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The impact of capital account liberalization on economic growth

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Abstract
The study analyzes the influence of capital account deregulation on economic growth in five Sub-Saharan African (SSA) Countries from 1984 to 2019. In order to remedy the problem of heteroscedasticity and serial correlation, the study utilizes Pooled Mean Group technique (PMG). Evidence indicates that capital account deregulation and credit to private sector by banks (CPSB) retard economic growth. Furthermore, evidence suggests that capital stock, foreign direct investment (FDI) and labour force participation stimulate economic growth. Therefore, the study recommends that countries should implement policies geared toward supporting and enhancing the performance of capital account deregulation. Hence, to benefit from the numerous advantages of capital account deregulation, the study suggests that member countries must provide a conducive environment for businesses to succeed.

Keywords: Capital account liberalization, economic growth, financial deregulation.

1. Introduction

The free flow of capital in an economy as advised by capital account liberalization suggests the highest return on savings, lower rates in borrowing and country specific risk diversification. Through the adoption of international norms, exposure to global competition increases efficiency in the domestic financial system. These benefits in the scope of the financial system and efficiency can boosts availability of savings both by promoting capital inflows and eliciting higher domestically generated savings. This can help the economy benefit from economies of scale and scope (Klein & Olivei, 2008 and Prasad et al. 2003). The proponents of capital account liberalization like Henry (2006), Dooley (1996) and Quinn (2008) believe that international capital flows can lead to lower cost of capital, stimulate investment in projects with higher returns, and allow risk diversification and integration into the global financial system. Liberalization of the capital account is a deliberate government decision to shift from a closed capital account economy (where free flow of capital in and out of an economy is restricted) to an open capital account economy where free movement of capital in and out of a country is allowed (Henry, 2006).

Theoretically, liberalization of capital account has clear benefits in the way of enhancing more efficient international allocation of resources, improving economic growth in emerging economies through different channels. It allows countries to reduce consumption volatility in giving chances for income-risk sharing. According to the idea of "allocative efficiency," which is based on Solow's (1956) neoclassical growth model, easing constraints on capital flow encourages effective capital allocation in the global financial system. It helps stimulate financial development and provides opportunities for diversification of risk (Fischer, 1998; Henry, 2006; Summers, 2000).

Against an unfavorable situation of rapidly deteriorating financial and economic conditions, the Sub-Saharan African (SSA) countries embarked on financial sector reforms. This entails gradual opening and deregulation of the economy for foreign investment. The economies have privatized government-owned banks, eliminated credit control, deregulated their interest and exchange rates, and deregulated capital account in an attempt to achieve growth through a market-based system. The SSA financial system is the smallest across the globe in terms of both economic and absolute terms. The financial institutions are little related to low productivity and inadequate skills. This stops them from taking advantage of economies of scale and prevents them from undertaking substantial investment. Capital account openness in SSA economies has improved the inflow of capital into the region. However, the outflow of capital from SSA is higher than the inflow. The inflow of capital into a liberalized economy with scarce resources and a higher return rate is the main argument for capital account openness. After two to three decades of financial liberalization in SSA countries, the impact appears very little. The liberalization policies appear to have failed to mobilize domestic savings, improve financial deepening, and attract domestic and foreign investment.

Figure 1 illustrates that the portfolio investment net (current US dollar) in Nigeria has been discouraging with a negative value from the year 2000 to 2004, a positive point was achieved in the year 2005, but it tumbled in the year 2006 to 2007. It rose from 2008 to 2009, and from 2010 to 2018, Nigeria experienced declining portfolio investment. The trend of GDP (annual growth) indicates an average growth rate from 2000 to 2014 before falling into recession in the year 2015 to 2016 and recovered in 2017. Furthermore, the trend of FDI (percentage of GDP) also indicates a positive pattern from 2000 to 2014 and tumbling to its lowest in 2015 to 2016. The case of South Africa is better, with the country experiencing two periods of positive portfolio investment trend, between the years 2000 to 2002 and 2008 to 2009. GDP trends reveal a positive trend throughout the periods except for 2009, when the economy went into recession. FDI has maintained a positive trend but at a lower level throughout the years. The case in Botswana indicates that portfolio investment maintains a positive trend in most periods, with a negative trend only in the years 2008 and 2018. GDP also reveal a similar trend with portfolio investment in Botswana, with only two negative trends in 2010 and 2016. The FDI maintained a positive trend throughout the period. As observed in Ghana, the portfolio investment revealed a positive trend from the year 2000 to 2008; it tumbled in 2009 and remained low with a negative trend to 2018. GDP indicates a positive trend through the periods with no recession. Furthermore, FDI inflow shows a positive and encouraging trend throughout the periods. In Kenya, portfolio investment indicates a positive trend from 2000 to 2011, and it fell from 2012 to 2014. It rose between 2015 to 2018. While, GDP also maintained a positive trend through the years. Furthermore, FDI also maintained a positive trend through the years. No considerable and sustained growth is observed in the countries. Although there is no considerable increase, and the GDP growth trends are unstable. The paper explores how the deregulation of capital account influences growth in the five sample SSA nations. There are few studies that have looked at how capital account deregulation has affected growth in the five sample nations. The study used the DEF, MG, and PMG three-panel ARDL approaches.

