Financial Globalization and Economic Growth in Sub-Saharan Africa: The Role of Institutional Quality

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Abstract: The paper examines the role of institutional quality in the effect of financial globalization on economic growth in sub-Saharan Africa (SSA). The study used a dynamic panel Generalised Method of Moment (GMM) test in estimating the data. The paper finds that financial globalization has a negative and significant impact on economic growth in SSA. The results further show that institutional quality (measured by government effectiveness) lessens the negative effect of financial globalization on economic growth in SSA. The paper concludes that institutional quality mitigates the negative effect of financial globalization on economic growth in SSA. Therefore, governments in this region should put in place appropriate mechanism that will stimulate government effectiveness in order to derive the benefits of financial globalization which in turn enhance economic growth.

Keywords: Financial Globalization; Institutional Quality; Economic Growth; GMM; sub-Saharan Africa

JEL Classification: B26

1. Introduction

Financial globalization[3] refers to rising global linkages through cross-border financial flows. In theory, it can be measured in two ways, namely: *de jure* and *de facto* financial globalization. The capital account restrictions measure reflects the existence of *de jure* restrictions on capital flows, while the financial openness measure captures *de facto* financial globalization in terms of realized capital flows (Prasad et al., 2007).

The volume of financial globalization increased significantly in the mid-1980s, and the pace of increase has further accelerated in the 2000s in the wake of financial liberalization in many countries. SSA experienced significant increase in financial globalization in 1980s by average of US$137.03 million. The pace of increase further

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[3] Financial globalization and financial integration are used interchangeably in this study.

accelerated in 2000s by average of US$209.54 million, but recorded a fall in financial globalization in 2005 up-to 2008 by average of US$17.59 million; while significant increase in international financial flows was recorded right from 2009 up-to 2014 by average of US$627.02 million.

Financial globalization sometimes considered as a virtue, since they are expected to enhance economic growth through technology transfer, resource reallocation, and capital accumulation. At the same time, they are sometimes blamed for increasing a country's vulnerability to international financial crises, which tend to occur during periods of sudden reversals in international capital flows (Osada & Saito, 2010; Castiglionesi, Feriozzi & Lorenzoni, 2015). Hassen (2018) reveals that foreign direct investment (FDI) flows to countries with better growth performance. Broner and Ventura (2016) contend that financial globalization destroys domestic trade and creates capital flight. If the country is very poor, this does not matter much because this trade was small to start with. Thus, financial globalization still leads to capital inflows and raises investment and growth in very poor countries. If the country is not very poor, capital flight is sizable and leads to capital outflows that lower investment and growth.

For this benefit to be realised in SSA, certain conditions need to be met. It was argued in literature that threshold hypothesis states that certain minimum conditions have to be met before a country can be expected to benefit from financial globalization. Otherwise, the country could experience more crises and lower growth[1]. In theory, financial globalization could raise a country's economic growth rate through a number of channels, including augmenting domestic savings for local investment, improving sharing of consumption risks, disciplining national governments into pursuing better policies in macroeconomic and other areas.

Nguyen, Su and Nguyen (2018) find that institutional quality impedes the positive effects of FDIs and trade openness on economic growth in emerging economies. The era of financial globalization might be associated with high or low growth rates in economic activities in sub-Saharan Africa (SSA). However, there is need to investigate the role that institutional quality plays in the financial globalization – economic growth nexus in SSA. This is necessary in order to guide for effective policy making in the region.

The paper is organized as follows: section one provides the introduction; section two presents the literature review; section three provides methodology; section four discusses the empirical results; and section five provides concluding remark.

[1] See (Prasad et al., 2003; Kose et al., 2006; Kunieda, Okada & Shibata, 2011).

2. Literature Review

Financial globalization and financial integration are, in principle, different concepts. Financial globalization is an aggregate concept that refers to rising global linkages through cross-border financial flows. Financial integration refers to an individual country's linkages to international capital markets. Clearly, these concepts are closely related.

This study makes distinction between *de jure* and *de facto* financial integration. *De facto* financial globalization is associated with policies on capital account liberalization and actual capital flows. For example, indicator measures of the extent of government restrictions on capital flows across national borders have been used extensively in the literature. *De facto* indicates that countries are quite open to global financial flows. By contrast, some countries in Africa have few formal restrictions on capital account transactions but have not experienced significant capital flows (Prasad et al., 2007). The analysis in this study will focus on *de facto* measures of financial globalization, as it is virtually impossible to compare the efficacy of various complex restrictions across countries.

