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HOMOGENEOUS AND HETEROGENEOUS EFFECT OF EXCHANGE RATE ON ECONOMIC GROWTH IN AFRICAN COUNTRIES

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Abstract

Exchange rate has always been a critical economic variable as its fluctuations influences other macroeconomic indices in an open economy. This study empirically explores the influence of exchange rate on economic growth in sub Saharan Africa. The study employed the pooled mean group estimation method which allows for long run homogeneity across cross sections as well as short run heterogeneity for 18 sub Saharan African countries within the years 1981 to 2015. Findings from the study discloses that in the long run, exchange rate has a significant positive influence on economic growth in sub Saharan Africa while in the short run, the effect of exchange rate on economic growth is broadly country specific. Recommendations are of the view that in the long run, currency devaluation (depreciation) should be adopted as a policy option in order to improve economic growth while in the short run, country specific policy should be implemented as exchange rate has varying effect on economic growth across the countries employed in the study.

Keywords: Exchange rate, Economic Growth, Pooled Mean Group, Africa

INTRODUCTION

It is well acknowledged in economic literature that exchange rate is an important economic variable as its appreciation or depreciation affects the performance of other macroeconomic variables in an economy (Hashim and Zarma, 1996). The exchange rate value can be used to access the economy wide performance of a country and this has made it an essential variable for policy making by monetary authorities. Governments seek the stability of the exchange rate as it offers economic agent the opportunity to plan ahead without the fear of varying costs and prices of goods and services (Central Bank of Nigeria (CBN), 2016). Also exchange rate variation can lead to economic distortion, thereby affecting internal and external sector balance. According to Mordi (2006), it has been established in literature that getting the exchange rate right or maintaining relative stability is critical for both internal and external balance, hence, economic growth in an economy. Failure to properly manage the exchange rate brings about distortions in consumption and production patterns. Excessive exchange rate variation creates problems of inflation, unemployment, low investment, uncertainty and risk for economic agents which are destabilizing effect to the macro economy (CBN, 2016).

There has been an increasing importance attached to exchange rate in many countries, some of which are globalisation and the resulting increased rate and volume of funds flows among nations, trade liberalisation which have been undertaken by developing countries since 1980s which resulted from the opening of their economies, economic integration, and internalisation of business amongst others (Ojo and Alege, 2014). According to Babatunde and Akinwande (2010), there is a wide spread contention that the volatility of exchange rate in developing nations is a major sources of economic instability. Aliyu (2011) had noted that currency appreciation results to increased imports and reduced exports while currency depreciation expands export as well as discouraging import. According to Kogid et al. (2012), a stable long term economic growth requires stable trade and foreign exchange market which is in order to ensure a stable exchange rate system and favourable terms of trade in addition to appropriate basic physical capital stock. Eregha (2017) notes that exchange rate not only facilitates growth but is also key in ensuring external balance and investment flows.

Though the choice of an exchange rate system is a function of the individual characteristics of an economy, Akpan and Atan (2011) had stated that there appears to be a consensus view on the fact that currency devaluation or depreciation could boost domestic production through stimulation of the net export component.

Most sub Saharan African countries liberalised their economies and the exchange rate resulting, from the introduction of the structural adjustment programmes in the 1980s which gave way for devaluation policy for the purpose of competitiveness of the export sector and the

correction of external imbalances. Empirical studies by Odusola and Akinlo (2001), Berument and Pasaogullari (2003), El-Ramly and Abdel-Haleim (2008) have shown that currency devaluation has a contractionary consequence on economic growth. Gulzmann et al. (2012) on the other hand, in their study provides results that currency depreciation does not significantly affect the tradable sectors but has an effect on saving and investment which facilitates growth. A study by Jin (2008), examined the association between exchange rate and economic growth in Russia, Japan and China discovered that currency appreciation increase economic growth in Russia but reduces economic growth in Japan and China.

