threat and price volatility, appear as the key issues of the most fragile countries. The period from January to December 2018 indicates that, the score in IDA-eligible countries remained unaffected at 3.1. Below is a representation of the CPIA trends from 2010 to 2018. It is clearly observable that, the lowest scoreis registered by public sector management and institutions (below 3.1). These scores obliquely reflect the quality level of institutional framework and policy settings in the region (CPIA Africa Report 2019).

Chart 2: CPIA score trends from 2010 to 2018 (WB, CPIA Africa Report 2018)
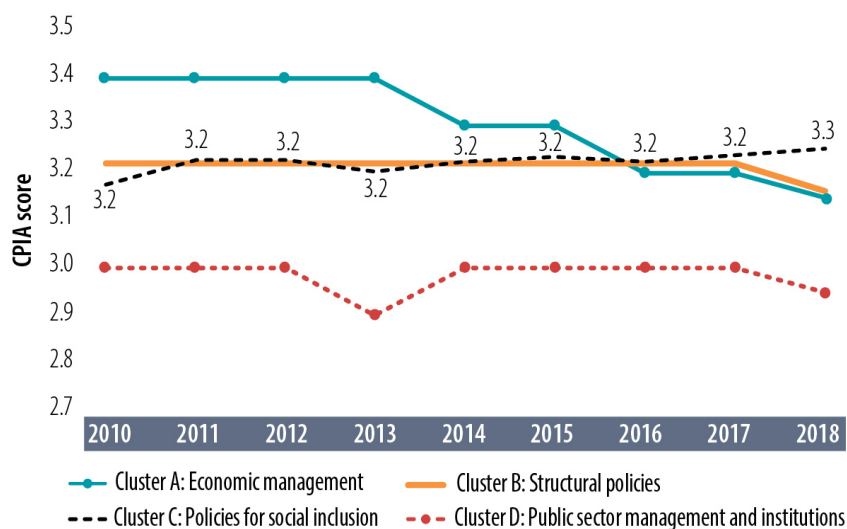
As concerns the regional framework, based on a 2006 report by United Nations Economic Commision for Africa(UNECA)[2], the fundamental role of institutions in

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[2] UNECA Report: Assessing Regional Integration in Africa (ARIA) II: Rationalizing Regional Economic Communities.

providing the right framework for regional intergration has been widely acknowledged. Furthermore, the report indicates that, integration is reachable through a strong vision and well-defined institutional building blocs. Regional institutions arising from integration are thus seen to provide the incentive required to stimulate growth and integration initiatives can foster development of institutional infrastructure. Regional Economic Communities provide the institutional framework and backing where national institutions are weak or absent (ARIA II: Rationalizing RECs). According to. Shingirirai, M., & Albert, M. (2017), due to the fact that, unharmonized policies have affected trade and caused unnecessary delays on crossing borders, regional economic communities are portrayed as an enabling platform for policy harmonization. The development of appropriate institutions therefore, seems enhanced in common market settings, and this constitutes a greater incentive to attract more FDI into the regions in particular and SSA in general.

1-2 Research Problem

Though, the research investigates the impact of institutional quality on FDI inflows in SSA and within SSA regional framework, the situational analysis carried out earlier on, seemingly reveals two central issues: low quality and role of institutional frameworks in the region (WB, CPIA Africa Report, 2019) and; the successive decline in net Inflows (% of GDP) into SSA over the 2016 and 2017 period (WB Development Indicators 2018). Even though, preceding sections have sufficiently emphasized the quality of institutions in SSA, a research investigating trade outcomes in Africa's RECs and Institutional

Quality concluded that, institutional quality within regional framework were rather low and differed much across the RECs, (Osabuohien, Evans S. C. and Efobi, Uchenna, 2011). It is further indicated that, over the last two decades, SSA institutional quality lagged behind the world average, and presented deteriorating overall scores in 2013, from -0.63 in 2002 to -0.67, (Alexandra Dumitru and Raphie Hayat, 2015). Additionally, far from being a single entity, SSA presented the greatest range between highest scoring and lowest scoring countries in terms of quality of regulatory environment with Mauritius and Somalia ranking 25th and 190th (World Bank Doing Business Report 2018). This report further emphasizes that, even though major steps have been made to set up good regulatory practices, at the same time, the region lags behind due to significant regulatory challenges which can deter the region's economic progress, notably its volume of inward FDI.

Our point of interest is equally conveyed by the issue of contemporary academic discourse and scholarly debates probing on the role of institutions and their quality, in attracting FDI (Allard Bruinshoofd, 2016). As earlier mentioned, the works of Douglass North (1981, 1990), pioneered research on association of institutional quality with economic outcome. Ever since, there has been the construction of Institutional Quality as an independent variable establishing a causal link with economic growth and progress, both by IMF (2003) and World Bank (WB). Many scholars such as: Dunning (2000); Ali, Fiess, & MacDonald, (2010); John Mayanja Bbale & John Bosco Nnyanzi (2016); Ibrahim Nandom Yakubu. (2020) etc. have investigated institutional quality as a variable of interest in determining cross-border capital flows. Despite, such existing wide range

of theoretical and empirical works on key determinants of FDI inflow, studies have not produced clear-cut answers. Our study builds on previous research, notably that of John Mayanja Bbale & John Bosco Nnyanzi (2016), which used averaged/composite governance indicators to capture institutional quality and investigated its role in explaining FDI inflows in SSA and her regional groupings. Though, estimation results evidenced positively significant effect of institutional quality in reinforcing FDI inflows, the findings presented mixed results which seemed to vary with the sub-regional economic groupings in SSA. As will be futher elucidated in the literature review chapter, our attempt to investigate further, institutional quality and its impact of on FDI inflows into SSA as a whole and across RECs is not unfounded.

1-3 Research Questions/interrogations

The basis for carrying out the analysis in SSA and its regional groups is that, regional economic communities provide institutional framework and support, where national institutions are weak or inexistent. RECs equally provide the incentive to stimulate growth and development, (ARIA II: Rationalizing RECs). We argue that, institutional quality does have an impact on inward FDI for SSA as a whole and within the regional framework. Therefore, our research probes on the following relevant interrogations:

- What is the impact of institutional quality on inward FDI in SSA and within the regional framework between 2006-2018?;
- Which are the most connecting institutional quality determinant(s) on inward FDI in SSA as a whole and within the RECs, over the same period?;

- What are the policy implications of these findings for the SSA countries and RECs?

1-4 Research significance

Nowadays, African Policy makers increasingly consider FDI a high priority (UNCTAD 2012). This comes especially at a moment when most less developed economies are looking to incite more foreign investors, in contexts faced by limited national resources and rising economic development needs. Our research presents a double significance:

- From a purely academic perspective: it will complement existing literature on connecting determinants of FDI and;
- From a policy perspective: it will inform policy reform on which areas of institutional quality need to be improved upon in order to enhance a friendlier institutional climate and attract more capital inflow into SSA countries and at regional levels.

1-5 Research outline

The entire work will be outlined in five chapters: Chapter I: general introduction offering a research overview (background, research problem and questions, the aim and significance research); Chapter II: a literature review on FDI and bridging the gap with previous study: chapter III: the research methodology and data; Chapter IV: the research results, interpretation and discussions; and Chapter V: the research conclusion and its policy implication.

CHAPTER 2: LITERATURE REVIEW

The theoretical framework for this study reviews FDI from two essential standpoints: first, as a contributor to economic growth and second; its connecting determinants, notably the role/impact which institutional quality can exert in attracting FDI inflows into a country or group of countries.

2-1   FDI as a Contributor of Economic Growth

As a contributor of economic growth, existing literatures have abundantly stressed the potential role FDI has, to spur economic growth. Based on neo-classical or exogenous growth model, economic growth is directly fostered by capital accrual and the capital stock in the host economy is augmented by FDI inflow. It supplements domestic capital formation, by means of technological spill-overs according to exogenous growth theory (Herzer et al. 2008). Based on endogenous growth theories, it leads to the development of local skills via knowledge transfers (Elboiashi, 2011). The new exogenous growth models supports the idea that, economic growth in the host economies can be continually enhanced by FDI spill-over effects. Concurrently, empirical works have shown that host couuntry's growth is enhanced as a result of FDI, through technological spillovers and knowledge transfers(skill acquisition), Mahembe, E., & Odhiambo, N. M. (2014). FDI inflow therefore, supplements domestic fixed capital formation and broadens the scope for investments in the host economy. By so doing, the host economies integrate the global economy and are assisted in setting up an environment inclined to competitiveness and enhancing to development of enterprises (OECD, 2002:5).

2-2   Connecting determinants of FDI

The important role of FDI has necessitated its study by researchers in broadly varied ways. One such ways, focuses on identifying its foremost independent connecting determinants. This has impelled research works such as Kahai, S. K. (2004), whose conclusions suggested a need to incite attention infavor of cultural and institutional FDI factors in less developed economies. The study furthers on, an apparent catergorization of determinants of FDI inflow, into three main categories: economic related factors; political, social, and culturally related factors and; transaction costs related factors, in the host countries. It is within this outlook that a host of researcher have dwelled on the study of FDI connecting factors. In a bit to cite a few and in a non exhaustive manner, we observe that, (Carr, David, L., James R. Markusen, and Keith E. Maskus. 2001), in an attempt to accurately explain FDI patterns through theoretical models of Multi-National Enterprises (MNEs), found labor endowment to be a key measure of FDI for the host country. They affirm that foreign investment decisions are guided by firms' search of low-cost locations for labor-intensive production. By contrast however, Head and Ries (2008) modeled FDI to be driven by firms' decisions to obtain and control foreign assets. Chakrabarti (2001) argued that host countries with larger market size, are more succeptible to attract more FDI inflow. The research adds that, larger markets provoke efficient resource utilization and economies of scale. Elsewhere, Xaypanya et al. (2015) observed that, the inflation rate had a negative impact.