The volume of financial globalization has risen substantially in the last decade. The increase in international capital flows to developing countries is the outcome of both "pull" and "push" factors. Pull factors arise from changes in policies and other aspects of opening up by developing countries. These include liberalization of capital accounts and domestic stock markets, and large-scale privatization programs. Push factors include business cycle conditions and macroeconomic policy changes in industrial countries. From a longer-term perspective, this latter set of factors includes the rise in the importance of institutional investors in industrial countries and demographic changes.

In theory, financial globalization could raise a country's economic growth rate through a number of channels, including augmenting domestic savings for local investment, improving sharing of consumption risks, disciplining national governments into pursuing better policies in macroeconomics and other areas. Yet, a massive body of empirical studies has often found mixed results, suggesting that the benefits are not straight forward. Surveys by Eichengreen (2001) and Prasad *et al*. (2003) suggest that it is not easy to find a strong and robust causal effect from financial globalization to economic growth, especially for developing countries. Kazar1 and Kazar (2016) conclude in their work that within the process of globalization, the fact that some countries have significant gains, whereas others become more sensitive to the financial crises.

Klein (2005) using panel OLS of 71 countries, found that the effect of capital account liberalization on economic growth varies with institutional quality. He also found that there is a strong correlation between institutional quality and income per capita,

and the countries that tend to benefit significantly from capital account liberalization are mostly upper-middle-income countries. Peres, Ameer and Xu (2018) provide evidence that institutional quality positively and significantly impacts FDI in developed countries while the results for the developing countries demonstrate that the institutional quality impact is insignificant because of the weak structure of institutions. Magdalena and Maren (2018) find that growth has a positive impact on FDI inflows in middle income countries, but relationship between institutional qualities and FDI inflows was not found in the countries.

Wei (2006) using a panel OLS for 179 countries, found that financial globalization did not lead to an automatic improvement in many developing countries[1]. Wei further reported in his findings that the threshold and composition effects can be closely related (two sides of the same coin). Wei's findings furnish evidence that these two types of institutions can indeed have different effects on the structure of capital inflows i.e. bad public institutions strongly discourage foreign direct investment (FDI), and possibly foreign debt. In comparison, low financial sector development discourages inward portfolio equity flows but encourages inward FDI. Friedrich, Schnabel and Zettelmeyer (2010) found that the European transition region benefited much more strongly from financial integration in terms of economic growth than other developing countries since the late 1990s. Wako (2018) found that Chinese aid outperforms aggregate aid from traditional donors with respect to growth; however, it has a negative institutional effect. Awoyemi and Jabar (2014) posit that financial globalization integrates the world financial markets and this integration entails uniformity in terms and conditions for raising international loans across national boundaries.

Kunieda, Okada and Shibata (2011) using panel GMM, found that highly corrupt countries impose higher tax rates than do less corrupt countries, thereby, magnifying the negative impacts of government corruption on economic growth in the highly corrupt countries and reducing the impacts in the less corrupt countries if capital account liberalization is enacted. Schularick and Steger (2006) using dynamic panel system GMM, found that financial integration had a statistically significant and robust effect on growth in the first era of global finance. They also reported from their findings that currency stability and low interest rates in the core economies might have been an important factor contributing to stable and long-term capital flows from rich to poor.

Svrtinov, Krume and Vlatko (2013) assert that financial globalization creates tremendous potential benefits for developing countries and emerging markets, as they integrate financially with the rest of the world. They argue further that globalization stimulates the development of financial sector and, in turn, spurs the

[1] Country with minimum threshold and composition hypotheses benefits from financial globalization Wei (2006).

advancement of economies. On the other hand, financial globalization also carries some risks. One well-known risk is that globalization can be related to financial crises. Asongu, Koomson and Tchamyou (2017) reveal that financial globalization uncertainty does not significantly affect money supply, financial system deposits and financial size. Egbetunde and Akinlo (2015) contend that there is a long run relationship between financial globalization and economic growth in sub-Saharan Africa. They further argue that sub-Saharan African economies will benefit from the era of financial globalization in the long run in as much the governments promote and encourage sound macroeconomic policies and strong institutions. Pologeorgis (2016) concludes in his work that globalization brings the reorganization of production, international trade and the integration of financial markets.