According to Hussain and Farooq (2009) analysis on the consequence of exchange rate volatility on economic growth in Pakistan employing quarterly data from the year 1982 to 2007 revealed that there is a long run positive relationship between exchange rate volatility and economic growth. A study on the Nigerian economy by Obansa et al. (2013), investigating the nexus between exchange rate and economic growth employing yearly data from 1970 to 2010 revealed that exchange rate has a significant impact on economic growth and concludes that exchange rate liberalisation is good for the Nigerian economy. Abdullahil et al. (2013) study on the Bangladesh economy, empirically examining how exchange rate variation affect price level and output revealed that currency depreciation has an expansionary effect on output level and their overall result is consistent with the opinion that exchange rate influences inflation and output. Asid et al. (2012) in their study on the effect of exchange rate on economic growth in Malaysia, employing the Autoregressive and Distributed Lag (ARDL) model estimation technique shows that there is a persistent long run relationship between nominal exchange rate, real exchange rate and economic growth while in the short run, exchange rate have a causal effect to economic growth. A panel data study of more than 180 countries by Edward and Levy-Yeyati (2003) revealed that countries with more flexibility in exchange rate grow faster.

This study adds to the exchange rate and growth literature by investigating the effect of exchange rate on economic growth in sub Saharan Africa. The study covers a panel of 18 countries in sub Saharan Africa, which we empirically investigate from the year 1981 to the year 2015. Our choice of dataset was between 1981 and 2017, so as to have a more recent analysis. Unfortunately, there were restrictions in sourcing for dataset for the period. However, the required dataset to capture the selected African countries studied fell within the period investigated. Moreover, the time period of 1981 to 2015 provides enough scope to capture both short and long-term relationships. Hence, the study adopts the panel pooled mean group estimation technique which allows for homogeneous long run relationship as well as accounting for heterogeneous short run relationship. Subsequent sub sections of this research work includes an overview of exchange rate regimes in sub Saharan Africa, methodology adopted in

the study as well as the specification of the research model, presentation and analysis of result and conclusions with relevant policy recommendations.

EXCHANGE RATE POLICIES IN SUB SAHARAN AFRICA

The policies of exchange rate can broadly be categorised into the flexible exchange rate policy regime also known as free floating, intermediate exchange rate regime and the fixed exchange rate policy regime also known as a pegged exchange rate policy.

The fixed exchange rate regime was adopted by most countries before 1971 with the belief that the regime ensures stability of the exchange rate which would help to curb price distortions as well as facilitating trade and investment. One distinctive feature in sub Saharan Africa to other developing regions is that nearly 60 percent of countries in sub Saharan Africa had a peg in 2014 compared with 47 percent in other developing countries and emerging market.

Exchange rate can also be distinguished between de jure and de facto exchange rate classification. de facto classification classifies an exchange rate regime according to the bearing of the exchange rate or the behaviour of the monetary authority based on statistical method together with qualitative judgement derived from the International Monetary Fund (IMF) country representative while the de jure classification signals what the monetary authorities announce the exchange rate to be in the IMFs Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER)

Since the end of the Bretton Woods system of fixed exchange rates in the 1970s, the number of countries running de jure floating exchange rate regimes has grown steadily (Salvov, 2011). In sub Saharan Africa, exchange rate policy regime encompasses the three exchange rate policy of the fixed, the intermediate and the flexible exchange rate regime. Exchange rate is sub Saharan Africa can as well be classified by the de facto arrangement in 10 sections as indicated in table 1 which may differ from the de jure arrangement.

Soft pegs describe the form of exchange rate regime applied to a currency in order to keep its value stable against a reserve currency or a basket of currencies. Hard pegs on the other hand describes the type of exchange rate regime predominantly determined by the monetary authorities while the floating regime describes an exchange rate regime where the price of the currency is fixed by the demand and supply of the currency with other currencies in the foreign exchange market. Residuals are other managed arrangements of the exchange rate.

Table 1: Exchange Rate Classification

Types	Categories				
	Conventional pegged arrangement	Pegged exchange rate within horizontal bands	Stabilise arrangement	Crawling peg	Crawl-like arrangement
Hard pegs	Exchange arrangement with no legal tender	Currency board arrangement			
Floating regime	Floating				
Residual	Other managed arrangement				

Source: IMF, AREAER (2016)

In sub Saharan Africa, Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Lesotho, Mali, Namibia, Niger, Senegal, Swaziland and Togo operated a soft peg under conventional pegged arrangement; Burundi, Democratic Republic of Congo, Nigeria and Sudan also had soft peg based on stabilised arrangement; Ethiopia, Mauritania and Papua New Guinea had soft pegs under a crawl-like arrangement with Botswana having a crawling peg. Djibouti operated a hard peg regime under currency board arrangement and Zimbabwe had a hard peg with no separate legal tender. Countries such as Ghana, Kenya, Madagascar, Malawi, Mozambique, Sierra Leone, South Africa, Tanzania, Uganda and Zambia operated a floating exchange rate regime (see, AREAER, 2016).