2-3 Critical observations of the literature review

Following the broad yet none exhaustive cases mentioned above, it is obvious that multiple studies have worked to identify determinants of FDI inflow into a host economy or groups of economies in SSA and else where. Though, the studies noticeably possess an essential importance and contribute to the wider question of which determinants or variables are most significant, the theoretical framework provokes the following key remarks:

- Most research on FDI in developing countries have focused on traditional economic determinants (Tsai, P.L. 1994) paying little attention to the role of institutional quality;

- While Some researchers construct a composite index from Worldwide Governance Indicators (WGI) to capture institutional quality, others make use of either of the WGI to capture institutional quality to analyse impact on inward FDI;

- Previous studies suffer from different degrees of endogeneity bias resulting from either: omitted variables, simultaneity, selection bias and the effects of small sample size resulting from sub-group analysis and;

- An evident absence of consensus as there is no clear-cut conclusion especially regarding developing countries (Komlan Fiodendji, 2013).

Regarding the focus by researchers on more traditional economic determinants (Tsai, 1994), it appears that, little attention has been dedicated to factors related to institutional

factors of the host countries. However, these other sets of determinants, have been the area of interest for other groups of researchers, who have accordingly, shifted the debate centered around conventional determinants (traditional determinants), to probe on the role of non-conventional (institutional) determinants on FDI inflows. Enhanced by North, D. (1990), whose pioneering works, established an association between institutional quality and economic outcome, Dunning, J.H. (2000) furthered that, good governance and economic freedom were progressively important connecting factors to FDI. An idea equally emphasized by, Addison & Heshmati, 2003; Becchetti & Hasan, 2004; Loree & Guisinger, (1995), who all indicate that non traditional F.D.I. factors, such as (economic freedom, governance), are becoming more common. In the same vein, aspects such as government stability, conflicts, rights, and rule of law, have become important causes of FDI inflows, (Busse, M. and Groizard, J.L, 2008). The important role of political stability as a major determinant of inward FDI is equally emphasized upon, and investments are seen to either react positively or negatively to changing political situations in an economy, (Chan and Gemajel, 2004). It is valuable to mention that, some studies have contested governance as a key factor of FDI (Berden, K., Bergstrand, J.H. and van Etten, E., 2014). Yet, contrastingly dominant view is in favor of strong institutions attracting FDI, whereas weak institutions deterring FDI, (Ali, F.A., Fiess, N. & MacDonald, R, 2020).

As concerns the use of constructed composite index from Worldwide governance indicators to capture institutional quality, followers of this approach argue that, it is not

sensible to estimate governance indicators independently in the same estimation model, since they are considered to be extremely associated (Globerman and Shapiro 2002). Constrastingly, those in favor of the use of each Worldwide Governance indicator to capture institutional quality among other reasons argue that, aggregate or composite data can be totally ambiguous when used as the basis for policy estimation, Hsiao, C., Y. Shen, and H. Fujiki (2005). Though, composite variable has proven useful in generating more expressive data, in situations where sample size is too small, in the event of multicollinearity and dealing with strongly associated variables, interestingly, they are observed to provoke information loss, variations in statistical strength, and pose enormous challenges when it comes to result interpretation of such a variable and its implication in terms of policy, Song MK, Lin FC, Ward SE, Fine JP. (2013).

As concerns the different levels of bias, endogeneity bias, which results from simultaneous causality amongst one (or more) independent variable, appears as the most common. It is explained by causal effects mutually running between independent and dependent variables (Wooldridge, 2002). Though, there is a wide range of sources of endogeneity, they could broadly result from either: omitted variables, which explain the dependent variable, yet are not included in the model; simultaneity, where the variable explains another and vice versa; or selection bias, which results from biased sampling.

And finally, we observe like was done by Komlan Fiodendji (2013) that, overall determinants of FDI in SSA present little consensus about which ones are critical for inward FDI. Though, previous researchers have done well in analyzing institutional

quality effect on FDI, for host economies, the abundant yet varied findings in the case of SSA still leave us speculating on which variables capture most compulsory settings to accurately explain FDI patterns in the region. Additionally, it leaves the policy makers undecided or confused on which results are most policy relevant and which should underpin policy formulation and reform.

2-4   Contribution to previous study

Our study builds from that Bbale, J.M., & Nnyanzi, J.B. (2016). This study used the average of six Worldwide Governance Indicators to capture institutional and analyzed impact on inward FDI in SSA. As earlier mentioned, the results evidenced positively significant effect of institutional quality on FDI inflows, although, the mixed results seemed to vary with RECs in SSA. We attempt to extend the study by:

- o Using separate (non-composite) governance indictors to capture Institutional quality, and;
- o Introducing binary-dummy independent variables to codify membership of SSA countries in RECs and facilitate investigating institutional quality impact on inward FDI within regional framework.

The above mentioned additions to previous work have yet been conducted to the best of our knowledge and shall be the object of the preceeding chapters and paragraphs.

CHAPTER 3: RESEARCH METHODOLOGY and DATA

We shall present: the empirical model specification; sources of data, variable choices and premise; methodological and data limitations.

3-1 Empirical Model

The empirical model preferred for this analysis is based on Dunning's (1977, 1988) theoretical framework. Dunning set Micro and Macro level determining factors, to examine the reaons behind locational decisions of companies investing abroad. On this basis, and taking account existing empirical literature, we introduce the following equation which is composed of a dependent (LHS) and Independent variable (RHS), known to affect FDI flows;

$$FDI_{it}=\beta+\hat{\beta}INSQ_{i,t}+\acute{\Theta}Xi_{i,t}+(\,\nu_i+\mu_{it})$$

Where, FDI_{it} stands for Foreign Direct Investment;

$INSQ_{i,t}$ stands for Institutional Quality Index, captured by: Rule of Law- $RUL_{i,t}$; Regulatory Quality Index- $REGQI_{i,t}$; Political stability index $PSI_{i,t}$; Government Effectiveness Index $GEI_{i,t}$; Voice and Accountability Index $VOA_{i,t}$ and; Control of Corruption $COC_{i,t}$.

$Xi_{i,t}$ stands for the control variables to be estimated. They are captured by: $LAB_{i,t}$ for Labor Force, (million people); $HDI_{i,t}$ for Human Development Index; $DOR_{i,t}$ for Oil

Reserves; $IFI_{i,t}$ Investment Freedom Index; $GDPP_{i,t}$ for Gross Domestic Product per capita and $TOR_{i,t}$ for Trade Openness Index.

$(v_i + \mu_{it})$ represents the composite error term whereby, the random component of variation in FDI comes from the μ_{it} error or residual term, by time and by period. And v_i is very likely going to be a time invariant error term. Additionally, we note that, i = 1…36 States, t = 1...13 years.

In order to minimize autocorrelation and ensure the effective handling of the agglomeration effect, whereby, the best predictor for an outcome today (FDI_{it}), resides in its outcome yesterday ($FDI_{i,t-1}$), we introduce an FDI lagged variable in the estimation model. When we incorporate the lagged FDI among the regressors, we obtain:

$$FDI_{it} = FDI_{i,t-1} + \acute{\beta}INSQ_{i,t} + \acute{\Theta}Xi_{i,t} + (v_i + \mu_{it})$$

As earlier mentioned, binary dummy variables are introduced as interaction variables. Since we equally aim to, examine which institutional variables matter for inward FDI within the regional framework, the RECs will serve as the interaction variable and as such, constitute the binary-dummy independent variables which codify membership of SSA countries into RECs. The model equation therefore becomes:

$$FDI_{it} = \alpha FDI_{i,t-1} + \acute{\beta}INSQ_{it} + \sigma RECs_{i,t} + \acute{\Theta}(INSQ_{i,t} * RECs_{i,t}) + \acute{\Theta}Xi_{i,t} + (v_i + \mu_{it})$$

Therefore, $\acute{\Theta}(INSQ_{i,t} * RECs_{i,t})$, represents the interactive term. We note that, this model specification allows the marginal effect of each institutional quality variable on

inward FDI to vary with different RECs and the coefficient of the interaction term indicates the magnitude of variation. In order to determine the marginal effect of institutional indicators when RECs are introduced in the model specification, we do differentiation of the model equation with respect to Institutional quality (INSQ), followed by RECs and we obtain:

$$\frac{\partial FDI_{it}}{\partial INSQ_{i,t}} = \hat{\beta} + \acute{\theta}RECs_{i,t}$$

$$\frac{\partial FDI_{it}}{\partial RECs_{i,t}} = \sigma + \acute{\theta}INSQ_{i,t}$$

In order for better prediction, improving the fit of the model and minimizing errors, the distribution of the variables is transformed to a more normally-shaped bell curve using the logarithm of one or more variables. This controls skewness (non-linear effects), counters problems in heteroskedasticity (unequal scatter) and improves on normal distribution of the dataset. It minimizes errors when making predictions while taking into account that, we are not overfitting the model. It will permit a more accurate interpretation of the changes (not in Log-units) but rather in percentage changes. In order to log-transform variables with negative values, the following formular (Matthias Busse, Carsten Hefeker, 2007) was used:

$$\mathbf{Ln\ (}Xi_{i,t} + \sqrt{(Xi^2_{i,t} + 1))}$$

Since the scores of institutional quality indicators range between -2.5 and 2.5, they have the nature of normal distributions. In our analysis therefore, we log-transformed: FDI,

GDP per Capita, Trade openness, Investement Freedom, Labor, Human Development, and Oil Reserves. The coefficient of the log-transformed independent variable then took the form of elasticities (Kenneth Benoit, 2011).