Moreover, Tchereni, Sekhampu and Ndovi (2013) found that foreign debt had a statistically insignificant and negative impact on economic growth in Malawi. They recommended that the country should strive to provide incentives to local manufacturers who would want to export rather than relying on borrowing for growth inducement. In another study, Eregha (2012) examined the crowding out or crowding in effect of FDI inflow on domestic investment in Africa and employed a recent panel cointegration estimation technique. He found that FDI inflow crowds out domestic investment in the ECOWAS region and recommended that policy makers in the ECOWAS countries should focus on promotional resources to attract some types of FDI and regulate others. He further recommended that policies should also be directed at putting in place a better targeted approach to screen FDI applications to ascertain their productive base before allowing them. Muye & Muye (2017) find that causality runs from FDI to institutions, and institutions in turn Granger cause financial development specifically in the banking sector in the economic blocs. Ciesielska and Kołtuniak (2017) reveal that in the long term the outward FDI stocks' growth permanently precedes the home country's economic growth.

Nsiah and Wu (2014) argued that the study of the determinants of FDI to Africa which has attracted some attention, the possible impact of neighbouring nations on proximate nation's ability to attract FDI has largely been ignored. The omission of spatial effects regardless of estimation methodology may lead to biased estimates. They used panel data on African countries and tested for local spatial linkages in FDI inflows to Africa. They found that all proximity weights generate statistically significant spatial linkages except for the case where the weight is a combination of regional trade agreements and distance. Tumwebaze and Ijjo (2015) examined the contribution of COMESA integration to economic growth in the region using instrumental variables GMM regression in the framework of a cross-country growth model. They found no significant empirical support for a positive growth impact on the region from the integration. They argued that growth in capital stock, population, world GDP and the level of openness to international trade turned out to be the most

robust drivers of growth in the COMESA region over the period. On the other hand, most economists agree that globalization provides a net benefit to individual economies around the world, by making markets more efficient, increasing competition, limiting military conflicts, and spreading wealth more equally around the world. However, the general public tends to assume that the costs associated with globalization outweigh the benefits, especially in the short-term (Kuepper, 2016).

Summarily, most of studies focused on the developed economies on the role that institutional quality plays in the financial globalization – growth nexus. There is need to investigate the role that institutions play in the nature of relationship between financial globalization and economic growth in SSA, hence this paper.

3. Methodology and Materials

The study relied on secondary data and utilized annual time series data. Empirical investigation was carried out on the basis of the sample covering the period 1980 to 2015 for twenty-one countries in SSA, namely: Botswana, Burundi, Cameroon, Central African Republic, Chad, Congo, Gabon, Gambia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Nigeria, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Togo and Zambia[1].

Regarding financial globalization, Kose *et al*. (2009) argue in favour of quantity-based, *de facto* measures and the early literature had used mostly *de jure* measures, such as those based on the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). However, such measures do not fully capture the degree of enforcement and effectiveness of capital controls as well as regulations in other fields that affect capital flows. In addition, domestic financial markets might not be liquid enough to efficiently diminish price differentials, so that price-based measures may under estimate the true degree of financial integration. Therefore, quantity-based measures were used in this study. Following the study of Friedrich, Schnabel and Zettelmeyer (2010), this paper used four indicators of *de facto* financial globalization. First, we use the standard measure of gross financial globalization, defined as the sum of total foreign assets and total foreign liabilities in percent of GDP (FAI) and sourced from International Financial Statistics (IFF), 2016. Gross measures of financial integration have the advantage that they also capture risk-sharing benefits of financial globalization. Then we consider various measures taking into account only foreign liabilities (capturing only the financing side of financial globalization), distinguishing different types of foreign liabilities: foreign direct investment (FDI) and external debt (EXD), both expressed in percent of GDP and sourced from United Nations Conference on Trade and Development (UNCTAD),

[1] The twenty-one countries included in the study were randomly selected from the list of countries in SSA.

2016. Further, we consider net foreign assets (defined as the difference between foreign assets and foreign liabilities) in percent of GDP (NFA) and sourced from World Development Indicators (WDI), 2016, which serves as a valuation-change adjusted equivalent to the current account.

This paper used two institutional quality indexes (government effectiveness (GEF) and rule of law (ROL) sourced from World Governance Indicators (WGI), 2016) constructed by Kaufmann *et al*. (2004). The criterion that is used in choosing them is a possible linkage between such indexes of the quality of a government and the capital flows into a country. Vector of control variables are trade openness (TRO) sourced from UNCTAD, 2016; domestic credit provided by banking sector (DCB), domestic credit to private sector (DCP), inflation (INF) and interest rate (INT) sourced from WDI, 2016. Real GDP sourced from WDI, 2016 and expressed in log form.