METHODOLOGY

The methodological aspect of this study begins with the test for the order of integration of the variables in the model. We employ the first generation unit root test of Levin et al. (2002), LLC, which assumes a common unit root process as well as Im et al. (2003), IPS, and ADF-Fisher panel unit root test proposed by Maddala and Wu (1999) and Choi (2001) which assumes a specific unit root process where the autocorrelation coefficients of the tested variables across cross-sections vary. These three tests are applied in a bid to account for the robustness of the individual results. We then apply the Pedroni (2004), Kao (1999) and the Johansen-Fisher panel cointegration tests to ascertain the presence of a cointegrating relationship amongst the variables in the model. Lastly, we estimate our econometric models applying the Pooled Mean Group (PMG) technique developed by Pesaran *et al* (1999) which constrains the long run elasticity to be equal across all cross sections and yields efficient and consistent estimates only when homogeneity restriction is true (Iheonu et al., 2017; Casni et al., 2014).

Model Specification

In understanding the influence of exchange rate on economic growth in sub Saharan Africa, we specify an econometric model as;

$$GDP_{it} = \alpha_0 + \alpha_1 EXC_{it} + \alpha_2 X_{1it} + \epsilon_{it} \quad (1)$$

Where, GDP is economic growth proxied by the Gross Domestic Product (GDP) per Capita in constant US$, we employed the constant US$ as against the current US$ as the former takes into consideration the rate of inflation, also we employed GDP per capita as against GDP as it is a reflection of productivity per person. EXC is the official exchange rate of the individual currencies in sub Saharan Africa countries to the US$, X_1 is a set of control variable which includes Capital proxied by the Gross Capital Formation in constant US$, Labour which we proxy with population ages 15-64 as a percentage of total population and Foreign Direct Investment (FDI) inflow (% of GDP).

In equation (1), a priori expectation of our control variables notes that capital and labour are expected to improve economic growth centred on the neoclassical production function. FDI inflow should also improve economic growth as it has strong tendencies of raising total productivity. Mileva (2008) had argued that FDI inflow is accompanied with increased capital inflow such as foreign loans and portfolio investment and thus help to reduce domestic interest rate, growing credit available to finance new domestic investment which then precipitates to economic growth. An empirical study by Iheonu (2016) has however shown that FDI crowds out domestic investment in sub Saharan Africa while some studies have observed a negative link between FDI and economic growth (Nuzhat, 2009; Dutt. 1997). Decomposing equation (1), we can then express our econometric model as;

$$GDP_{it} = \alpha_0 + \alpha_1 EXC_{it} + \alpha_2 Capital_{it} + \alpha_3 Labour_{it} + \alpha_4 FDI_{it} + \epsilon_{it} \quad (2)$$

In this study, *i* denotes cross sectional index while *t* denotes time index and ϵ is the error term. For ease of interpretation and interpreting in elasticity, we convert *GDP*, *EXC* and *Capital* to their natural logarithm.

Countries involved in this study which are based on data availability are; Benin, Botswana, Burkina Faso, Cameroon, Congo Republic, Equatorial Guinea, Gabon, Kenya, Lesotho, Mauritania, Mauritius, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Sudan and Swaziland. Data is obtained from the World Bank, World Development Indicator (WDI 2017).

ANALYSIS AND RESULTS

This section begins with the investigation of the order of integration for each individual variable in the model. The result discloses that the natural logarithm of GDP is not stationary in levels for the three panel unit root test utilised but stationary at first difference. The natural logarithm of

EXC on the other hand is stationary at first difference when the IPS and ADF panel unit root tests are employed but stationary in levels when the LLC unit root test is employed. Also, the natural logarithm of capital is observed to be stationary at first difference for all three panel unit root tests. The result also reveals that labour is stationary in levels under LLC but stationary at 5 percent significant level and at first difference under IPS and ADF.