Hence:

$$lnFDI_{it} = \alpha lnFDI_{i,t-1} + \acute{\beta} INSQ_{it} + \sigma RECs_{i,t} + \acute{\Theta}(INSQ_{i,t} * RECs_{i,t}) + \acute{\Theta} lnXi_{i,t} +$$

$$(\nu_i + \mu_{it})$$

In the context of investigating the effects of institutional quality on inward FDI in SSA as a whole and within the regional framework, the usual efficiency argument for pooled estimator seems to lose strength due to marked country differences. Hence, when opposing estimations involving fixed effects to those with random effects, we are looking at whether or not, the time invariant term ν_i is associated with RHS variables. To take advantage of the time series dimension, use is made of the dynamic panel data. (Mátyás, L., & Sevestre, P., 2008).

In a dynamic panel data model, the lagged dependent variable known to be associated with the residual term, provokes unreliable least squares estimates, Baltagi, B., Bresson, G., Griffin, J. et al. (2003). This raises an **<u>endogeneity bias</u>** whereby ν_i maybe correlated with the newly constructed lag variable $FDI_{i,t-1}$ and though we may account for the time invariant term (ν_i) appropriately, we still obtain bias in these coefficient estimates because of an existing connection between the differenced residual term and the lagged variable.

How do we break this correlation?

In order to deal with the correlation and error term, we proceed by the First-Difference Two-Stage Least Squares (FD2SLS) estimator suggested by Anderson, T.W; Hsiao, Cheng (1982). This required identifying an appropriate Instrumental Variable (IV) Strategy, consisting in:

- Firstly, carrying out a differenced operation, and;

- Secondly, conducting an Instrumental Variable (IV) estimator model.

The objective was to eliminate the <u>overlapping time periods</u> which caused the endogeneity bias and to come up with an error term $(\mu_{it} - \mu_{i,t-1})$ not correlated with the instrumental variable $(FDI_{i,t-2})$.   Hence;

$$\Delta FDI_{i,t-2} = [FDI_{i,t-2} - FDI_{i,t-3}]$$

Where, $FDI_{i,t-2}$ is <u>the instrument</u> for $\Delta FDI_{i,t-1} = [FDI_{i,t-1} - FDI_{i,t-2}]$,

and $(\mu_{it} - \mu_{i,t-1})$ is the differenced error term not correlated with $FDI_{i,t-2}$.

Hence, we eliminate the sequential link existing between the error term and the lagged variable. This, improves on the consistency and efficiency of the dynamic panel data regression with a First-Difference Two-Stage Least Squares (FD2SLS) estimator.

3-2   List of Countries, Sources of Data, Variables and premise.

- **List of SSA countries under study.**

Use is made of a panel of 36 countries from SSA. Some countries (South Sudan, Somalia, Comoros, Sudan Eritrea, Eswatini, Ethiopia, Equatorial Guinea, Sao Tome and Principe, and Cape Verd), were ousted from the list. They lacked important volumes of data on certain variables, essential to effectively carryout the analysis.

Table 1: SSA countries considered in the research

N°	Country	N°	Country	N°	Country	N°	Country
1	Angola	16	Eswatini*	31	Mozambique	46	Uganda
2	Benin	17	Ethiopia*	32	Namibia	47	Zambia
3	Botswana	18	Gabon	33	Niger	48	Zimbabwe
4	Burkina Faso	19	Gambia	34	Nigeria		
5	Burundi	20	Ghana	35	Rwanda		
6	Cape Verd *	21	Guinea	36	Sao Tome and Principe*		
7	Cameroon	22	Guinea Bissau	37	Senegal		
8	Central African Republic	23	Kenya	38	Seychelles*		
9	Chad	24	Lesotho*	39	Sierra Leone		
10	Comoros*	25	Liberia	40	Somalia*		
11	Congo, Dem. Rep.	26	Madagascar	41	South Africa		
12	Congo, Rep.	27	Malawi	42	South Sudan*		
13	Cote D'Ivoire	28	Mali	43	Sudan*		
14	Equatorial Guinea*	29	Mauritania	44	Tanzania		
15	Eritrea *	30	Mauritius	45	Togo		

Source: World Bank consideration.
(Country Name*) refers to ousted countries from the sample

Beyond, analyzing Institutional quality and its impact on inward FDI in SSA as a whole, the study equally aims to investigate which institutional determinants matter most within

the regional framework. This framework, put in place by the 1991 Treaty of Abuja, established eight sub-regional bodies (RECs) to foster regional and continental integration. These bodies include: the Arab Maghreb Union (AMU), the Economic Community of West African States (ECOWAS), the East African Community (EAC), the Southern African Development Community (SADC), the Economic Community of Central African States (ECCAS), the Common Market for Eastern and Southern Africa (COMESA), the Community of Sahel-Saharan States (CENSAD) and, the Intergovernmental Authority on Development (IGAD). For our research purpose, our investigations mainly include the RECs in SSA. The AMU and CENSAD were not considered and in line with previous research, our study equally focuses on the ECOWAS, ECCAS, EAC and SADC regional economic communities. (See next page: list of countries organized in the RECs).

See Table 2: List of countries for the RECs

RECs	ECOWAS	ECCAS	EAC	SADC
Member States in RECs	Benin Burkina Faso Cape Verd* Ivory Coast Gambia Ghana Guinea Guinea Bissau Liberia Mali Niger Nigeria Senegal Sierra leone Togo	Angola Burundi Cameroon Central African Republic Chad Congo DR. Equatorial Guinea* Gabon Congo Republic Rwanda Sao Tome and Principe*	Burundi Kenya Rwanda Sudan* Tanzania Uganda	Angola Botswana Comoros* Congo DR Eswatini* Lesotho* Madagascar Malawi Mauritius Mozambique Namibia Rwanda Seychelles* South Africa Tanzania Zambia Zimbabwe
'Country*' refers to countries belonging to the REC but not considered in our analysis				

- **Sources of Data.**

Data used are from highly reliable secondary sources notably: from World Banks compilation of Worldwide Governance Indicators and World Development Indicators (WDI). The choice of variables and their indicators was guided by a proven track record in literature review, data availability and as well as those which best define the SSA countries institutional framework and context. As a result, and though not ideally, certain variables were ousted from the estimation model, as will be further elucidated in subsequent paragraphs.

- **Institutional Variables Choices (proxies and Premise)**

In order to capture Institutional Quality, our research retained six WGI indicators: Government Effectiveness, Control of Corruption, Rule of Law, Voice and Accountability, Regulatory Quality, and Political Stablity. The independent variables are extended to include explanatory economic related variables serving as control variables: GDP per capita, Human Development, Labor Force, Trade Openness, Investment Freedom and Oil Reserves. The final model incorporates binary-dummies variables which codify membership of SSA countries under study, in RECs.

The WB measure of rule of Law, indicates how elements such as: likelihoods of crime and violence, contract enforcement quality, confidence in societal rules, amongst others, can influence FDI. A survey of corporate FDI decision making and the rule of law, (Calamita, N. Jansen and Jowell, Jeffrey, 2015), revealed rule of law as a key

determinant of multinationals' FDI decisions. The research equally notes that, "ease of doing business' is most essential, supported by a politically stable environment. Another analysis revealed positive association adherence to the rule of law on portfolio investments, and concluded on rule of law as a key determinant of portfolio investment in developing countries. Staats, J. L., & Biglaiser, G. (2011). We therefore, have it as a premise that, adherence to rule of law can incite inward looking FDI in SSA.

The WB measure of political stability measures likelihoods of politically driven violence and intimidation. SSA has certainly witnessed major strides in its political stability as opposed to previous years, yet, is politically unstable relatively (Alexandra Dumitru and Raphie Hayat, 2015). Though, major strides are made in the direction of political stability, the region is still subject to multiple structural pressures. These, increase risks of political uncertainty and likelihood of conflicts in the region (ISS, 2018), considered extremely unfavorable for growth (Alesina et al, 1992). We therefore hypothesize that; countries with high FDI inflows are relatively more stable politically.

The WB measure of government effectiveness shows public and civil service quality, freedom from political pressures, policy design and application quality, government's, credibility, and commitment in policy implementation etc. Discrepancies in government functions result in ineffective governance structures which weaken economic performance (IMF 2019 WP/19/1). There is statistically significant results infavor of government effectiveness, Gangi, Y.A. and Abdulrazak, R.S. (2012). Similarly, among six indicators of good governance, government effectiveness was equally found to be

amongst the robust determinants for FDI attractiveness in Emerging countries (Younsi, Moheddine & Bechtini, Marwa, 2019). Hence, we hypothesize that, countries with relatively high FDI inflows have relatively more government effectiveness.