To evaluate the impacts of financial globalisation on economic growth, the study considers a panel of i countries, observed over t periods of time. This paper adopts endogenous growth model in line with Schularick and Steger (2006). Conventionally, the popular Cobb Douglas production function can be written as

$$Y_{it} = A_{it}F(K_{it}, L_{it}) = K_{it}^{\alpha}(AL_{it})^{1-\alpha} \quad 1$$

where □, 1-□ > 0

Y represents output production by combining capital K and efficiency of labour AL and □, 1-□ are the parameters representing the output elasticity of each input. By simple modification and abstracting from the argument of endogenous theory proponent that the labour and capital are embodiment of several other inputs that are also directly responsible to changes in output growth even when the traditional inputs are unchanged. Thus, one of such possible input is the institutional quality committed into production process. In line with this argument, institutional quality can be included in Eq (1) as thus:

$$Y_{it} = K_{it}^{\alpha} IQ_{it}^{\gamma}(AL_{it})^{1-\alpha-\gamma} \quad 2$$

where □, $\gamma \geq 0$

IQ_{it} is the indicator of institutional quality and it is an increasing function designed to capture the three ways by which the model enhances the nature of relationship between financial globalization and output through quality of institutions. We study the model with the variables expressed in terms of effective units of labour, and define y = Y / AL, k = K / AL and iq = IQ / AL. Using these variables, the production function is written as thus:

$$y = k_{it}^{\alpha} iq_{it}^{\gamma} \quad 3$$

The model represented by Eq (3) can be rewritten in log linear form as:

$$y_{it} = \beta_1 + \beta_2 k_{it} + \beta_3 iq_{it} \quad 4$$

In order to incorporate other macroeconomic variables that might also impact on the growth of output, we introduce x in Eq (4). Therefore, Eq (4) can be re-written as follows:

$$y_{it} = \beta_1 + \beta_2 k_{it} + \beta_3 iq_{it} + \beta_4 x_{it} \quad 5$$

where x equals other macroeconomic variables.

Apart from the financial globalization and institutional quality, evidences from previous studies have shown that many other factors are significant determinant of real growth.[1] This paper incorporated other macroeconomic variables in the above model we have

$$y_{it} = \beta_1 + \beta_2 k_{it} + \beta_3 iq_{it} + \beta_4 to_{it} + \beta_5 fd_{it} + \beta_6 if_{it} + \beta_7 in_{it} + \varepsilon_{it} \quad 6$$

Where $\mathbf{y_{it}}$ equals real gross domestic product; $\mathbf{k_{it}}$ equals financial globalisation indicators; $\mathbf{iq_{it}}$ indicates institutional quality indicators; $\mathbf{to_{it}}$ equals trade openness; $\mathbf{fd_{it}}$ equals financial development indicators; $\mathbf{if_{it}}$ equals inflation rate; and $\mathbf{in_{it}}$ equals interest rate. ε_{it} equals error correction terms. to_{it}, fd_{it}, if_{it}, in_{it} are vector of control variables.

In order to capture the role of institutional quality in financial globalization – growth nexus, we interact institutional quality with financial globalization. The rationale behind the interaction term is that institutional quality affects the efficiency of financial globalization and hence economic growth. Therefore, Eq (6) can be written as thus:

$$y_{it} = \beta_1 + \beta_2 k_{it} + \beta_3 (k_{it} * iq_{it}) + \beta_4 iq_{it} + \beta_5 Z_{it} + \varepsilon_{it} \quad 7$$

where Z_{it} is a matrix of control variables.

The responsiveness of steady state level of economic growth to financial globalization can be determined by differentiating Eq (7) with respect to financial globalization. This will give marginal effect of financial globalization on economic growth as thus:

$$\frac{\partial y_{it}}{\partial k_{it}} = \beta_2 + \beta_3 * iq_{it} \quad 8$$

[1] See (Eichengreen et al., 2009; Quinn & Toyoda, 2008; Schularick & Steger, 2006; Luca & Spatafora, 2012).

From Eq (8), we calculate the threshold level of institutional quality i.e. β_2/β_3 (Greene, 2008; Bailliu, 2000).