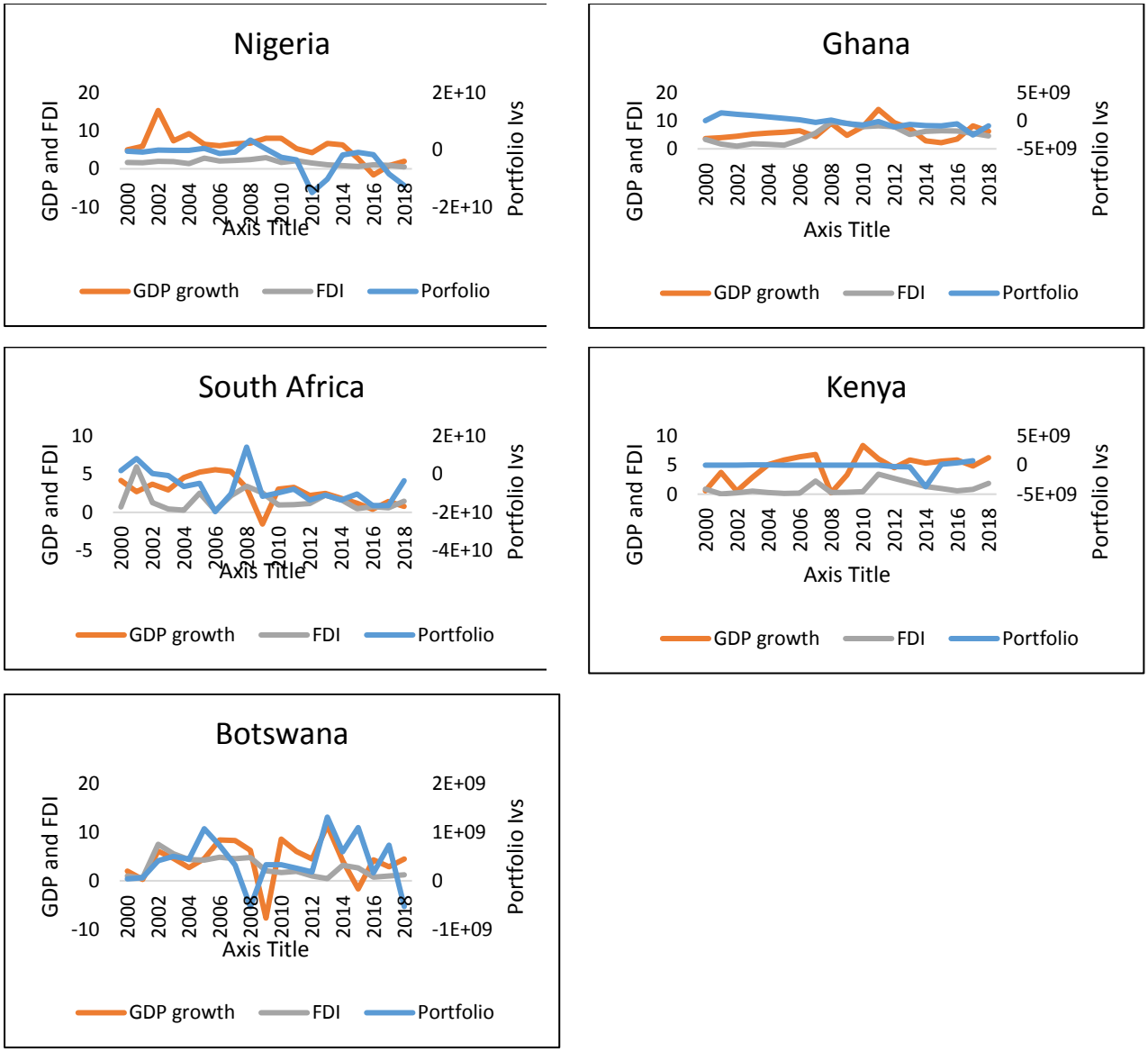

Figure 1 *Gross Domestic Product, Foreign Direct Investment and Portfolio Investment*
***Source**: World Bank Development Indicators, 2019*

2. Literature Review

Theoretical Review: According to Schumpeter (1911), financial intermediaries' services in project evaluation, manager oversight, transaction simplification, savings mobilization, and risk management are crucial for economic growth and technical advancement. Furthermore, it is said that the actions of an inventive entrepreneur speed up economic growth and that an advanced financial system has effects that stimulate productivity and growth. According to Goldsmith (1969), increasing the effectiveness and volume of financial intermediation speeds up growth. As a result, efficient banks and stock markets provide cutting-edge goods and services that quicken growth through channels for savings and investments. According to Galindo et al. (2007), financial system improvement brought about by financial system liberalization results in better capital allocation to viable investments.

