

GLOBALIZATION, DEMOCRACY AND SIZE OF GOVERNMENT: TESTING FOR EFFICIENCY AND COMPENSATION HYPOTHESES FOR NIGERIA

Sola OLORUNFEMI¹ & R. Santos ALIM¹

DOI: 10.2478/tjeb-2020-0001

The relationship between globalization and government size is examined under the efficiency and compensation hypotheses in the literature. This study tests the extent to which the compensation effect, as hypothesized for developed nations, is able to explain the relationship between globalization and public spending in Nigeria. It also investigates the role of democratic regime in the globalization-government size. The study employed a new globalization index as a measure of globalization adapted from the KOF index proposed by Dreher (2006) and revised by Gygli, Haelg, Potrafke & Sturm (2018). Using annual dataset covering the period 1970-2017, the study applied ordinary least squares (OLS) with heteroscedasticity-robust standard errors as estimation technique. Using economic and overall index of globalization, the study favours the compensation hypothesis while social globalization and government size supports the efficiency hypothesis.

Keywords: Globalization, democracy, size of government, efficiency and compensation hypotheses

JEL Classification: E62, F43, H50, P48

¹ Department of Economics, Adekunle Ajasin University, Akungba-Akoko Ondo State, Nigeria

OLORUNFEMI S. & ALIM I R.S. (2020).

Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria

1. Introduction

The notion that a nation's economy benefits overall from free trade has been acknowledged in international economics for the past 200 years (Ricardo, 1817). However, there is recent realization that the gains from trade openness are not equally share

d across countries and that trade will undoubtedly bring about 'winners' and 'losers' (Walter, 2010). The onus is therefore on governments to guarantee open trade, pressured by international norms and profit-seeking interests and compensate the citizenry for any loss or negative effects this trade may cause.

There are two basic positions in the globalization and government spending debate – the “efficiency” hypothesis and the “compensation” hypothesis. These hypotheses are about the domestic effects of globalization that generate polar opposite predictions about patterns of government spending. The “compensation” hypothesis posits that policy makers increase government spending in response to globalization. It has been argued that globalization increases material inequality (Wood 1994) and economic insecurity (Rodrik 1997), and that this creates incentives for governments to compensate the losers from globalization (Garrett 1998). The demand coming from the political market creates incentives to compensate those who lose because of globalization. While the “efficiency” hypothesis strand infers that policy makers decrease government spending in response to globalization. Government expenditures lower the power of competition of domestic wages in international markets for goods and services. Income transfer programs and social services can cause labor markets and periodical instable investments in a negative way. In addition, under the efficiency hypothesis, globalization increases the mobility and productivity of capital owners who search for high rates of return. The demand coming from the supply side of the political market creates incentives to keep the mobile capital within the domestic market and decreases political activism (Sener, Bayrakdar, & Hacıoglu, 2015).

There are recent studies analysing the case of developed countries considering the relationship between globalization and the size of government. For instance, Adsera and Boix (2002), Petrou (2004), Shahbaz et al. (2010), Bayat, Tasat and Kayhab (2017) found evidence for compensation hypothesis. Other researchers, for example Garrett and Mitchell (2001), Kittel and Winner (2005), Liberati (2007), Ram (2009), Saahdong (2010), Dallinger (2013, 2014), Dixit (2014), Porto, Porto and Garbero (2016) reported findings that favour efficiency or disciplining hypothesis. Also, some studies posited that the two hypotheses could counterbalance each other, in which case empirical results would show no significant

OLORUNFEMI S. & ALIM I R.S. (2020).

Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria

associations between globalization and the size of government, among such works are Gemmell et al (2006) and Dreher et al (2008).

There are few existing studies that have considered the relationship between democracy and the size of government. For instance, Aidt and Eterovic (2011) suggest that political competition has an inverse relationship with the size of government spending, while the opposite is true for political participation. In addition, in the studies of Plümper and Martin (2003), Hausken et al. (2004) and Aidt et al. (2010), they establish that there exists a U-shaped relationship between democracy and government spending. Thereby, suggesting that for low levels of democracy, public spending is high to meet the demands of elites, while for high levels of democracy, the usual median voter's model prediction applies and public spending is high due to popular demand of public goods. However, for medium levels of democracy, none of these pressures is active and government spending is at its minimum (Dizaji, Farzanegan & Naghavi, 2014).