The objective of this paper is captured through the use of the Generalized Method of Moments (GMM) estimators for estimation suggested for the dynamics of adjustment that were developed by Arellano and Bond (1991), and Blundell and Bond (1998). The choice of this technique is to correct for endogeneity problem in the model. The estimated models are specified as thus

$$y_{it} - y_{i,t-1} = \delta(y_{i,t-1} - y_{i,t-2}) + \alpha(fg_{i,t-1} - fg_{i,t-2}) + \beta(iq_{i,t-1} - iq_{i,t-2})$$

$$+ \beta^{'}(X_t - X_{i,t-1}) + (\varepsilon_t - \varepsilon_{i,t-1}) \quad 9$$

The objective of this paper is captured by examining the interaction of institutional quality on the relationship between financial globalization and economic growth in SSA and Eq (9) can be re-written as thus:

$$y_{it} - y_{i,t-1} = \delta(y_{i,t-1} - y_{i,t-2}) + \alpha(fg_{i,t-1} - fg_{i,t-2}) + \gamma(fg_{i,t-1} - fg_{i,t-2})*(iq_{i,t-1} - iq_{i,t-2})$$

$$+ \vartheta(iq_{i,t-1} - iq_{i,t-2}) + \beta^{'}(X_t - X_{i,t-1}) + (\varepsilon_t - \varepsilon_{i,t-1}) \quad 10$$

4. Empirical Results

This section captures the econometric technique of analysis and shows the role that institutional quality plays in the nature of relationship between financial globalization and economic growth in SSA. This is the gap that this paper covers in the existing literature. Table i below showed the descriptive statistics summary of the variable under study.

Table I. Descriptive Statistics Results

	DCB	DCP	EXD	FDI	GDP	GEF	INF	INT	NFA	ROL	TRO
Mean	30.08	19.63	0.03	2.91	3.36	-0.24	11.64	6.12	12.27	-0.25	32.50
Median	21.13	13.04	0.02	1.24	3.58	0.00	8.10	5.74	1.64	0.00	26.45
Maximum	195.3	161.9	0.64	46.48	33.62	0.67	183.3	57.4	1197.3	0.85	103.9
Minimum	-72.9	0.00	-1.33	-28.6	-19.0	-1.71	-100.0	-51.6	-113.6	-1.72	2.62
Std. Dev.	25.54	23.66	0.08	5.59	5.28	0.48	20.01	11.59	16.20	0.52	20.39
Skewness	1.65	3.50	-6.38	3.27	0.10	-1.49	3.31	-0.50	0.14	-0.97	0.85
Kurtosis	8.06	16.73	134.1	21.84	7.06	4.06	27.32	6.67	25.19	3.26	3.13
Jarque-Bera	993.0	6446.4	4709.4	1079.3	450.2	273.5	173.1	394.7	136.2	105.5	79.8
Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	655	655	655	655	655	655	655	655	655	655	655
Cross-section	21	21	21	21	21	21	21	21	21	21	21

Source: Ratios computed by the author

Table i showed that all the series display a high level of consistency as their mean and median values fall within the maximum and minimum values of the series. Also, the standard deviation of the data series is very low which implies that the deviation of actual data from its mean value is very small. For a further test of normality, we can test whether the mean and median of the distribution are nearly equal, whether the skewness is approximately zero, and whether the kurtosis is close to 3. A more formal test of normality is the one given by the Jarque-Bera (JB) statistic. The Jarque-Bera statistic follows a chi-square distribution with 2 degree of freedom, all the data series used in the study rejects the assumption of normal distribution at 1% due to the high value of JB and a small p-value.

In order to capture the objective of this paper, tables ii and iii below are presented.

Table II. Dynamic Panel GMM Results [Foreign Assets plus Liabilities (FAL) and External Debt (EXD)]