Empirical Review:- Lopes and de Jesus (2015) utilized the OLS, fixed-effect and GMM techniques in analyzing the influence of CAL on growth for 77 economies spanning from 1990 to 2010. According to research, capital account deregulation greatly speeds up growth in highly democratic economies while slowing it down in less democratic ones. Similarly, in exploring the effect of CAL on foreign capital inflow for 13 SSA economies from 1996 to 2013, Mughogho and Alagidede (2019) utilized GMM and fixed effects estimation technique. The study also examined the threshold of institutional quality. Evidence indicates that CAL accelerates capital inflow to SSA countries and that sound institutional quality helps countries benefit more from capital openness. Quinn and Toyoda (2008) utilized the system GMM and OLS technique to analyse how growth was affected by capital account deregulation, employing the de-jure measure of capital openness in 94 nations from 1995 to 2004. Evidence indicates that capital account deregulation accelerates growth in emerging and developed economies. It further affirmed the independent influence of equity market liberalization on growth. In addition, Taneja and Ansari (2016) explored the macroeconomic influence of capital account deregulation on India's growth from 1993 to 2013. Using time series data and Granger causality, evidence indicates a link between capital openness and growth. It further recommends that CAL must come first before trade openness and in a financial system that is more developed. Similarly, Saidi et al. (2016) utilized FMOLS and DOLS to investigate the impact of CAL and financial development on growth for 79 developing and developed nations from 1983 to 2013. Evidence reveals that capital account deregulation promotes economic growth in advanced nations but sluggish in emerging and developing economies.

Similarly, while analyzing the influence of capital account openness on domestic investment in 17 EME countries, Ur Rehman et al. (2019) utilized fixed-effects and GMM technique, using a de facto and de jure measures of CAL. Findings indicate that CAL accelerate domestic investment, and the study recommends the provision of a competitive environment. Also, Idris et al. (2018) also evaluated the influence of CAL on growth for OECD economies, using the GMM technique and a panel data spanning from 1977 to 2011. Results reveal that openness enhances economic growth in OECD and developing nations. Similar to this, Trabelsi and Cherif (2017) investigated how financial integration affects financial deepening in 90 nations classed as developing and developed economies throughout the period of 1975 to 2009. Utilizing the GMM technique and a panel data, results indicate that financial integration does not promote financial development in developing economies

unless in an economy with sound institutional environment. Similarly, Gaies and Nabi (2019) analyzed the influence of openness in the financial on growth in developing economies for 67 nations categorised into low and middle-income economies spanning over 1972 to 2011, utilizing the random and fixed-effects, GMM estimation techniques. Findings reveal both the FDI and debt financing accelerated investment through the credit channel, and it further recommends that mixed financing in developing economies are more profitable. Additionally, using the GMM estimator technique to examine how financial integration affects GDP in 72 developing countries over the period of 1972 to 2011, Gaies et al. (2020) showed that financial globalization has boosted growth through FDI and portfolio investment. Similarly, Gaies et al. (2019) examined the impact of financial integration on growth. They investigated the interaction effect of financial instability using panel data covering 72 emerging economies from 1972 to 2011 and the GMM estimate technique. Results show that while investment and financial globalization enhance growth, the interplay of indebtedness, globalization and instability retards growth. The bad effect of financial instability is increased by indebtedness globalization. On the other hand, financial integration lessens the negative impact of instability on growth whereas investment globalization lessens the negative effects of financial instability on growth.

3. Methodology

The Solow growth model, the framework of Law and Azman-Saini (2013), and Klein (2005) were used in the study to assess the effects of capital account deregulation on growth with minimal change. We defined the model as:

$$logGDPper_{it} = \beta_0 + \beta_1 logK_{it} + \beta_2 L_{it} + \beta_3 FDI_{it} + \beta_4 KOAPEN_{it} + \beta_5 INFL_{it} + \beta_6 CPSB_{it} + \mu_{it} \quad (1)$$

Where FDI stands for foreign direct investment, INFL stands for inflation, CPSB stands for a bank loan to the private sector, logK for gross capital formation, KOAPEN is the capital account liberalization index, logGDPper stands for economic growth and L for labor force participation. In the equation, log stands for the natural log operator, t stands for the white noise error term, is the parameter, t stands for the period, and I stands for the nation I = 1... 5). While INFL is anticipated to slow economic growth, the preceding expectation, logK, logL, FDI, CPSB, KOAPEN, and CPSB are anticipated to accelerate economic growth.