Contrary to Rodrik's thesis that proposes that countries that are larger traders tend to be exposed to more international market volatility, and that this creates incentives for governments to increase government spending to cushion these market dislocations, Down (2007) noted that economic theory suggests that economic openness and international trade give rise to risk diversification, promoting rather than reducing stability. Thus, the cause-effect of globalization - public spending might be different across levels of development. Rudra (2002) observes that there is a significant divergence between public spending in the developed countries and the one in the developing countries as globalization has increased. Evidence from literature shows that there has been far less consensus on the relationship between globalization and government size in developing countries (Sener, Bayrakdar & Hacıoglu 2015; Jeong 2010).

A few studies have attempted to test the compensation and efficiency hypotheses in Nigeria among which are Aregbeyen and Ibrahim (2014), Nwaka and Onifade (2015) and Adebayo and Olawale (2018). These studies explore globalization from the perspective of trade and financial openness and found evidence in support of the compensation hypothesis. This study is different from the previous works in that it employs a comprehensive measure that capture other globalization indicators. This study, thus, seeks to answer the question: to what extent is the compensation effect, as hypothesized for developed economies, able to explain the globalization and size of government in Nigeria? It also seeks to explain whether the democratic regime matters in the globalization-government size relationship. The rest of the paper is organized as follows. The next section provides stylized facts on the key variables – globalization, democracy and government size in Nigeria. Thereafter, data and method are

OLORUNFEMI S. & ALIM I R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*

described in section 3. Section 4 presents and discusses empirical results and ends with concluding remarks in section 5.

2. Stylized Facts on Globalization, Political Regimes and Government size in Nigeria

The Nigerian first democratic experience after the independence in 1960 was aborted by military dictatorship in 1966 and the second republic of 1979 was also truncated by military coup in 1983. The political regimes presented in Table 1 show that the share of public spending in gross domestic product (GDP) is higher during the military regimes. It has an average of 18.37% of GDP in the period 1966 to 1978 and average GDP growth during the period is 5.09%. The pattern of GDP growth does not follow a consistent form as the lowest (-1.65%) and the highest (5.52%) growth were recorded during democratic regimes (the periods 1979-1983 and 1999-2017). As such, establishing the relationship between political regimes and public sector indicators is not as simple as it appears.

Table 1: Stylized fact on Average Government Size and Economic Growth rate in different Political regimes

Year	Political regime	Average government size (% of GDP)	Average GDP growth (%)
1960-1965	Democratic Regimes – First Republic	7.05	3.81
1966-1978	Military Regimes	18.37	5.09
1979 -1983	Democratic Regime – Second Republic	3.60	-1.65
1984 -1998	Military Regimes	9.61	1.77
1999 -2017	Democratic Regimes – Third Republic	8.22	5.52
1960-2017	All Regimes	6.73	2.67

Source: Author's grouping, World Development Indicators (2018)

Figure 1 shows the evolution of the government expenditures in terms of GDP, which have been decreasing since 1999 when the country started the fourth republic; the size of government was 17.9% in 1999 and fell to about 7.3% in 2017 as depicted in Figure 1. This reduction in government size might be as a result of large values of Nigeria's gross domestic product, witnessed by rebasing of GDP in 2013. However, Figure 2 presents the trend of annual changes data on government expenditure, which shows that over the period 2003-2017, these changes range from 0.2 in 2003 to 2.2 in 2017.

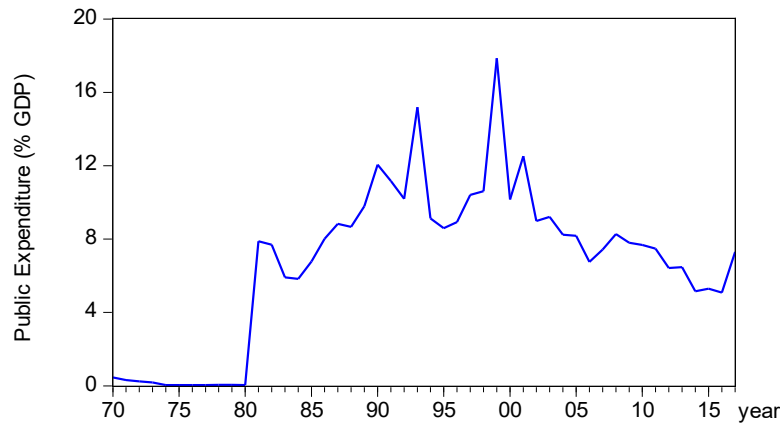
OLORUNFEMI S. & ALIM I R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*