Variable	1	2	3	4	**Variable**	1	2	3	4
GDP_{t-1}	0.143*** (3.063)	0.180*** (3.499)	0.099 (1.109)	0.210*** (2.761)	GDP_{t-1}	0.144*** (2.351)	0.144* (1.924)	0.234*** (3.762)	0.219*** (3.633)
FAL	-0.166** (-1.982)	-0.062* (-1.769)	-0.070*** (-3.598)	-0.143*** (-3.405)	EXD	1.206* (1.683)	0.853* (1.659)	2.454* (1.662)	1.442* (1.703)
FAL*GEF	0.206** (2.453)	0.151* (1.855)	----	----	EXD*GEF	2.105*** (2.827)	2.221** (2.298)	---	---
FAL*ROL	----	----	-0.096** (-1.958)	-0.391* (-1.946)	EXD*ROL	---	---	3.048** (2.343)	3.310** (1.981)
GEF	-0.726* (-1.906)	-0.205 (-1.598)	----	----	GEF	-0.414* (1.873)	-0.843 (-1.865)	---	---
ROL	----	----	-0.747* (-1.862)	-0.735* (-1.921)	ROL	---	---	-0.789* (-1.651)	-1.044** (-2.223)
DCP	----	-0.174 (-1.623)	----	-0.018 (-1.644)	DCP	---	-0.261*** (-3.393)	---	-0.277*** (-3.544)
DCB	-0.262*** (-3.741)	----	-0.197* (-1.846)	----	DCB	-0.217*** (-4.191)	---	-0.199*** (-4.554)	---
TRO	0.305*** (5.231)	0.333*** (5.462)	0.314*** (5.595)	0.323*** (5.611)	TRO	0.444*** (4.044)	0.252*** (2.588)	0.420*** (5.152)	0.262*** (4.349)
INF	-0.004 (-0.356)	-0.008 (-0.531)	-0.006 (-0.384)	-0.008 (-0.556)	INF	-0.012 (-0.775)	-0.009 (-0.588)	0.013 (0.883)	0.007 (0.535)
INT	0.076*** (5.964)	0.110*** (7.783)	0.034* (1.911)	0.080*** (4.053)	INT	0.030*** (3.227)	0.044*** (5.731)	0.038*** (5.987)	0.049*** (7.787)
C	-0.444** (-2.187)	-0.067 (-0.329)	-0.308 (-1.353)	-0.175 (-0.814)	C	-0.307** (-2.028)	-0.052 (-0.319)	-0.411** (-2.339)	-0.095 (-0.527)
Instrument Rank	15	15	15	15	Instrument Rank	15	15	15	15
J-statistics	19**	18**	18**	17**	J-statistics	16**	18**	17**	16**
Obs.	588	588	588	588	Obs.	588	588	588	588

, **, * indicate 10%, 5% and 1% level of significance. Figures in parenthesis are t-statistic. Obs. indicates observation*

Table III. Dynamic Panel GMM Results [FDI and Net Foreign Asset (NFA)]

Variable	1	2	3	4	Variable	1	2	3	4
GDP_{t-1}	0.268*** (5.375)	0.280*** (5.227)	0.264*** (5.549)	0.325*** (5.469)	GDP_{t-1}	0.430*** (3.033)	0.481*** (3.312)	0.694*** (5.817)	0.698*** (5.794)
FDI	-0.261*** (-4.760)	-0.242*** (-3.519)	-0.086*** (-5.151)	-0.174** (-2.551)	NFA	-0.086** (-2.509)	-0.096*** (-3.122)	-0.132*** (-4.240)	-0.134*** (-4.574)
FDI*GEF	0. 372** (1.975)	0.532*** (3.158)	---	---	NFA*GEF	0.283** (2.516)	0.258** (2.303)	---	---
FDI*ROL	---	---	-0.382* (-1.677)	-0.275* (-1.657)	NFA*ROL	---	---	-0.305** (-1.970)	-0.674** (-1.982)
GEF	-0.534** (-2.245)	-0.748*** (-2.719)	---	---	GEF	-1.110*** (-3.109)	-1.187*** (-3.245)	---	---
ROL	---	---	-0.524* (-1.666)	-1.170** (-2.544)	ROL	---	---	-1.536* (-1.684)	-1.648* (-1.732)
DCP	---	-0.253*** (-5.199)	---	-0.357*** (-5.405)	DCP	---	0.020 (0.860)	---	-0.064*** (-2.779)
DCB	-0.117*** (-6.216)	---	-0.156*** (-7.945)	---	DCB	0.028 (1.284)	---	-0.008 (-0.467)	---
TRO	0.128* (1.859)	0.139** (2.047)	0.191*** (3.084)	0.233*** (3.246)	TRO	-0.084 (-0.720)	-0.068 (-0.596)	0.068 (0.872)	0.083 (1.023)
INF	0.021 (1.465)	0.014 (0.976)	0.018 (1.255)	0.001 (0.118)	INF	-0.002 (-0.113)	-0.0008 (-0.044)	-0.001 (-0.108)	-0.004 (-0.347)
INT	0.039*** (5.973)	0.045*** (6.034)	0.043*** (6.535)	0.052*** (6.744)	INT	0.081*** (5.382)	0.084*** (6.021)	0.093*** (7.928)	0.094*** (8.743)
C	-0.028 (-0.213)	-0.089 (-0.574)	0.061 (0.512)	0.048 (0.295)	C	-0.027 (-0.164)	-0.038 (-0.232)	0.036 (0.208)	0.046 (0.284)
Instrument Rank	15	15	15	15	Instrument Rank	15	15	15	15
J-statistics	16**	18**	17**	18**	J-statistics	16**	17**	14**	16**
Obs.	588	588	588	588	Obs.	588	588	588	588