Panel Unit Root Test: By allowing for the heterogeneity coefficient Yi,t-1 and also proposing an alternate testing method based on the average individual unit test, this paper used the Im et al. (2002) approach, which was built on the Dickey-Fuller system. The IPS offers various estimations for the I section, allowing for distinct setting of the parametric, lag, and residual variance values. The given model is:

$$\Delta Y_{it} = \alpha_i + \rho Y_{i,t-1} + \sum_{k=1}^{n} \phi_k \Delta Y_{i,t-k} + \delta_i t + \theta_t + \varepsilon_{it} \quad (2)$$

Where: Y stands for the variable under consideration (GDPper, K, L, FDI, CPSB, INFL, and KOAPEN), for which a stationarity test is necessary to establish whether a unit root exists. The IPS had been used by researchers like Bai and Ng (2004), Hadri (2000), and Chou and Suk-Yee Lee (2003).The mean of the t-statistic used in testing for unit roots in panel analysis and the Im, Pesaran, and Shin test t-statistic are given by:

$$t_{IPS} = \frac{\sqrt{N}\left(\bar{t} - \frac{1}{N}\sum_{i=1}^{N} E[t_{iT}|\rho_i = 0]\right)}{\sqrt{\frac{1}{N}\sum_{i=1}^{N} Var[t_{iT}|\rho_i = 0]}} \Rightarrow N(0,1) \qquad \bar{t} = \frac{1}{N}\sum_{i=1}^{N} t_{\rho_i} \tag{3}$$

The IPS test show that under specific assumptions, t_{pi} converge to statistic denoted as $t_{tT,}$ which assumes that it is iid and has finite variance and mean.

Estimation Technique: Recently, the dynamic panel model has mostly concentrated on models with large cross-sections and time-series (T) dimensions (N). These panels' asymptotic characteristics differ from the conventional big N and T assumptions, which have homogeneous slope parameters and are typically incorrect, inconsistent, and produce false findings. M. H. Pesaran, Shin, and Smith (1999) advanced the dynamic panel model with big N and T, whose slope values are considered to be diverse among groups, as a result of these characteristics' inappropriateness (M. H. Pesaran & Smith, 1995). The PMG assumes a combination of both averaging and pooling of the coefficients, in contrast to the MG estimator, which estimates the N-time-series regressions with an average coefficient. Thus, the intercept and slope parameters as well as the error correction variances may all vary between groups.

Given a dynamic panel *ARDL* of the form:

$$y_{it} = \sum_{j=1}^{p} \lambda_{ij} y_{i,t-j} + \sum_{j=0}^{q} \delta_{ij}^{'} X_{i,t-j} + \mu_i + \varepsilon_{it} \tag{4}$$

Such that: *i* (the number of groups) = 1, 2, 3, …, *N*; *t* = 1, 2, 3, …, *T*; X*it* is a *k* x 1 vector of the independent variables; δ*it* are *k* x 1 vector of the coefficients; λ*ij* are the scalars, and μ*i* is the group-specific effect. T is presumable to be large enough to improve model fitness for each of the distinct groups, and other fixed regressors such as time-trends may also be added. The fact that the cointegrated variables respond to any deviance from the convergence route is one of their traits. The preceding Equation has been re-parametered.

$$\Delta y_{it} = \phi_i (y_{i,t-1} - \theta_i^{'} X_{it}) + \sum_{j=1}^{p-1} \lambda_{ij}^{*} \Delta y_{i,t-1} + \sum_{j=0}^{q-1} \delta_{ij}^{'} * \Delta X_{i,t-j} + \mu_i + \varepsilon_{it}\ ; \tag{5}$$

where:

$$\phi_i = -(1 - \sum_{j=1}^{p} \lambda_{ij}),\ \theta_i = \sum_{j=0}^{q} \delta_{ij} / (1 - \sum_{k} \lambda_{ik}),\ \lambda_{ij}^{*} = -\sum_{m=j+1}^{p} \lambda_{im}$$
$$j = 1,2,..., p-1, and\ \delta_{ij}^{*} = -\sum_{m=j+1}^{q} \delta_{im}\ \ j = 1,2,..., q-1 \tag{6}$$

The error correction term (ECT) from the equations, I denote the rate of convergence to equilibrium. Therefore, if I is 0, there would be no indication of a reliable, long-term relationship. This suggests that the parameter must be significant and negative, signifying a return to equilibrium.