Table 2: Panel Unit Root Test

Variables	Levin et al. (2002)		Im et al. (2003)		ADF-Fisher	
	Levels	First Diff.	Levels	First Diff.	Levels	First Diff.
GDP	0.0630	-8.8088*	4.5155	-10.4746*	15.0531	179.429*
EXC	-3.7187*		-0.3210	-11.4502*	28.8676	195.446*
Capital	1.0598	-10.2958*	4.3605	-12.9616*	10.6894	234.565*
Labour	-4.0018*		1.3776	-2.2271*	37.3076	51.4945**
FDI	-2.1989**		-3.2442*		66.5347*	

Note: Null Hypothesis: Unit Root. * and ** denotes significance at 1 and 5 percent respectively. Probabilities for Fisher tests are computed using an asymptotic chi-square distribution. All other tests assume asymptotic normality. All tests were conducted with the assumption of intercept and no trend.

Lastly, FDI is stationary in levels for the three panel unit root tests at 5 percent significant level for LLC and 1 percent significant level for IPS and ADF. Overall, it can be seen that there is a combination of I(0) and I(1) stationary variables in the model. This then validates the use of the panel PMG. According to Kang (2006), PMG has the benefit of allowing for heterogeneous short run dynamics for each cross section. It then allows the for long run homogeneity across the cross section. We test the null hypothesis of long run slope homogeneity in the coefficients using the Hausman test, with 5 percent level of significance as our benchmark significant level. PMG is an in-between procedure between the Mean Group (MG) estimator and the Dynamic Fixed Effects (DFE) estimator which involves pooling and averaging and according to Adusah-Poku (2016), MG estimator estimates *N* separate regressions and then computes the coefficient means while the DFE pools the data and assumes equal slope coefficients and error variance. Under long run slope homogeneity, the PMG estimator is consistent and efficient.

We proceed to validating the existence of long run relationship in the model by applying three cointegration techniques; the Pedroni (2004), Kao (1999) and the Johansen-Fisher panel cointegration technique. As with the panel unit root test, we applied these three techniques in order to also confirm robustness of the individual results. Table 3 presents result of the Pedroni test. The result discloses that for the panel within-dimension, both the statistic and the weighted statistic values for v-statistic and rho-statistic are not significant at any conventional statistical level while the PP statistic and the ADF-statistic are significant.

Table 3: Pedroni Panel Cointegration Test

Statistics	Within-Dimension (Panel)		Between-Dimension (Group)
	Statistics	Weighted Statistics	Statistics
V-Statistic	1.1047	-0.9929	
Rho-Statistic	-0.5721	1.6536	2.3390
PP-Statistic	-2.9632*	-1.8587**	-3.3081*
ADF-Statistic	-2.1949**	-4.3077*	-2.7206*

Note: Null Hypothesis: No cointegration. Trend assumption: No deterministic trend.
* and ** denotes statistical significance at 1 and 5 percent respectively.

For group between-dimension, while the rho-statistic is not significant, the PP statistic and the ADF statistic are significant. Out of the 11 statistic value, 6 are significant while 5 are insignificant. This result endorses the presence of cointegration amongst the variables in the model. The findings from the Kao cointegration test in table 4 as well as the Johansen-Fisher cointegration test in table 5 confirms the robustness of the result of Pedroni. The result from Kao reveals that the probability value of the ADF t-statistic is less than 10 percent level of significance which establishes the existence of long run associationship in the model.

Table 4: Kao Panel Cointegration Test

ADF t-statistic	Probability
-1.6049	0.0543***

Note: *** denotes statistical significance at 10 percent level.

Also, the Johansen-Fisher result reveals that both the trace test and the maximum eigen-value test indicates a strong presence of long run relationship amongst the variables in the model.

Table 5: Johansen-Fisher Panel Cointegration Test

Hypothesised No. of CE(s)	Fisher Stat(Trace Test)	Fisher Stat(Max-eigen Test)
None	272.8*	148.9*
At most 1	153.8*	81.93*
At most 2	95.96*	50.54***
At most 3	77.23*	49.77***
At most 4	87.52*	87.52*

Note: * and *** denotes statistical significance at 1 and 10 percent level respectively. Probabilities are computed using asymptotic Chi-Square distribution.

Estimating our model employing the PMG estimator shows that our convergence coefficient is negative, significant and less than one which is what to expect when a long run relationship exists in the model. With a coefficient value of -0.1603, on the average, long run equilibrium would be achieved at the speed of 16 percent annually.