, **, * indicate 10%, 5% and 1% level of significance. Figures in parenthesis are t-statistic. Obs. indicates observation*

We test for the validity of the instrument used and examine the value of the J-statistic and instrument rank of the GMM estimate. From tables ii and iii, the instrument rank (15) is greater than the number of estimated coefficients (07), we may use it to construct the Sargan test of over-identifying restrictions. Constructing the Sargan test of over-identifying restrictions, it was also confirmed that the instruments used in the technique of analysis are valid.

In tables ii and iii, we estimated four models in order to avoid serial correlation in the model. From table ii above, financial globalization (foreign assets plus foreign liabilities) has a negative and significant effect on economic growth and institutional quality (government effectiveness) mitigates the negative effect of financial globalization on economic growth in SSA. Based on the estimated coefficients for the financial globalization variable and the interaction term, it is found that 0.80 was the threshold value that institutional quality would attain before it could mitigate the negative effect of financial globalization on economic growth in SSA. This implies that government effectiveness lessens the negative effect of financial globalization on economic growth in SSA.

Furthermore, from table ii, financial globalization has a negative and significant effect on economic growth and institutional quality (rule of law) aggravates the negative effect of financial globalization on economic growth in SSA. It is found that 0.72 was the threshold value that institutional quality would attain before it could

aggravate the negative effect of financial globalization on economic growth in SSA. This indicates that rule of law in the region is not well entrenched and hinder the economies to derive the benefits of financial globalization.

From table ii above, financial globalization (external debt) has a positive and significant impact on economic growth and institutional quality favourably influence the positive relationship between financial globalization and economic growth in SSA. It is found that 0.57 was the threshold value that institutional quality would attain before it could favourably affect the positive impact of financial globalization on economic growth in SSA. This implies that institutional quality enhances and contributes positively on financial globalization – growth nexus in SSA.

Moreover, the results in table ii showed that financial globalization (external debt) has a positive and significant impact on economic growth and institutional quality (rule of law) favourably affect the positive relationship between financial globalization and economic growth in SSA. It is found that 0.81 was the threshold value that institutional quality would attain before it could favourably affect the positive impact of financial globalization on economic growth in SSA. This implies that financial globalization (external debt) boost economic activities in SSA which further accelerated by efficient rule of law.

The findings in table iii above showed that financial globalization (i.e. FDI) has a negative and significant impact on economic growth, and institutional quality mitigates the negative and adverse effect of financial globalization on economic growth in SSA. It is found that 0.70 was the threshold value that institutional quality would attain before it could mitigate the negative impact of financial globalization on economic growth in SSA. This implies that institutional quality lessens the negative effect of financial globalization (i.e. FDI) on economic activities in SSA.

In addition, the results in table iii showed that financial globalization (i.e. FDI) has a negative and significant impact on economic growth, and institutional quality aggravates the negative effect of financial globalization – growth nexus in SSA. It is found that 0.23 was the threshold value that institutional quality would attain before it could aggravate the negative impact of financial globalization on economic growth in SSA. This implies that SSA lack efficient rule of law that can address security threat on foreign investors' property which in turn worsen the negative effect of FDI on economic growth in the region.

The results in table iii above showed that net foreign asset (financial globalization) has a negative and significant impact on economic growth and the institutional quality (government effectiveness) mitigates the negative effect of financial globalization on economic growth in SSA. It is found that 0.30 was the threshold value that institutional quality would attain before it could mitigate the negative impact of financial globalization on economic growth in SSA. This implies that net foreign assets crowd out investment activities in SSA but government policies

deteriorate the negative effects by putting in place appropriate mechanism that drive the benefits of financial globalization.