PMG Dynamic Panel Estimation: The best dynamic panel model for the data is chosen by Hausman (1978). The test is utilized in deciding the efficient, reliable and suitability estimator among PMG, MG, and DFE models (Pesaran, Shin & Smith, 1999; Blackburne III & Frank, 2007). Based on the mixed results obtained from the panel unit root test conducted and selection of the

appropriate method of estimation among the three dynamic models, the study presents the long-run as well as short-run PMG estimation model based on Equation (7) and Equation (8):

The estimation of the long-run coefficients using the PMG dynamic panel estimation technique is specified in Equation (7):

$$GDPPer_{i,t} = \lambda_0 + \lambda_1 GDPPer_{i,t-1} + \lambda_2 K_{i,t} + \lambda_3 L_{i,t} + \lambda_4 FDI_{i,t} + \lambda_5 KOAPEN_{i,t} + \lambda_6 INFL_{i,t} + \lambda_7 CPSB_{i,t} + \varepsilon_{i,t} \quad (7)$$

The estimation of the short-run coefficients using the PMG dynamic panel estimation technique is specified in Equation (8):

$$\Delta GDPPer_{i,t} = \beta_0 + \sum_{k=1}^{p} \beta_1 \Delta GDPPer_{i,t-k} + \sum_{k=0}^{q_1} \beta_2 \Delta K_{i,t-k} + \sum_{k=0}^{q_2} \beta_3 \Delta L_{i,t-k} + \sum_{k=0}^{q_3} \beta_4 \Delta FDI_{i,t-k} + \sum_{k=0}^{q_4} \beta_5 \Delta KOAPEN_{i,t-k} + \sum_{k=0}^{q_5} \beta_6 INFL_{i,t-k} + \sum_{k=0}^{q_6} \beta_7 CPSB_{i,t-k} + \nu_2 ECT_{i,t-1} + \varepsilon_{i,t} \quad (8)$$

The study estimates the impact of capital account deregulation on growth utilizing the pool mean group (PMG) approach, having observed mix order of integration, which means that the variables are integrated at both level and first difference.

4. Results and Discussion

Descriptive Statistics

The use of mean, standard deviation, minimum and minimum allows us to assess the statistical properties of the data using a descriptive summary. The standard deviation and mean of INFL, CPSB, and FDI are close and positive, as shown in Table 1, showing that the individual values deviate from their mean value. Low deviation and a negative mean value characterize KOAPEN. GDPper and L, on the other hand, have high deviations and positive means and standard deviations. The standard deviation shows how far each variable deviate from its mean value. Corruption is a variable with a low deviation and a positive mean value in terms of institutional quality, whereas bureaucratic quality has a higher deviation than corruption and a positive mean value, respectively, for the minimum and maximum values

Table 1: Descriptive Statistics

Variables	Mean	Maximum	Minimum	Std. Dev.	Observations
GDPper	2566.970	8258.642	220.0697	2294.535	145
INFL	13.08436	72.8355	-0.69203	11.614	145
K	2.09E+10	9.00E+10	-8.00E+09	2.66E+10	145
CPSB	26.4798	78.29414	3.65734	20.76692	144
L	62.80664	75.071	52.305	7.450202	145
KOAPEN	-0.421429	2	-2	1.297856	140
FDI	2.073401	9.517043	-6.89768	2.243034	145

Note: GDPper is GDP per capita, K is capital formation, L is labour force total, FDI is foreign direct investment, CPSB is credit to the private sector by banks, KOAPEN is capital account liberalization index, INFL is inflation.

Panel Unit Root Test

The stationarity test for the variables is used to check for the presence of unit roots. The paper used the LLC and IPS two distinct methodologies for level and initial difference both. We are unable to reject the null hypothesis because, as shown in Table 2, variables like FDI, INFL, KOAPEN based on IPS technique at one percent significant. While using the LLC approach, logGDP, logK, logL, and CPSB initially show stationarity differently. Furthermore, whereas logGDP and logL are both stationary at first different based on LLC, variables like logK, FDI, INFL, KOAPEN and CPSB all indicate stationarity at the level. Almost all of the factors are significant to one percent.

Table 2: Panel Unit Root Analysis

Variable	IPS Level Zt-bar	First Difference Zt-bar	Order of integration 0 or I	LLC Level Zt-bar	First Difference Zt-bar	Order of integration 0 or I
logGDPper	2.3203	-4.4483***	I(1)	0.4106	-4.4613***	I(1)
logK	1.1752	-6.7346***	I(1)	-1.3243*	-3.1536***	I(0)
logL	3.0477	-2.5670***	I(1)	1.0796	-2.4043***	I(1)
FDI	-2.6803***	-8.0193***	I(0)	-2.3216**	-6.8187***	I(0)
INFL	-2.3362***	-8.7500***	I(0)	-3.0971***	-8.0975***	I(0)
KOAPEN	-2.2197**	-6.8953***	I(0)	-2.8367***	-7.0152***	I(0)
CPSB	-0.7694	-5.7503***	I(1)	-1.6624**	-5.1826***	I(0)