The WB measure of regulatory quality measures government's ability to promote private sector developmen through formulation and implementation of comprehensive policies. An empirical study using complete data set on regulations, showed that, in economies highly constrained by regulations, FDI driven growth is restricted, Busse, (Matthias and Groizard, Jose Luis, 2006). A related research, revealed that, poorly enforced investment regulations negatively affected the intra-ASEAN FDI, (Rammal, H. G. 2006). Hence, we hypothesize that extreme regulations can be deterring to inward FDI in SSA.

The WB measure of voice and accountability records freedom of expression, freedom of association, for the citizens and mass media. Existing research confirms a positive impact for institutional quality (including voice and accountability), eventhough, stressing that institutional quality is more significant in developed than for developing economies, (Sabir, S., Rafique, A. & Abbas, K. 2019). We hereby, hypothesize that, countries with relatively less voice and accountability may have relatively lower FDI inflows.

The WB measure of Control of corruption, reveals the exercise of public power for private gain. An analysis by Rahim M. Quazi Vijay Vemuri Mostafa Soliman (2014), reveals a dual yet contrasting understandings of corruption. On one side, there is the

premise that corruption hinders FDI by causing higher risks of uncertainty and transaction costs (grabbing hand). On the otherside, there is the premise that, corruption enables FDI due to weak regulatory contexts (helping hand). Nonetheless, his findings are in support of the latter premise. Elsewhere, Amarandei, Cristina Mihaela (2013), concluded that, the majority of literature that, a negative significant relation does exist between FDI and control of corruption, though at a lower intensity than expected for the ten Central and Eastern European states under study. We thus hypothesize the important effect of control of corruption on SSA inward FDI.

As concerns the control variables, relevant literatures have equally attributed FDI inflows to natural resource endowment (Asiedu, 2006), and oil reserve, is an indicator whose measure acts as a pull factor to stakeholders. Human Development Index, is an appropriate compound measure of income, life expectancy at birth plus levels of education attained. It is an alternative for the purely economic GDP, that quantifies economic growth only. Labor Force, on its part captures all people (ages 15+) who constitute the economically active population, (ILO). In a context of rising globalization, where expressions such as 'trade openness', economic integration, trade liberalization, economic globalization, financial openness, financial integration and financial globalization have been used interchangeably, the choice of economic openness indictators (trade openness and investnment freedom) for this analysis was informed by Gräbner, Claudius & Heimberger, Philipp & Kapeller, Jakob & Springholz, Florian(2018), which surveyed economic openness indicators and introduced a typology of economic openness indicators. Conclusively, we sense that, these traditional

economic determinants can have significant impact on FDI inflows into SSA irrespective of institutional quality levels.

Table 3: Summary table of the variables used in the estimation model.

Variable type	Variable name	Measure/indicator	sources
Dependent variable	FDI flows	FDI flows % of GDP	WDI-WB
Independent Variables			
Institutional Quality variables	Rule of Law	(-2.5 weak; 2.5 strong)	WGI-WB
	Regulatory Quality	(-2.5 weak; 2.5 strong)	WGI-WB
	Political Stability	(-2.5 weak; 2.5 strong)	WGI-WB
	Government Effectiveness	(-2.5 weak; 2.5 strong)	WGI-WB
	Voice and accountability	(-2.5 weak; 2.5 strong)	WGI-WB
	Control of Corruption	(-2.5 weak; 2.5 strong)	WGI-WB
Control variables (economic variables)	Human Development	(0 low – 1 high)	WGI-WB
	GDP per Capita	Current US Dollars	WDI-WB
	Labor Force	(million people)	WDI-WB
	Oil Reserves	(0 low ; 1 high)	WDI-WB
	Investment Freedom	Score (0 weak; 100 Strong)	Heritage Foundation (WB)
	Trade Openness	(X+M) % of GDP	WDI-WB
Binary-dummies	Membership into RECs	(0 non-member: 1 member)	www.un.org/en/africa/osaa/peace/recs
WDI-WB World Development Indicators-World Bank **WGI-WB Worldwide Governance Indicators-World Bank**			

Table 4: Summary Statistics of Variables.

Below summarises:, the mean, standard deviations number of observations and minimum and maximum values

Variable	Obs	Mean	Std. Dev.	Min	Max
lnIFI	457	4.51633	.3739285	2.312438	5.192988
ROL	468	-.6820726	.6019694	-1.85	1
REGQI	468	-.5964316	.5643319	-2.16	1.13
PSI	468	-.5391453	.8294526	-2.7	1.2
GEI	468	-.7460897	.5890684	-1.85	1.06
VOA	468	-.4926709	.6351141	-1.65	.94
COC	468	-.6749359	.5732702	-1.56	1.04
lnGDPP	468	7.018428	.9482389	5.120267	9.324404
lnTOR	465	4.89358	.382915	3.724828	6.434067
lnIFI	457	4.51633	.3739285	2.312438	5.192988
lnHDI	468	.4742042	.0867931	.2860817	.7295417
lnLAB	468	2.241444	1.067113	.399304	4.799159
lnORC	465	.3733791	.9105708	0	4.316332
DUM1	468	.3888889	.4880197	0	1
DUM2	468	.25	.4334761	0	1
DUM3	468	.1388889	.3462006	0	1
DUM4	468	.3611111	.4808367	0	1
llnFDI	432	.016879	1.001627	-4.38214	4.616374

- **Approximation of the association between inward FDI in SSA and Institutional Quality.**

we generate scatter plots and intuitively do a visual observation of the pattern of the association. If inward FDI in SSA tends to increase and decrease together with institutional quality variables, then the association is positive. Otherwise, if FDI tends to increase as the institutional quality variable decreases, the association is negative. If there is no pattern, then the association is zero. Hence,

Charts 3: Scatter plots of institutional quality variables and inward FDI in SSA.
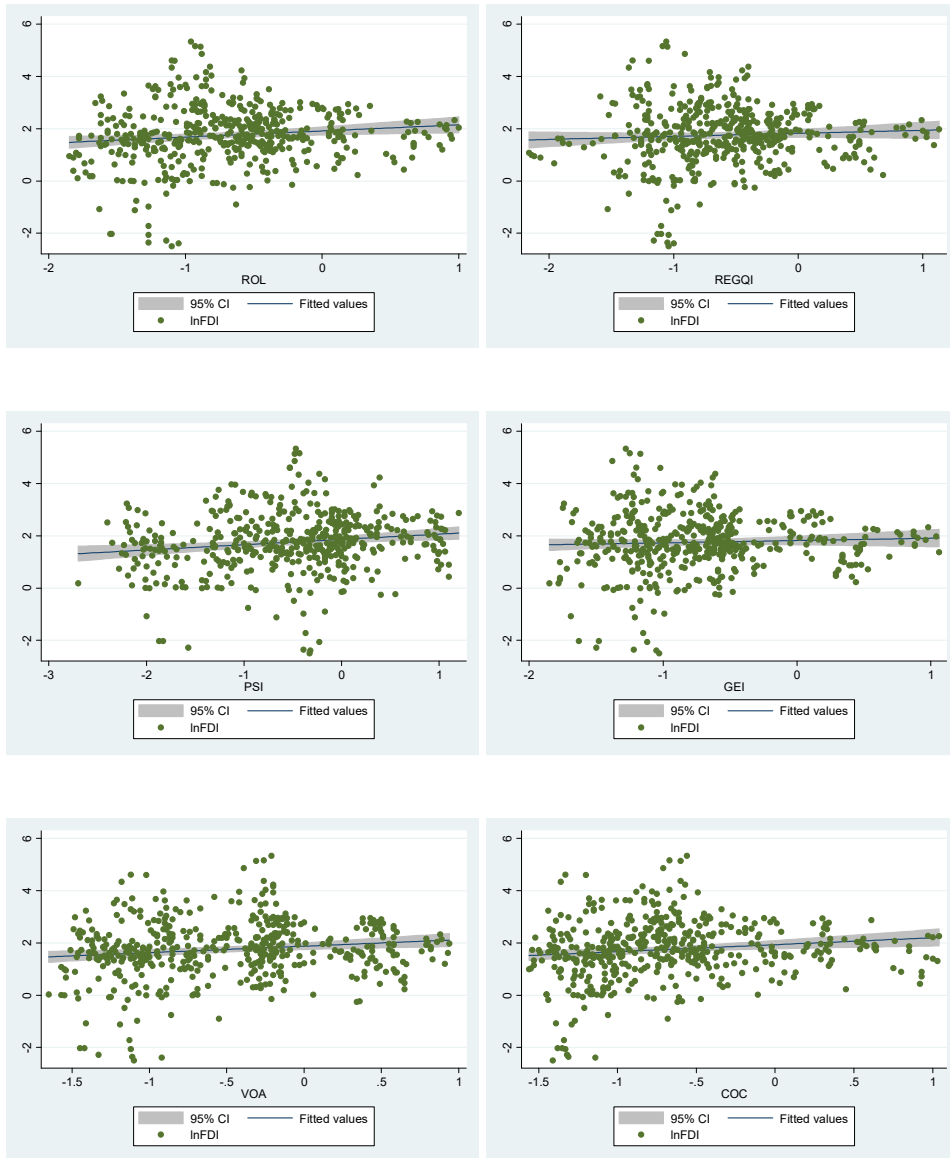
We can observe from the charts above that, the patterns of dots appear to slope from lower left to upper right, same for the line of best fit (trendlines). The relationships

between the institutional quality variables and inward FDI are all straight lines, depicting the existence of a linear association between them. We can presume, based on the charts that, inward FDI in SSA tends to increase and decrease together with Institutional quality variables. However, this visual approximation will be investigated further in subsequent chapters, when we perform the regression analysis.