Long run results shows that exchange rate has a significant positive effect on economic growth in sub Saharan Africa at a statistical significant level of 1 percent. A percentage increase in exchange rate leads to a 0.072 percentage point increase in economic growth in the long run. This denotes that in the long run, currency depreciation or devaluation from policy would enhance economic growth in sub Saharan Africa. Increase in exchange rate transmits to imports becoming more expensive and exports becoming less expensive (cheaper) and thus should increase trade balance in Africa which improves the overall economy of sub Saharan African countries. Capital on the other hand increases economic growth in sub Saharan Africa in the long run. A percentage increase in capital leads to a 0.27 percentage point increase in economic growth. This supports apriori expectations as capital is a chief cause of economic growth. On the other hand, in the long run, labour has a significant negative impact on economic growth. A percentage increase in labour leads to a 0.02 percentage point decrease in economic growth in sub Saharan Africa. This result could be arising due to the diminishing marginal returns to labour. The result also reveals that FDI has a significant negative impact on economic growth.

Table 6: Baseline Estimate

Dependent Variables	Pooled Mean Group	Mean Group	Dynamic Fixed Effect
Convergence	-0.1603*	-0.3792*	-0.0138
Coefficients	(0.000)	(0.000)	(0.121)
Long run coefficient			
EXC	0.0715*	0.1213	0.4224
	(0.000)	(0.332)	(0.238)
Capital	0.2720*	0.2541*	0.2830
	(0.000)	(0.000)	(0.302)
Labour	-0.0187*	-0.0067	-0.0772
	(0.000)	(0.803)	(0.412)
FDI	-0.0068*	0.0052	0.2499
	(0.000)	(0.502)	(0.145)
Short run coefficient			
EXC	-0.0404*	-0.0177	0.0114
	(0.008)	(0.184)	(0.294)

Table 6...

Capital	0.0600*	0.0207	0.0970*
	(0.000)	(0.106)	(0.000)
Labour	0.0118	-0.0300	0.0037
	(0.733)	(0.174)	(0.706)
FDI	-0.0003	-0.0014	-0.0038*
	(0.766)	(0.452)	(0.000)
Constant	0.3566*	0.7333	0.0525
	(0.000)	(0.111)	(0.461)
Hausman (PMG/MG)	0.5858		
Hausman (MG/DFE)	0.9836		
No. of Countries	18	18	18
No. of Observations	603	603	603

Note: * denotes statistical significance at 1 percent level. Probability values are in parenthesis. Model selection method: Alkaike Info Criterion (AIC).

The long run result from the MG estimator shows that capital is the only variable having a significant effect (positive) on economic growth while for the DFE estimator, none of the long run variable is significant. The DFE estimator also fails the convergence test as the probability value of the convergence coefficient can be seen to be insignificant.

In the short run, exchange rate has a significant negative influence on economic growth on the average for all cross sections. A percentage increase in exchange rate leads to a 0.04 percentage point decrease in economic growth. This could arise as a result of the immediate impact of currency depreciation/devaluation in sub Saharan Africa economies as it takes time for economies to adjust to changes in exchange rate which invariably affects prices of imports and exports. It should be noted that most sub Saharan African countries are greatly reliant on imports. Dependence of imports reduces aggregate supply mostly in the short run which in turn reduces economic growth. In the long run, countries adjust through import substitution and export promotion strategies as exports becomes cheaper relative to imports. Capital and labour in the short run have positive effect on economic growth and while capital is significant at 1 percent, labour is insignificant. A percentage increase in capital leads to a 0.06 percentage point increase in economic growth in the short run. FDI on the other hand has an insignificant negative influence on economic growth. In both the MG and the DFE estimate, exchange rate has an insignificant influence on economic growth in sub Saharan Africa and while the MG coefficient is positive, the DFE coefficient is negative.

The Hausman test result confirms that the long run homogeneity assumption cannot be rejected at 1 percent level of significance and as such the PMG estimate is most preferred.

According to Kang (2006), the MG procedure is the least restrictive and as such, potentially inefficient while the DFE allows for the individual intercepts to vary across countries. Hausman test also notes that the DFE is also a preferred technique compared to the MG.