Correlation Analysis

The series' dependent variable is the variable logGDPper. It is moderately and favorably correlated with the variables logK, CPSB, and KOAPEN. This suggests that there is a significant correlation between logGDPper and logK, CPSB, and KOAPEN. The dependent variable and FDI have a weak but favorable connection. The dependent variable and INFL have a moderately negative connection with each other. This indicates that there is a significant and inverse relationship between KOAPEN and INFL and GDP. The model's highest degree of correlation, 0.6, between logK and logL, is within the acceptable range for correlation (Thompson, Kim, Aloe, & Becker, 2017).

Table 3: Correlation Analysis

	logGDPper	**logK**	**logL**	**FDI**	**INFL**	**CPSB**	**KOAPEN**
logGDPper	1						
logK	0.3695	1					
logL	-0.3407	0.6754	1				
FDI	0.0709	-0.0952	-0.0671	1			
INFL	-0.547	-0.1558	0.1346	0.1026	1		
CPSB	0.5751	0.5573	0.1335	-0.1684	-0.4193	1	
KOAPEN	0.3048	-0.3627	-0.5324	0.0071	-0.3594	0.0608	1

Source Authors' computation

The adequacy of a model is ascertained utilizing various diagnostic checks, such as cross-sectional dependent test, multicollinearity test and Breusch-Pagan heteroskedasticity test. As depicted in Table 3, the results indicate that the model has no problem of multicollinearity with each of the individual variance factors (VIF) lower than five and the mean value also lower than 5. The CSD test outcome indicates that the model has no problem of a cross-sectional dependent with the result showing an insignificant value at 0.6035. Furthermore, the Breusch-Pagan of heteroskedasticity indicates that the model is free from the heteroskedasticity problem with an insignificant value at 0.8959. Hence, the model produces an unbiased and efficient finding for policymaking. The coefficient of the error-correction term reveals significant at 5 per cent and negative. This means that whenever the economy deviates from the equilibrium, the economy will converge back based on the adjustment speed of 25 per cent.

Table 4: Panel Coefficient Estimation

Variable	DFE	MG Model	**PMG Model**
DV=logGDPper	Long-run Coefficient		
logK	0.7278**	0.6484*	**0.3924****
logL	0.9821	0.1594	**2.4247*****
FDI	0.0254	-0.1527	**0.0762*****
KOAPEN	0.0487	-0.6585	**-0.1365*****
INFL	-0.0196**	-0.0188	**-0.0407*****
CPSB	-0.0392*	0.0213	**-0.0785*****
	Short-run Coefficient		
logK	-0.0740	-0.0664	**0.1897**
logL	-1.1119	2.9807	**-7.0223**
FDI	-0.0096	-0.0300	**-0.0360***
KOAPEN	0.0063	0.0395	**0.0309**
INFL	-0.0014	0.0057	**0.0054***
CPSB	0.0017	-0.0130	**-0.0022**
ECT	-0.2009***	-0.4122***	**-0.2564****
Hausman Test	*DFE/PMG 1.0000*	*MG/PMG 0.2298*	
Mean Value (VIF)	*2.33*		
Pesaran CD-Test	*0.6035*		
Breusch-Pagan	*0.8959*		

Having investigated and found the series to be integrated into mix order, the test for cointegration does not apply. Based on the Hausman test results, PMG is the efficient estimators for the model. The long-run estimation results on the influence of capital account deregulation on growth in the SSA region. As depicted in Table 4, the estimated coefficient of capital indicates a significant outcome at 5 percent level and positively related to growth. This means that capital enhances growth. These imply that a percent rise in capital results in a 0.39 percent rise in growth. The result is supported by Ghosh (2019), it runs contrary to studies by Owusu and Odhiambo (2015). The outcome of labour is positive and significant at 1 percent. This means that the labour force total stimulates growth in SSA countries. These imply that a percent rise in labour leads in 2.42 per cent increase in growth. The finding is supported by Yavari and Mohseni (2012), it runs contrary to Naveed and Mahmood (2017). Our estimation results for FDI reveal positive and significant at 1 percent; it means that FDI enhances growth. These imply that a unit rise in FDI results in a 7.6 percent rise in growth. The finding is similar to Ghosh (2019), Opoku et al. (2019), Owusu-Nantwi and Erickson (2019), Panagiotis (2015), and Yucel (2014). It runs in disagreement with studies by Adams and Opoku (2015), Sokhanvar (2019) and Agbloyor et al. (2014).