3-3   Methodology and Data limitations.

- **Methodology limitations**

As earlier mentioned a quantitative experimental approach was chosen for the study, making use of the Random-Effect GLS and the First-Difference Two-Stage Least Squares (FD2SLS) estimator suggested by Anderson and Hsiao (1982) as estimators for the analysis. While emphasizing the existence of a variety of conditions which provoke endogeneity bias, parameter estimates from Random-Effect GLS are considered to be biased and inconsistent. And though, the First-Difference Two-Stage Least Squares (FD2SLS) estimator with use of Instrumental variable (IV), works to improve on this condition, it does not automatically imply a less biased IV estimate. Crown WH, Henk HJ, Vanness DJ, (2011) observes that; IV results differ from those of standard regression models which omit to resolve issues related to endogeneity; that instruments have widely varying strengths, and finally, that they are linked to error term. Nonetheless, our study proceeded through the use of an appropriate Instrumental Variable (IV) Strategy, to eliminate the serial correlation of the lagged variable with the error term. This approach is consistent with conclusions by Wooldridge, Jeffrey M. (2008) that, in the event of a

model fit to time series data using the FD2SLS, there exist a natural source of instruments in terms of predetermined variables, such that, an explanatory variable (in our case $FDI_{i,t}$) uses its own lagged values, $FDI_{i,t-1}$ or $FDI_{i,t-2}$…etc. as instruments. Since, they are generated at an earlier point in time, they are likely to be interrelated with explanatory variable and not with the residual term at time t. This process helped improve on the consistency and efficiency of our regression analysis.

- **Data limitations**

The data posed two principal limitations or difficulties which include: limited coverage overtime (data discrepancy/missing data) and the Omitted variable bias.

- **Limited coverage overtime (data discrepancy/missing data).**

While some data run as far back as 1970, some of the WGI and WDI are either very new or have not been updated. Giving rise to data discrepancy with some countries presenting very worrying situations of missing data. Consequently, the range, choice of variables and countries for the research was largely imposed by the character of data coverage overtime. We therefore proceeded, first, in a manual listwise deletion, consisting in removing observations from the data with missing values in one or more variables of essence in the accomplishment of the study. The study interval was therefore, retained from 2006-2018 and countries such as Equatorial Guinea, Ethiopia, Lesotho, Somalia and Cape Verde, Comoros, Eritrea, Sao tome and Principe, Swaziland, Sudan and South Sudan do not figure in our list of SSA countries for the analysis. Even though, the

listwise deletion reduces the sample size and the number of observations, the retained countries, still met a reasonable sample size (36 out of 48 SSA countries), and the estimations conserved their statistical power: representative enough of the original sample and permitting reliable and accurate interpretation of the data being researched.

- **Omitted Variable Bias (OVB).**

When the regression run does not have proper form and data for certain parammeters, an OVB appears in the estimate of the parameter, (ThoughtCo, 2020). By ignoring other determinants of the dependent variable which correlate with the regressors, we give room for the occurrence of the OVB. For this to occur, the omitted variable must satisfy two conditions;

- The regressor is correlated with the omitted variable and $cov(\mu_{it}, X_{it}) \neq 0$,

- The omitted variable constitutes a factor of the dependent variable, therefore is a part of μ_{it}.

These conditions lead to the violation of the **Gauss-Markov theorem** that, in the estimation model equations, the independent variables and the residuals do not correlate. Statistically, the first OLS assumption (the zero conditional mean assumption) that $E(\mu_{it} \mid X_{it}) = 0$ is violated, and the violation leads to $E(\mu_{it} \mid X_{it}) \neq 0$ or the $cov(\mu_{it}, X_{it}) \neq 0$. The larger the correlation between the regressor and error term, the larger the bias. Furthermore, the direction of the bias depends on whether X_{it} and μ_{it} are negatively or positively correlated. In our analysis, OVB is sensed in the process of including various

groupings of regressor variables in the model and observing how the parameters change. Given that, leaving out conceivably important variables creates larger residuals and reduces the goodness-of-fit, the likely consequence is biased estimates of the regression result. The omitted variables may provoke; either an overestimation or underestimation of degree of outcome, alter the sign of the outcome or, mask the real outcome. Accounting for OVB may require trading off between precision and bias. Nonetheless, deep research in this study area, suggests that, OVB is a major issue in regression analysis and that making use of instrumental variables, is a typical method to tacle the issue, (Leightner, J. E., & Inoue, T., 2012).

CHAPTER 4: Empirical Findings and Interpretation

This chapter articulates: first, the empirical findings and, secondly discussions related to the findings. To a lesser extent, the effects of control variables on inward FDI, will equally be reported and discussed.

4-1 Empirical Findings

1.1 Estimation outcome in SSA as a whole

We present sequential regressions of each institutional quality variable, first taken individually vis-à-vis the control variables, and then jointly. Tables 5, 6, and 7, respectively present, the six governance indicators on inward FDI in SSA. Table 8 on its part, presents all six institutional variables estimated and their effect on inward FDI in SSA. FDI is log-transformed, and all predictor variables except institutional quality variables are in log form. The columns 1 and 2 attributed to each variable respectively represent the variable's estimation using: the Random-Effect GLS estimator and the First-Differenced IV estimators.

Table 5: Effect of Rule of Law and of Regulatory Quality of inward FDI

	RUL1 Coef./std.~s	RUL2 Coef./std.~s	REGQ1 Coef./std.~s	REGQ2 Coef./std.~s
D.ROL	-0.0597	0.2472		
	(0.60)	(0.68)		
D.lnGDPP	-0.0204	-0.1837	-0.0782	-0.2408
	(0.46)	(0.56)	(0.46)	(0.56)
D.lnTOR	1.1866***	1.1126**	1.1793***	1.1155**
	(0.44)	(0.50)	(0.43)	(0.49)
D.lnIFI	-0.9934***	-1.0081**	-1.0138***	-1.0228***
	(0.37)	(0.37)	(0.37)	(0.39)
D.lnLAB	-3.6250	-4.9436	-3.7662	-5.0305
	(5.47)	(6.12)	(5.46)	(6.10)
D.lnHDI	25.0463**	28.0806**	23.6614**	28.2546**
	(11.95)	(13.19)	(11.84)	(13.03)
D.lnORC	0.3148	0.3162	0.3204	0.3206
	(0.75)	(0.77)	(0.74)	(0.77)
LD.l1nFDI	-0.0871***	-0.0094	-0.0933***	-0.0142
	(0.03)	(0.06)	(0.03)	(0.06)
D.REGQI			0.8467	0.7037
			(0.69)	(0.78)
_cons	-0.0356	-0.0013	-0.0243	0.0044
	(0.16)	(0.17)	(0.16)	(0.17)
No. of Obs.	345.000	311.000	345.000	311.000

Note: the tables present coefficients estimates plus robust standard errors in brackets.
T statistics in paranthesis "***p<0.01, ** p<0.05, *p<0.1"

Table 6: Effect of Political Stability and of Government Effectiveness on FDI

	PSI1 Coef./std.~s	PSI2 Coef./std.~s	GEI1 Coef./std.~s	GEI2 Coef./std.~s
D.PSI	0.3349	0.3156		
	(0.25)	(0.28)		
D.lnGDPP	0.0085	-0.1403	-0.0638	-0.2229
	(0.46)	(0.55)	(0.46)	(0.55)
D.lnTOR	1.1971***	1.1369**	1.1526***	1.1392**
	(0.43)	(0.49)	(0.43)	(0.49)
D.lnIFI	-0.9972***	-1.0010**	-1.0393***	-1.0424***
	(0.37)	(0.39)	(0.37)	(0.39)
D.lnLAB	-3.4598	-4.6579	-4.2341	-5.3340
	(5.45)	(6.10)	(5.44)	(6.07)
D.lnHDI	22.7089*	26.8587**	22.7449*	26.4635**
	(11.91)	(13.12)	(11.80)	(12.99)
D.lnORC	0.2833	0.2902	0.3563	0.3631
	(0.74)	(0.77)	(0.74)	(0.76)
LD.l1nFDI	-0.0915***	-0.0153	-0.0918***	-0.0071
	(0.03)	(0.06)	(0.03)	(0.06)
D.GEI			1.1901**	1.4502**
			(0.58)	(0.64)
_cons	-0.0222	0.0031	-0.0033	0.0209
	(0.16)	(0.17)	(0.16)	(0.17)
No. of Obs.	345.000	311.000	345.000	311.000

Note: the tables present coefficients estimates plus robust standard errors in brackets.
T statistics in paranthesis "***p<0.01, ** p<0.05, *p<0.1"