Figure 1: Public Expenditure (% GDP), 1970-2017

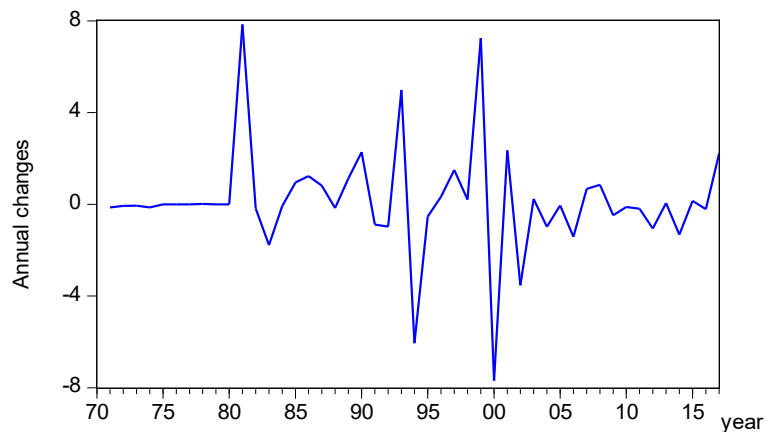


Figure 2: Annual changes in public expenditure

Source: Authors' elaboration using data from CBN

Figure 3 reports the economic, social, political and overall indicators of globalization. All indexes range between 0 (not globalized) and 100 (globalized). There has been reduction in the overall globalization index of Nigeria since 2014 with huge negative shock coming from the social globalization component especially in 2016 and 2017.

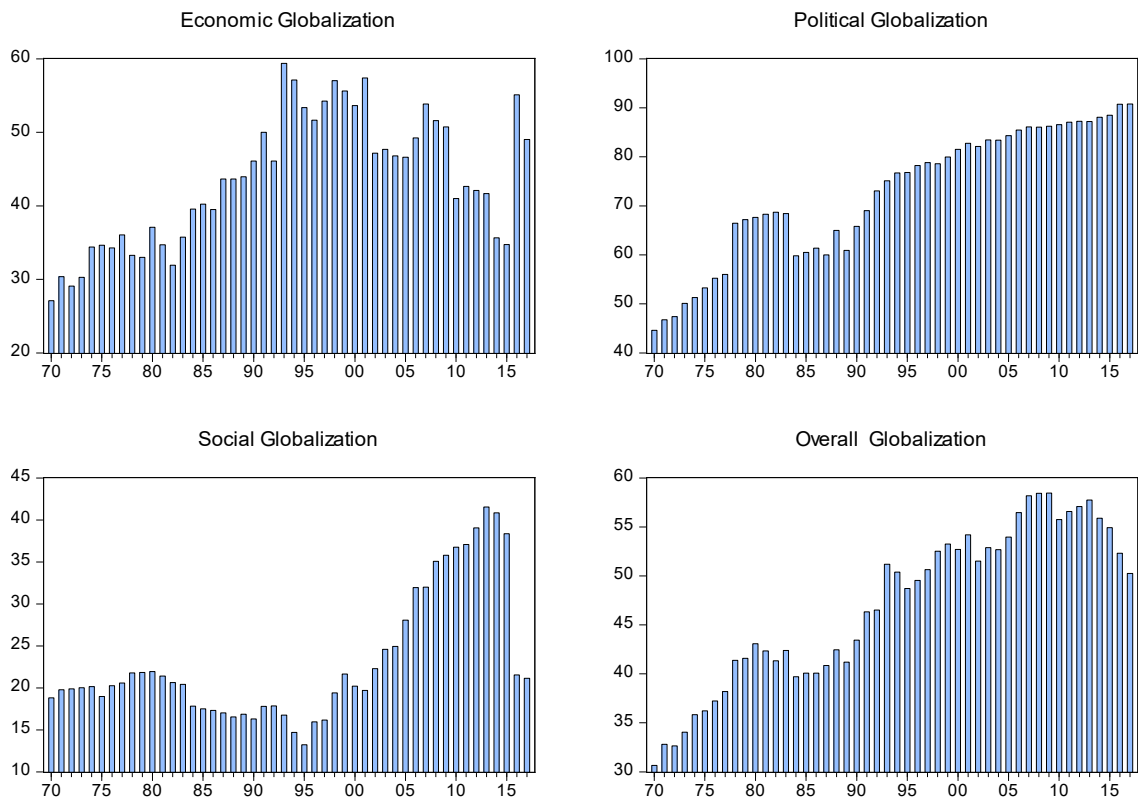
OLORUNFEMI S. & ALIM I.R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*