The outcome indicates that liberalizing capital account is negative and significant at 1 percent, and it means that liberalizing capital account hampered growth in the SSA region. This implies that an increase in KOAPEN results in 0.13 percent decrease in economic growth. The finding is supported by Law and Azman-Saini (2013), it runs contrary to Kose et al. (2008), Bekaert et al. (2005) and Lee (2016). The estimation results of inflation reveal significant at 1 percent and negatively associated with growth. This means inflation reduces growth in SSA countries. These imply that a unit rises in inflation results to a 4 percent decrease in growth. The outcome of CPSB reveals negative and significant at 1 percent. This means that a unit rise in CPSB leads to a 7 percent decrease in growth. These imply that the CPSB reduce growth in the SSA region. This finding is supported by Owusu and Odhiambo (2013). It runs contrary to Kose et al. (2008), who reported a positive impact of CPSB on growth. In the short run, the coefficients of capital, labour, KOAPEN and CPSB all reveal insignificant at all critical levels. The outcome of FDI reveals a negative and significant at 10 percent. It means that a unit rise in FDI leads to a 3 percent decrease in growth. Similarly, the coefficient of inflation indicates negative and significant at 10 per cent. This means that inflation enhances growth. These imply that a unit increase in inflation leads to a 3 percent decrease in growth.

5. Conclusion

Capital account liberalization is essential in achieving economic growth by eliminating all forms of restrictions on the free flow of portfolio investment. Capital account openness attracts foreign portfolio investors, thereby resulting in the highest return on savings, lower rates in borrowing and country-specific risk diversification. This subsequently leads to increase investment hence economic growth. The study examines the impact of capital account deregulation on economic growth. In an attempt to arrive at a robust result, the study used both Pooled Mean Group technique (PMG), Mean group (MG) and Dynamic Fixed Effects (DFE), which is robust to heteroskedasticity and serial correlation. The study drew three inferences. Firstly, capital account deregulation in the five SSA countries retard economic growth. Secondly, the estimate indicates that foreign direct investment, labour and capital stock stimulate growth. Stimulate economic

growth. Thirdly, credit to private by banks and inflation retard growth.

References

Adams, S., & Opoku, E. E. O. (2015). Foreign direct investment, regulations and growth in sub-Saharan Africa. *Economic Analysis and Policy, 47*, 48-56.

Agbloyor, E. K., Abor, J. Y., Adjasi, C. K. D., & Yawson, A. (2014). Private capital flows and economic growth in Africa: The role of domestic financial markets. *Journal of International Financial Markets, Institutions and Money, 30*, 137-152.

Bai, J., & Ng, S. (2004). A PANIC attack on unit roots and cointegration. *Econometrica, 72*(4), 1127-1177.

Bekaert, G., Harvey, C. R., & Lundblad, C. (2005). Does financial liberalization spur growth? *Journal of Financial economics, 77*(1), 3-55.

Chou, W. L., & Suk-Yee Lee, D. (2003). Cointegration analysis of audit pricing model: a panel unit root test approach. *Journal of Business Finance & Accounting, 30*(7-8), 1141-1164.

Dooley, M. P. (1996). A survey of literature on controls over international capital transactions. *Staff Papers, 43*(4), 639-687.

Fischer, S. (1998). Capital Account Liberalization and the Role of the IMF, in S. Fischer et al., eds., Should the IMF Pursue Capital-Account Convertibility? *Essays in international finance*(207).

Gaies, B., Goutte, S., & Guesmi, K. (2019). Does Financial Globalization Still Spur Growth In Emerging And Developing Countries? Considering Exchange Rate Volatility'S Effects.

Gaies, B., Goutte, S., & Guesmi, K. (2020). Does financial globalization still spur growth in emerging and developing countries? Considering exchange rates. *Research in International Business and Finance, 52*, 101113.

Gaies, B., & Nabi, M.-S. (2019). Financial Openness and Growth in Developing Countries. *Journal of Economic Integration, 34*(3), 426-464.

Galindo, A., Schiantarelli, F., & Weiss, A. (2007). Does financial liberalization improve the allocation of investment?: Micro-evidence from developing countries. *Journal of Development Economics, 83*(2), 562-587.

Ghosh, S. (2019). Foreign Direct Investment, Female Education, Capital Formation, and Economic Growth in Japan and South Korea. *International Economic Journal, 33*(3), 509-536.

Goldsmith, R. W. (1969). *Financial structure and development*. Retrieved from

Hadri, K. (2000). Testing for stationarity in heterogeneous panel data. *The Econometrics Journal, 3*(2), 148-161.

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, 1251-1271.

Henry, P. B. (2006). Capital account liberalization: Theory, evidence, and speculation. *Journal of economic Literature, 45*(4), 887-935.

Idris, J., Yusop, Z., Habibullah, M. S., & Chin, L. (2018). Openness and Economic Growth in Developing and OECD Countries. *International Journal of Economics & Management, 12*(2).