Table 7: PMG Short Run Heterogeneous Results

Country	Convergence Coefficient	EXC	Country	Convergence Coefficient	EXC
Benin	-0.1044	-0.0340	Mauritania	-0.1241*	-0.0156
	(0.195)	(0.246)		(0.004)	(0.822)
Botswana	-0.0840**	-0.0474	Mauritius	-0.0169	-0.0731***
	(0.011)	(0.458)		(0.261)	(0.054)
Burkina	-0.1232	-0.0651**	Mozambique	-0.3120*	0.0479*
Faso	(0.103)	(0.037)		(0.000)	(0.001)
Cameroon	-0.1927**	0.0028	Nigeria	-0.2239**	-0.0784*
	(0.024)	(0.983)		(0.019)	(0.009)
Congo	-0.2216*	-0.0470	Rwanda	-0.2909*	0.0047
Republic	(0.004)	(0.425)		(0.001)	(0.957)
Equatorial	-0.1181*	-0.2456***	Senegal	-0.2739*	-0.0131
Guinea	(0.000)	(0.069)		(0.000)	(0.476)
Gabon	-0.2049*	0.0249	South Africa	-0.3944*	-0.0131
	(0.017)	(0.531)		(0.000)	(0.476)
Kenya	-0.0476	-0.0944*	Swaziland	-0.0471**	-0.0791***
	(0.132)	(0.002)		(0.046)	(0.098)
Lesotho	-0.0108	-0.0159	Sudan	-0.0944*	-0.0036
	(0.721)	(0.500)		(0.007)	(0.821)

Note: Dependent Variable: GDP. *, ** and *** denotes significance at 1, 5 and 10 percent respectively. Probability values are in parenthesis. Estimates included control variables which are not presented to ensure simplicity. EXC denotes exchange rate. Countries with red convergence probability value indicates insignificant convergence.

The study moves further to account for short run heterogeneity across cross section. Results in table 7 shows that the speed of convergence towards long run equilibrium varies across the countries which is a result of the countries distinct peculiarity. The result shows that for most of the countries employed in the study, currency depreciation/devaluation have a negative consequence on economic growth in the short run except for Rwanda, Mozambique, Gabon, Cameroon and Sudan which have positive effects with Mozambique having the only statistical significance at 1 percent level. Currency depreciation/devaluation in the countries of Benin,

Botswana, Congo Republic, Lesotho, Mauritania, Senegal, South Africa and Sudan all have negative but insignificant effect on economic growth while countries of Burkina Faso, Equatorial Guinea, Kenya, Nigeria and Swaziland have significant negative influence on economic growth. The result also shows that South Africa, Mozambique and Senegal converges faster towards long run equilibrium compared to other sub Saharan African countries as indicated by their coefficients while Mauritius, Lesotho and Swaziland are slowest in attaining long run equilibrium. The result of the short run effect of exchange rate on economic growth supports the conclusion by Ghosh, Ostry & Tsangarides (2010) that the appropriate exchange rate policy regime for a country depends on the macroeconomic challenges facing the country and its particular circumstances.

CONCLUSION

This study has investigated the long and short run effect of exchange rate on economic growth in sub Saharan Africa employing the PMG estimation technique for 18 sub Saharan African countries between the years 1981 to 2015. Prior to estimation, the study applied three different unit root techniques to account for the stationarity of the variables in the model. The result reveals that all the variables in the model are I(1) stationary except for FDI which is I(0). The study also applied three separate cointegration techniques of Pedroni, Kao and Johansen-Fisher with results revealing the existence of long run relationship in the model. Estimates from the PMG technique reveals that in the long run, currency depreciation or devaluation from economic policy have a positive and significant influence on economic growth in sub Saharan Africa. In the short run, country specific results revealed that in most countries in the panel, currency depreciation or devaluation from economic policy have varying effect on economic growth. This then means that short run recommendations cannot be generalised and as such country specific policies should be adopted in the short run in sub Saharan Africa. For countries with a negative influence of exchange rate on economic growth, it is not recommended for such countries to adopt an exchange rate devaluation neither is it advantageous to those economies for their exchange rate to depreciate due to its negative effect on economic growth., however countries with positive exchange rate effect on economic growth in the short run should adopt devaluation policies as well as allowing for exchange rate depreciation in order to spur growth. In the long run, governments in sub Saharan Africa would need to devalue their exchange rate in order to foster economic growth. Having analysed a selected number of economies, there is scope to further test the impact of exchange rates on economic growth of other countries of sub Saharan Africa. Suggested areas for further research will lend itself in assessing whether there are optimum currency in the areas outside the current territorial borders. Our research lays the

foundation for a greater understanding of how exchange rate policies can be better used to advance sub Saharan Africa economies.

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