Table 7: Effect of Voice and Accountability and Control of Corruption on FDI

	VOA1 Coef./std.~s	VOA2 Coef./std.~s	COC1 Coef./std.~s	COC2 Coef./std.~s
D.VOA	-0.1030	0.1208		
	(0.50)	(0.55)		
D.lnGDPP	-0.0195	-0.1643	-0.0204	-0.1708
	(0.46)	(0.55)	(0.46)	(0.55)
D.lnTOR	1.1937***	1.1100**	1.1699***	1.1289**
	(0.44)	(0.50)	(0.44)	(0.50)
D.lnIFI	-0.9909***	-1.0045**	-0.9830***	-1.0061**
	(0.37)	(0.39)	(0.37)	(0.40)
D.lnLAB	-3.7055	-4.7892	-3.5661	-4.9008
	(5.48)	(6.13)	(5.47)	(6.12)
D.lnHDI	25.1530**	28.4290**	24.8228**	28.7658**
	(11.90)	(13.14)	(11.82)	(13.04)
D.lnORC	0.3096	0.3236	0.3132	0.3180
	(0.75)	(0.77)	(0.75)	(0.77)
LD.l1nFDI	-0.0873***	-0.0088	-0.0870***	-0.0091
	(0.03)	(0.06)	(0.03)	(0.06)
D.COC			-0.2426	0.0882
			(0.59)	(0.65)
_cons	-0.0342	-0.0074	-0.0372	-0.0051
	(0.16)	(0.17)	(0.16)	(0.17)
No. of Obs.	345.000	311.000	345.000	311.000

Note: the tables present coefficients estimates plus robust standard errors in brackets.
T statistics in paranthesis "***p<0.01, ** p<0.05, *p<0.1"

Table 8: Effect of all six institutional quality variables on FDI in SSA as a whole.

Note: 'A1' represents the estimation using the Random-Effect GLS estimator and 'A2' represents the First-Differenced IV estimator.

	A1 Coef./std.~s	A2 Coef./std.~s
D.ROL	-0.3025	-0.2304
	(0.71)	(1.22)
D.REGQI	0.5597	-1.3273
	(0.72)	(1.26)
D.PSI	0.3431	0.2539
	(0.27)	(0.45)
D.GEI	1.3296**	1.4561
	(0.64)	(1.07)
D.VOA	-0.3750	0.3063
	(0.59)	(0.99)
D.COC	-0.5818	-0.1084
	(0.65)	(1.07)
D.lnGDPP	-0.0542	0.1626
	(0.46)	(0.85)
D.lnTOR	1.1987***	1.1183
	(0.44)	(0.76)
D.lnIFI	-1.0186***	-1.7793***
	(0.37)	(0.60)
D.lnLAB	-4.2981	-5.1177
	(5.47)	(9.27)
D.lnHDI	21.2119*	26.3216
	(12.04)	(20.06)
D.lnORC	0.3152	0.6489
	(0.74)	(1.16)
LD.l1nFDI	-0.0988***	-0.1883**
	(0.03)	(0.09)
_cons	0.0117	0.0536
	(0.16)	(0.27)
No. of Obs.	345.000	311.000

Note: the table present coefficients estimates plus robust standard errors in brackets.
T statistics in paranthesis "***p<0.01, ** p<0.05, *p<0.1"

1.2 Estimation outcome across RECs

Tables 9, and 10: respectively present the effect across the RECs.

Table 9: Effect of the institutional quality for ECOWAS and ECCAS RECs

	ecowas1 Coef./std.~s	ecowas2 Coef./std.~s	eccas1 Coef./std.~s	eccas2 Coef./std.~s
D.ROL	-0.5574	0.5345	-0.2959	-0.0222
	(0.82)	(1.05)	(0.70)	(0.94)
D.REGQI	0.8720	0.2620	-0.8549	-0.1095
	(0.83)	(1.07)	(0.73)	(0.97)
D.PSI	0.1400	0.3622	-0.0707	-0.0043
	(0.30)	(0.37)	(0.30)	(0.38)
D.GEI	1.6194**	2.4126**	0.2644	0.3698
	(0.77)	(0.94)	(0.65)	(0.87)
D.VOA	-0.9582	-0.7339	-0.8795	-0.1487
	(0.90)	(1.19)	(0.54)	(0.71)
D.COC	-1.1423	-1.6274*	-0.5573	0.4812
	(0.78)	(0.98)	(0.63)	(0.80)
D.lnGDPP	-0.2335	-0.0897	-0.1771	-0.0624
	(0.41)	(0.56)	(0.40)	(0.56)
D.lnTOR	0.8802**	1.1757**	0.9833**	1.3100***
	(0.40)	(0.50)	(0.38)	(0.50)
D.lnIFI	-0.0962	-1.0317***	-0.0366	-0.9712**
	(0.33)	(0.40)	(0.31)	(0.39)
D.lnLAB	-7.7694	-5.5609	-7.0343	-5.3893
	(6.42)	(6.12)	(6.37)	(6.08)
D.lnHDI	24.6865**	23.7438*	20.5101*	22.4799*
	(10.81)	(13.34)	(10.59)	(13.34)
D.lnORC	0.0472	0.3896	-0.0556	0.4100
	(0.68)	(0.77)	(0.66)	(0.76)
oD.DUM1	0.0000	0.0000		
	(.)	(.)		
D.ROL*DUM1	0.5257	-1.6574		
	(1.29)	(1.71)		
D.REGQI*DUM1	-1.7834	0.2125		
	(1.32)	(1.69)		
D.PSI*DUM1	-0.1167	-0.2697		
	(0.50)	(0.60)		
D.GEI*DUM1	-1.5416	-2.3145		
	(1.13)	(1.44)		
D.VOA*DUM1	-0.2642	0.8808		
	(1.12)	(1.45)		
D.COC*DUM1	1.4438	2.8569**		
	(1.14)	(1.42)		
LD.l1nFDI	0.0439	-0.0205	0.0326	-0.0415
	(0.03)	(0.06)	(0.03)	(0.06)
oD.DUM2			0.0000	0.0000
			(.)	(.)
D.ROL*DUM2			-0.3112	-0.3080
			(1.39)	(1.86)
D.REGQI*DUM2			3.3201**	1.7212
			(1.37)	(1.85)
D.PSI*DUM2			0.4105	0.6785
			(0.47)	(0.60)
D.GEI*DUM2			1.9617*	2.8329*
			(1.17)	(1.49)
D.VOA*DUM2			0.0894	0.0822
			(1.51)	(1.89)
D.COC*DUM2			0.5164	-2.8801*
			(1.32)	(1.69)
_cons	1.8624***	0.0276	1.8594***	0.0388
	(0.20)	(0.18)	(0.21)	(0.17)
No. of Obs.	345.000	311.000	345.000	311.000

Note: the tables present coefficients estimates plus robust standard errors in brackets.
T statistics in paranthesis "***p<0.01, ** p<0.05, *p<0.1"

Table 10: Effect of the institutional quality for EAC andSADC member States.

	eac1 Coef./std.~s	eac2 Coef./std.~s	sadc1 Coef./std.~s	sadc2 Coef./std.~s
D.ROL	-0.6331	-0.3203	-1.0956	-1.3473
	(0.66)	(0.88)	(0.70)	(0.93)
D.REGQI	0.2721	0.2626	0.4705	0.4521
	(0.68)	(0.92)	(0.76)	(1.00)
D.PSI	0.1614	0.2938	0.3115	0.5981*
	(0.27)	(0.34)	(0.27)	(0.33)
D.GEI	0.9666	1.5197*	0.6896	0.9841
	(0.59)	(0.79)	(0.63)	(0.84)
D.VOA	-0.9392*	-0.1010	-0.8870	0.1522
	(0.53)	(0.70)	(0.57)	(0.72)
D.COC	-0.6420	-0.4517	0.0002	0.2484
	(0.61)	(0.79)	(0.66)	(0.83)
D.lnGDPP	-0.2803	-0.2159	-0.0459	0.1384
	(0.40)	(0.57)	(0.40)	(0.56)
D.lnTOR	0.7512*	1.1612**	0.7226*	1.1291**
	(0.39)	(0.51)	(0.38)	(0.49)
D.lnIFI	-0.0619	-1.0220**	0.0217	-0.9181**
	(0.32)	(0.40)	(0.31)	(0.39)
D.lnLAB	-7.9066	-5.6473	-6.4436	-4.0578
	(6.49)	(6.27)	(6.44)	(6.04)
D.lnHDI	27.2665***	25.3993*	23.4254**	18.1360
	(10.55)	(13.42)	(10.43)	(13.25)
D.lnORC	-0.0655	0.3094	0.0093	0.4488
	(0.67)	(0.78)	(0.66)	(0.76)
oD.DUM3	0.0000	0.0000		
	(.)	(.)		
D.ROL*DUM3	1.4961	1.2632		
	(1.83)	(2.44)		
D.REGQI*DUM3	-0.3844	-0.5346		
	(1.85)	(2.49)		
D.PSI*DUM3	-0.3922	-0.1343		
	(0.56)	(0.73)		
D.GEI*DUM3	0.1136	-0.1756		
	(1.52)	(1.96)		
D.VOA*DUM3	-0.0115	-0.9708		
	(2.18)	(2.39)		
D.COC*DUM3	0.9466	0.6352		
	(1.51)	(1.87)		
LD.l1nFDI	0.0499*	-0.0147	0.0479*	-0.0405
	(0.03)	(0.06)	(0.03)	(0.06)
oD.DUM4			0.0000	0.0000
			(.)	(.)
D.ROL*DUM4			3.0291**	5.0226***
			(1.38)	(1.79)
D.REGQI*DUM4			-0.9902	-1.1816
			(1.32)	(1.70)
D.PSI*DUM4			-1.0903**	-1.6152**
			(0.56)	(0.72)
D.GEI*DUM4			1.0290	1.8019
			(1.20)	(1.55)
D.VOA*DUM4			-0.8287	-2.3508
			(1.27)	(1.85)
D.COC*DUM4			-1.6599	-2.4458
			(1.18)	(1.50)
_cons	1.8533***	0.0328	1.8266***	0.0198
	(0.21)	(0.18)	(0.21)	(0.17)
No. of Obs.	345.000	311.000	345.000	311.000

Note: the tables present coefficients estimates plus robust standard errors in brackets.
T statistics in paranthesis "***p<0.01, ** p<0.05, *p<0.1"

4-2 Interpretation and discussion of the estimation results.