Furthermore, the results in table iii showed that financial globalization (net foreign asset) has a negative and significant impact on economic growth and institutional quality (rule of law) aggravates the negative effect of financial globalization on economic growth in SSA. It is found that 0.43 was the threshold value that institutional quality would attain before it could aggravate the negative impact of financial globalization on economic growth in SSA. These results can be explained by the fact that the spill-over effect of the value of the assets that SSA owned abroad could not be counteracted by the value of the domestic assets owned by foreigners in the region and this spill-over effect worsened by weak rule of law, which in turn impede economic activities of the region.

In tables ii and iii above, the results showed that institutional quality (government effectiveness) has a negative and significant impact on economic growth in SSA. The results revealed that government effectiveness in SSA is associated with a lower economic growth in the region. This implies that the government participation in the economy is ineffective and hence inimical to economic growth. Moreover, rule of law (i.e. institutional quality) has a negative and significant impact on economic growth in SSA. The result showed that rule of law is not well entrenched in the region; and hence associated with a lower economic growth. This also indicates that the judicial system in the region is weak and property rights might not receive adequate protection; thus, local and international investors are discouraged from investing heavily in the economies. This explains why the economy has not witnessed significant growth.

On the other hand, table ii and iii revealed the financial globalization – growth nexus. The results showed that financial globalization (foreign assets plus foreign liability) has a negative and significant impact on economic growth in SSA. This implies that SSA did not derive the benefits of financial globalization due to weak institutional quality. It was also evidenced from the table that financial globalization (i.e. external debt) has a positive and significant impact on economic growth in SSA. This finding can be explained by the fact that high debt flows in SSA often go along with credit booms and other types of vulnerabilities, which may make a country more prone to adverse shocks. This result was in line with the existing literature such as Kose *et al* (2009) and Friedrich, Schanabel and Zettelmeyer (2010).

To further examine the impact of financial globalization on economic growth in SSA, the results showed that financial globalization (i.e. foreign direct investment) has a negative and significant impact on economic growth in SSA. This contradicts what obtained in developed countries where FDI positively impacted on economic growth. This could be as a result of repatriated capital flight from SSA economies which would hamper economic growth in the region. These results were in line with

the findings of Frankel and Wei (2005). They reported that the share of FDI in a country's total capital inflow is negatively associated with the probability of a currency crisis which in turn impede economic growth.

Also, the findings showed that financial globalization (i.e. net foreign asset) has a negative and significant impact on economic growth in SSA. These results can be explained by the fact that the spill-over effect of the value of the assets that SSA owned abroad could not be counteracted by the value of the domestic assets owned by foreigners in the region which in turn impede economic activities of the region. These findings were consistent with the results of Kose *et al* (2009) and UNCTAD (2012), who argued that less developed countries often did not experience massive inflow surges but did experience massive outflows and affect the growth rate of the economies negatively.

The results in tables ii and iii showed that, financial development has a negative and significant impact on economic growth in SSA. This indicates that financial institutions in SSA is still underdeveloped and discourage economic prosperity in the region. Also, trade openness has a positive and significant effect on economic growth in SSA. It could be inferred from these results that openness of SSA to international trade would help a lot in improving economic activities in the region. Interest rate has significant and positive impact on economic growth in SSA. This implies that an economy with high interest rate will attract capital inflows because every investor or lender is looking for economy where returns on their funds are encouraging which in turn accumulate more capitals to develop the region.

5. Concluding Remark

The study aimed at establishing the role that institutional quality plays in the effect of financial globalization on economic growth in SSA. Results of the dynamic panel GMM show that the institutional quality (measured by government effectiveness) mitigates the negative effect of financial globalization on economic growth in SSA. On the other hand, institutional quality (measured by rule of law) plays an adverse role in the negative effect of financial globalization on economic growth in SSA. Furthermore, the results reveal that institutional quality had a negative and significant impact on economic growth in SSA.

One of the implications of this study is that SSA derived the benefits of financial globalization through government effectiveness, and thereafter improves economic activities of the region. It is important to further enhance effectiveness of government participation in the financial globalization – growth nexus in SSA. Therefore, governments in this region should put in place appropriate mechanism that will stimulate government effectiveness in the use of financial globalization in promoting economic growth.

The paper also indicates that SSA's rule of law is not well entrenched and capital-rich economies repatriate capitals from the region which in turn hinder economic growth. This serves as wrong indication to foreign investors to invest heavily in the economies because they afraid if their properties are secured. Therefore, governments in the region should ensure efficient rule of law that will assist the economies to derive the benefits of financial globalization.

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