Im, K., Pesaran, M., & Shin, Y. (2002). *Testing for Unit Roots in Heterogenous Panels, revised version of the DAE≫*. Retrieved from

Im, K. S., Pesaran, M. H., & Shin, Y. (1997). Testing for Unit Roots in Heterogeneous Panels", Mimeo, Department of Applied Economics, University of Cambridge. In.

Klein, M. W. (2005). *Capital account liberalization, institutional quality and economic growth: theory and evidence*. Retrieved from

Kose, M. A., Prasad, E. S., & Terrones, M. E. (2008). Does openness to international financial flows contribute to productivity growth? *Available at SSRN 1167788*.

Law, S. H., & Azman-Saini, W. (2013). Capital account liberalization and economic performance in Malaysia. *The Singapore Economic Review, 58*(03), 1350022.

Lee, K.-K. (2016). Capital account liberalization and economic growth: the empirical relationship revisited. *The Ritsumeikan Economic Review, 64*(3), 247-262.

Lopes, T. H. C. R., & de Jesus, C. S. (2015). Financial liberalization and economic growth. *Journal of Economic Studies*.

Mughogho, T. E., & Alagidede, I. P. (2019). *Capital Account Liberalization and Capital Flows to Sub-Saharan Africa: A Panel Threshold Approach*. Retrieved from

Opoku, E. E. O., Ibrahim, M., & Sare, Y. A. (2019). Foreign Direct Investment, Sectoral Effects and Economic Growth in Africa. *International Economic Journal, 33*(3), 473-492.

Owusu-Nantwi, V., & Erickson, C. (2019). Foreign direct investment and economic growth in South America. *Journal of Economic Studies*.

Owusu, E., & Odhiambo, N. M. (2015). Financial sector reforms and economic growth in Ghana: A dynamic ARDL model. *Contemporary Economics, 9*(2), 181-192.

Owusu, E. L., & Odhiambo, N. M. (2013). Financial liberalization and economic growth in Ivory Coast. *Investment Management and Financial Innovations, 10*(4), 171-180.

Panagiotis, P. (2015). The impact of FDI on economic growth in Eurozone countries. *The journal of Economic Asymmetriess*(17), 7-8.

Pesaran, M., & Pesaran, B. (1997). Working with Microfit 4.0: An interactive approach. *Oxford: Oxford University Press. Pesaran, MH, Shin, Y., Smith, RJ (2001). Bounds testing approach to the analysis of level relationships. Journal of Applied Econometrics, 16*, 289-326.

Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the american statistical association, 94*(446), 621-634.

Pesaran, M. H., & Smith, R. (1995). Estimating long-run relationships from dynamic heterogeneous panels. *Journal of econometrics, 68*(1), 79-113.

Rehman, U., Atiq, M., Ur Rehman, H., & Bashir, F. (2019). Capital Account Liberalization and Domestic Investment: A Panel Data Analysis for Emerging Market Economies. *Pakistan Journal of Social Sciences (PJSS), 39*(3).

Saidi, H., Guesmi, N., & Rachdi, H. (2016). Capital account liberalization, financial development and economic growth in presence of structural breaks and cross-section dependence. *Economics Bulletin, 36*(4), 2225-2236.

Schumpeter, J. (1911). The theory of economic development. Harvard Economic Studies. Vol. XLVI. In: Cambridge, MA: Harvard University Press.

Sokhanvar, A. (2019). Does foreign direct investment accelerate tourism and economic growth within Europe? *Tourism Management Perspectives, 29*, 86-96.

Solow, R. M. (1956). A contribution to the theory of economic growth. *The quarterly journal of economics, 70*(1), 65-94.

Summers, L. H. (2000). International financial crises: causes, prevention, and cures. *American economic review, 90*(2), 1-16.

Taneja, D., & Ansari, N. (2016). Macroeconomic Effects of Capital Account Liberalisation in India: An Empirical Analysis. *The Indian Economic Journal, 64*(1-4), 23-42.

Thompson, C. G., Kim, R. S., Aloe, A. M., & Becker, B. J. (2017). Extracting the variance inflation factor and other multicollinearity diagnostics from typical regression results. *Basic and Applied Social Psychology, 39*(2), 81-90.

Trabelsi, M., & Cherif, M. (2017). Capital account liberalization and financial deepening: Does the private sector matter? *The Quarterly Review of Economics and Finance, 64*, 141-151.

Yavari, K., & Mohseni, R. (2012). Trade liberalization and economic growth: a case study of Iran. *Journal of Economic Policy Reform, 15*(1), 13-23.

Yucel, G. E. (2014). FDI and economic growth: The case of Baltic countries. *Research in World Economy, 5*(2), 115.