We report regression outcome followed by discussion of the results.

2.1   Interpretation of the effects on inward FDI in SSA

As concerns the outcome on inward FDI in SSA, the individual and joint estimations of the institutional quality on inward FDI in SSA as a whole, show positive and statistically significant (5% level), for Government Effectiveness (GEI) (Table 7: columns 3 and 4; Table 8 column 1). Government Effectiveness appears as a major determinant of inward FDI in SSA as a whole. Given that the coefficients for institutional qualities are obtained from log-level regressions, in the event of a unit increase in Government Effectiveness for instance, we expect FDI to change by $100*(e^{\beta} - 1)$. Therefore, $100*(e^{1.3296} - 1)=$ 277.95%. Hence, for the coefficient 1.3296, a unit increase in Government effectiveness will cause a 277.95% (close to 3X initial value) increase in inward FDI. Similarly, an increase in Government effectiveness by a unit of standard deviation will cause an increase in inward FDI by (1.3296*.5890684=0.7832). The other institutional variables do not indicate any evidence of statistically significant impact on inward FDI in SSA as a whole. Interestingly, the effects seem to vary when the estimations are done within the regional framework (in the RECs).

2.2   Interpretation of the effects on inward FDI across RECs

It can be generally observed that institutional quality variables do have an impact on inward FDI for different groups of RECs. In effect, we observe that Control of corruption presents statistically significant results, though the effect varies across regional

economic groups. evidently, Table 9: column 2, shows that, on average for ECOWAS members, Control of Corruption (COC) matters (at 5% level) and, is a key determinant with direct impact on inward FDI. Whereas, COC is statistically significant at (10% level) with a negative effect on inward FDI for the ECCAS group of countries. we equally note, from Table 9: columns 3, evidence (at 10% level), of an inverse relationship between inward FDI and Control of Corruption for the ECCAS community. The results indicate statistically significant and strong results (at 5% level) that, on average, there are group(s) of non-ECOWAS members for which Government effectiveness (GEI) matters and is a key determinant with a positive(direct) effect on inward FDI. (Table 9: columns 1 and 2). Indeed, in columns 3 and 4, there is statistically significant results (at 10% level) in favor of positive(direct) and robust effects of Government Effectiveness in the ECCAS group of countries. Table 9: column 3, equally shows, significant statistical evidence (at 5% level), of possitive effects of Regulatory Quality on inward FDI for the ECCAS region. We further observe in Table 10: columns 3 and 4 that, strong evidence (at 5% and 1% levels respectively), pointing to direct effects of Rule of Law (ROL) for the SADC member countries. Though, Table 10: column 4, shows some significant evidence (at 10% level) that, Political Stability (PSI), equally has positive effect on inward FDI for non-SADC members, there is however, strong evidence (at 5% level), pointing to negative effects of Political Stability, on inward FDI for the SADC member countries. we observed no statistical significant evidence of Voice and Accountability effects on inward FDI across the regional economic communities.

2.3   Other findings.

In all the estimations, we observe strong significant statistical evidence (at 1% and 5% levels) that, Trade Openness (TOR) exerts a positive effect on inward FDI in all SSA economies under study. We note for example that 1 percentage change in TOR provokes a 1.1987 percent increase in FDI inflow into SSA. Similarly, in all the estimations, the coefficients observed for Human Development, indicate very strong statistical evidence of the rule of Human Development in attracting FDI into SSA countries, offering a 21.213 percent increase in inward FDI for each percentage increase in human development. In addition, Investment Freedom displays strong statistical evidence, with negative effects on inward FDI in SSA, such that, a percentage increase in Investment Freedom provokes a 1.019 decrease in inward FDI. The estimated coefficients of lagged FDI on their part, indicate highly significant statistical evidence of negative autocorrelation. This could mean that, the investment returns from preceding FDI investments, constitute a momentum factor, which seems to influence future FDI investment decisions. The coefficients obtained for: (LAB), Oil Reserves (ORC) and GDP per Capita (GDPP), do not show statistically significant evidence of meaningful impact by these variables on inward FDI in the SSA regions. We equally observed a total absence of linear association between inward FDI and RECs. This further emphasizes the difficulty to clearly establish a link between FDI and regional economic communities.

2.4   Discussion of the results

Globally, our estimations revealed strong evidence at various levels of statistical significance, that institutional quality matters for inward FDI in SSA and its regional economic framework.

Government Effectiveness (GEI) appears as the single major determinant of inward FDI in SSA as a whole (Table 7 columns 3 and 4; Table 8 column 1). This confirms previous research conducted by Younsi, Moheddine & Bechtini, Marwa, (2019). Though results indicate that Government effectiveness matters on average for non-ECOWAS economies, the results point to ECCAS: (Angola, Burundi, Cameroon, Central African Republic, Chad, Congo DR., Gabon, Republic of Congo, and Rwanda), as the regional group with most significant evidence of positive effects of government effectiveness on inward FDI. Going by the 2017, Institute for Security Study (ISS) report, the ECCAS region relatively lags behind other RECs, presenting lowest scores for government effectiveness. In a scale of 0 to 5, while the EAC, SADC and ECOWAS had positive scores of 1.7 on average, ECCAS region registered the lowest score 1.3, very far below the Africa average of 2.1. This may partly explain the observed trend in the Flow of inward FDI in ECCAS region, although, the difference with other RECs may equally be accounted for by other institutional and economic variables, whose degree of impact override that of government effectiveness.

The important role of Control of corruption as a key determinant of inward FDI in SSA is revealed for the ECOWAS and ECCAS regions. This results confirm previous finding

(Amarandei, Cristina Mihaela, 2013), wherein, a negative significant relation exist between FDI and control of Corruption. However, Rahim M. Quazi Vijay Vemuri Mostafa Soliman, (2014), indicate a dual yet contrasting understanding of corruption. On one side, there is the premise that corruption hinders FDI by causing higher risks of uncertainty and transaction costs (grabbing hand). On the otherside, there is the premise that, corruption enables FDI due to weak regulatory contexts (helping hand). Indeed, on average for ECOWAS members, Control of Corruption (COC) matters with positive effect on inward FDI for the region. This seemingly goes inline with the "helping hand" hypothesis that, due to weak regulatory frame work, corruption can facilitate inward FDI. By contrast, for the ECCAS group of countries Control of Corruption portrays a negative effect on inward FDI, and this is seemingly inline with the "grabbing hand" hypothesis that corruption can impede FDI inflow to the regions. The 2017, ISS report, indicates that, on a scale of 0 to 10, the corruption perception, for all regional groups are low, implying high levels of corruption within the public sector. The CEMAC and ECOWAS groups of countries respectively score 2.3, and 2.9, and this could partly explain why there is a revealed significant impact of control of corruption on inward FDI for these regions. However, the effects of economic variables such as trade openness, human development and investment freedom cannot be excepted.

The important role of political stability (Table 10: column 4), as a key determinant of inward FDI in SSA is consistent with the argument that political factors explain FDI inflows (Haksoon, 2010), and political stability has positive impact on FDI inflows,

Afzali, F.A. (2019). It is equally confirming the conclusion by Olatunji and Shahid (2015) that, SSA economies unaffected by conflict or political instability have relatively more FDI inflows than for economies with crisis. Though, having on average a strong positive evidence of effect on inward FDI for non-SADC members, political stability is revealed to matter most for SADC member countries, with strong unexpected negative effects on inward FDI in the region. As indicated by a 2018, ISS report, Elections in SADC have been considered a source of instability and human insecurity especially as SADC member States are reluctant to internalize principles and guidelines governing democratic elections. The region is reported to be limited by functionally weak institutions at both national and regional levels as opposed to ECOWAS, which offered some valuable lessons since 2001, of a Democracy and Good Governance protocol, informed by shared constitutional convergence principles with clear incentives to promote democracy and stringent mechanisms for sanctioning errant states (2018, ISS report). Overall, SSA is still relatively very politically unstable (Alexandra Dumitru and Raphie Hayat, 2015). Multiple structural pressures increase likelihoods of instability and fierce struggles for the region (ISS, 2018). Therefore, political uncertainty, adds to the existing list of disapproving economic factors which may account for FDI inflows in SSA and SADC most especially.

The Rule of law is equally specified to have strong statistical evidence as an important determinant of FDI inflow into SADC member countries. This direct effect is consistent with affirmation that, nations with more trustworthy, efficient legal systems, are more

likely to attract FDI than nations with troubled legal institutions (Rule of Law Alliance, 2016). This is based on the fact that, rule of law compliance offers high levels of legal and political safeguards ensuring high levels of financial security. Although, overall governance in Africa has improved in the last decade, 33 out of the 54 African countries showcase pronounced and concerning drops in safety and rule of law (Ibrahim Index of African Governance (IIAG), 2016). Moreover, Fombad, Charles M, & Kibet, Eric. (2018), (citing Peter Shivute, (2017)), in his observations that, levels of respect for rule of law vary across countries in SSA, and some have done more than others to achieve this goal. He further adds that, in SSA, there are many signs of creeping authoritarianism and this is common not only in countries with a good record on democracy (SADC=Bostwana and South Africa) but also in countries which use democracy as a charade behind which despotism is dissimulated such as Cameroon (ECCAS) and Zimbabwe (SADC). This may account amongst other factors, for the important role of rule of law in determining SADC FDI inflow.

The important role of regulatory quality in the ECCAS region is well indicated and consistent with Busse, Matthias and Groizard, Jose Luis, (2006), and Hussain Gulzar Rammal, Ralf Zurbruegg, (2006) that, regulatory quality can impact inward FDI. Eventhough, SSA are making major attempts to improve on the regulatory framework in the form of business regulatory reforms, the effort is not without major challenges, with continually overpriced business incorporation, which seem far more multifaceted

in the ECCAS than in other regions on average (Melissa Johns[3]). Therefore, the ability of SSA governments to formulate and institute sound regulatory framework, is vital and matters when it comes to FDI flows into the region.

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[3] Advisor, Global Indicators Group, Development Economics, World Bank Group.

CHAPTER 5: Conclusions and Policy Recommendations

Our study investigated institutional quality and its impact on inward FDI in 36 SSA countries between 2006-2018. With the help of two dynamic panel data techniques :(Random Effect GLS and the First-Difference Two-Stage Least Squares (FD2SLS) estimator through Instrumental Variable (IV) Strategy), we explored the effect of institutional quality on inward FDI in SSA and in four of its regional framework (ECOWAS, ECCAS, EAC and SADC). By reviewing FDI as a contributor of Growth, and its connecting determinants (our point of interest), we defined a scope, purpose and significance of the current research. Variables were carefully chosen and hypotheses formulated based on a demonstrated track record in literature review. Multiple estimation regressions were run using six governance indicators to capture the effect of each of them on inward FDI in SSA as a whole, and across RECs. The research results, interpretation and discussions permitted a comprehensive and conceptual conclusion that: for the period under study, Institutional quality mattered for inward FDI in SSA and for the RECs. Though, similar to conclusions by Mayanja Bbale & John Bosco Nnyanzi (2016), an in-depth observation of our research outcome reveal more. In effect, though institutional quality conceptually matters for inward FDI in the 36 SSA countries under study, the outcome varies enormously across regional blocs. Indeed, estimations performed by interaction of each governance indicator with each REC, extended the list of key determinants of inward FDI in SSA. As highlighted in the discussion section, while rule of law and political stability appeared as crucial determinants in the SADC,

control of corruption and political stability seemed to matter most for the ECOWAS regional bloc. Political stability, control of corruption, regulatory quality, and government effectiveness appeared as key determinants for ECCAS. The estimations with EAC region didn't reveal any key institutional determinants for inward FDI, yet, we noted (from Tab 10:column 4) that, EAC belongs to the group of non-SADC countries for which, on average political stability mattered. Additionally, non-institutional determinants such as Trade Openness (TOR), Human Development (HDI) and Investment Freedom (IFI), were equally found to display strong statistically significant effects on inward FDI in SSA. Overall, we equally note that, the results seem to reflect low levels of institutional quality and its limited role in attracting inward FDI. This conclusion falls in line with Sabir, S., Rafique, A. & Abbas, K. (2019), who found the effect to be more pronounced for developed than developing economies. The results equally are in support of the assertion by Peter Shivute, (2017), in <<Rule of Law in SSA: an overview>> that, some countries have done more than others in achieving specific goals in specific domains of institutional quality. This is because, the regional economic communities autonomously follow integration agendas and engage in agreements which precede their interest first before that of all SSA countries as a whole.

The above conclusions permit a guided formulation of the following policy recommendations for countries in SSA in general and the regional economic communities to which they respectively belong. Conceptually and from a general perpective, all the SSA countries should seek to reinforce efforts pledging for more

institutional quality by ensuring increased quality of governance indicators, given that, they appear as determinants of inward FDI in SSA. However, the outcome of this research commands a more systematic approach to achieve this goal. ECCAS countries while aiming for better and stronger institutional quality, should specially focus on improving levels of: government effectiveness, regulatory quality, control of Corruption, and political stability. Same logic applies to ECOWAS member states which should make it a point, to improve on control of corruption and political stability. In the quest for greater institutional quality, SADC member states should work towards reinforcing rule of law and guarantee more political stability, while EAC States should work to improve institutional environment.

Given that the challenges of achieving these goals can be national and regionally interconnected, it necessitates solutions which promote regional economic convergence and harmonization around norms and principles which can guarantee easy, regulation, adoption, and implementation of democracy and good governance for member States. A key example of such an approach is the ECOWAS Protocol on Democracy and Good Governance which is informed by shared constitutional convergence principles with clear incentives to promote democracy and stringent mechanisms for sanctioning errant states. It is important to reinforce capacities of the African Peer Review Mechanism (APRM) on the promotion of good governance in Africa. This would increase member countries ability to assume own-evaluation of governance. Also, there is need to continually spur a responsible discourse amongst SSA countries on perceptions of good

governance and the role of quality institutions to drive the economy forward. This fallls inline with the propositions of African Good Governance Network (AGGN).

Despite tremendous effort put in the realization of this research and arrive at the above conclusions, it is with a fair-mind that we affirm that, there is room for further interrogations on this research and other research works. This is true, especially when we note that, the methodology used only aims for a fair balance between bias and result precision. Even so, subgroup analysis (RECs) still suffers the limitations of any observational investigation, including possible bias, resulting from other confusing study-level characteristics and, the likelihood of incorrectly obtaining high confidence effects for subgroups (Buyse ME,1987)[4].

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[4] Analysis of clinical trial outcomes: some comments on subgroup analyses. Control Clin Trials. 1989 Dec; 10(4 Suppl):187S-194S

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국문 초록

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본 연구는 2006-2018 년 동안 사하라 이남 아프리카 36 개에서 국가의 제도의 질을 확인하고 그것이 FDI 유입에 미치는 영향에 대해 살펴보았다. 사하라 이남 아프리카 전체와 사하라 이남 아프리카의 지역 경제 공동체(Regional Economic Communities – RECs) 각각에서 가장 중요한 제도의 질 변수들을 조사했다. 이 목적을 달성하기 위하여, 두 가지 동태적 패널 데이터 모형이 쓰였다 (첫째, Random Effect GLS; 둘째, 도구적 변수를 이용한 the First-Difference Two-Stage Least Squares (FD2SLS) estimator). 실증적인 연구 결과는 사하라 이남 아프리카에서 제도의 질은 FDI 유입에 영향이 없는 것으로 나타났다. 사하라 이남 아프리카 36 개국에 대한 분석에서는 정부 효과성(government effectiveness)이 FDI 유입의 주요 변수인 것으로 나타났다. 그러나, 그 영향은 REC 그룹에 대한 분석에서는 다양한 수준에서 훨씬 더 높은 영향이 있는 것으로 나타났다. 결과는 법의 지배(the rule of law)와 정치적 안정성(political stability)이 SADC 지역의 중요 결정요인인 반면에, ECOWS 지역에서는 정치적 안정성(political stability)과 부패 관리(control of corruption)가 가장 중요한 것으로 나타났다. ECCAS 지역에서는 정부 효과성(government effectiveness), 규제의 질(regulatory quality), 정치적 안정성(political stability), 부패 관리(control of corruption)가 주요 결정요인으로 나타났다. EAC 지역에서는 유의한 영향

요인이 없었지만 EAC 지역은 평균적으로 정치적 안정성이 중요한 나라에 속한다. EAC 지역은 FDI 유입에 대한 주요 결정 요인을 밝히지 않았지만, EAC 는 평균적으로 정치적 안정성이 중요한 비-SADC 국가 그룹에 속한다. 또한, 무역 개방도(trade openness), 인간개발지수(human development) 투자 자유(investment freedom)는 사하라 이남 아프리카 국가 대상 분석과 REC 대상 분석에서 FDI 유입에 대한 영향이 있다는 강력한 통계적 수치를 보여주었다. 위의 결과를 기반으로 사하라 이남 아프리카 및 REC 지역에 있어서 FDI 유입을 방해하는 제도적 요인들을 다룰 수 있는 정책 마련을 고려해볼 수 있다. 사하라 이남 아프리카 국가들은 일반적으로 제도의 질을 향상시키기 위해서 노력해야하지만, 이 연구는 RECs 가 제도적 질의 주요 결정요인의 수준을 강화하는데 초점을 맞추는 것이 중요할 것이다. 또한, 회원 국가들이 규범과 원칙들에 대해서 지역적으로 수렴하고 보완성을 강화하는 것도 마찬가지로 중요할 것이다. 그것들은 거버넌스를 개선하기 위한 국가 수준의 채택과 실행을 보장할 수 있을 것이다. 그리고 무역 개방도와 인간 개발지수를 높이는 정책들이 사하라 이남 아프리카에 FDI 유입를 유치하는 데 가치가 있을 것이다.

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