Figure 3: KOF Globalization Index

Source: Dreher (2006), <http://www.kof.ethz.ch/globalization>

3. Data and Methods

3.1 Data

The study employs annual dataset covering the period 1970-2017 for Nigeria. The variable used to measure the size of government is total government expenditure as a share of GDP (SOG) which is based on data obtained from the Central Bank of Nigeria (2018). For the globalization indicators, the study uses the KOF globalization indices that provides a more comprehensive measure of globalization. The KOF Index of Globalization was originally developed by Dreher (2006), Gygli, Haelg, Potrafke and Sturm (2018) and published by KOF Swiss Economic Institute. The KOF Index of Globalization covers three sub-indices: economic, social and political globalization; each of these dimensions has a specific definition as

OLORUNFEMI S. & ALIM I R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*

follows: Economic globalization implies –the long distance flows of goods, capital and services as well as information and perceptions that accompany market exchanges. Social globalization reflects –the spread of ideas, information, images and people. Political globalization refers to –the diffusion of government policies. (Dreher et al., 2008). Most of the recent studies have adopted KOF index of globalization because it’s a comprehensive measure that captures other globalization proxies (see Appendix I the components of KOF Index of Globalization). The economic, social, political and overall indicators of globalization are denoted as GLOBE, GLOBS, GLOBP and GLOB respectively in this study.

Following Bittencourt (2013) variables’ definitions, the study constructs two different sets of dummy variables to account for the role of democratic regime on government size. First measure, DEMO, accounts for the whole democratic period (a positive estimate suggests that the size of government increases under more democratic regimes) while the second measure, NDEMO, captures the number of years after democratisation. A negative and significant estimate of NDEMO indicates that the size of government decreases with time. In other word as the electorates mature over time or governments become more responsible and efficient the ratio of government to GDP reduces.

The study includes some control variables often used in the literature as the determinants of government spending and they are as follows: share of the liquid liabilities to GDP (FINDEV), it’s expected that in economies with better developed financial sectors, governments can acquire finance more easily and therefore increase in size via higher consumption and debt; and real gross domestic product per capita (INCOME) captures the productivity capacity of the economy. It is expected that in economies with low real gross domestic product, the size of government tends to be large and economies that are growing relatively fast during booms have the potentials of reducing their share of debt to GDP, subsequently engenders smaller government size. The percentage share of foreign aid in real GDP (AID) represents net inflow of foreign aid. The last explanatory variable is inflation rates (INF); it is expected that higher inflation, via higher nominal interest rates, leads to higher or even ballooning, debt, or bigger governments in general. All the control variables data are obtained from world development indicators (WDI, 2018). All data are in percentage point except series on globalization, democratic regime and population.

3.2 Model Specification and Estimation Technique

Following earlier studies such as Adams and Sakyi (2012) and Bittencourt (2013), the basic models we estimated have the following specification;

$$Y_t = \alpha + \beta_1 X_t + \beta_2 Z_t + \beta_3 W_t + \varepsilon_t \quad (1)$$

OLORUNFEMI S. & ALIM I R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*

where Y_t is the observations for government size in period t , X_t represents the indicators of globalization, Z_t captures the indicators of democracy and W_t represents the vector of the observations of control variables considered relevant in explaining size of government, ε_t is the error term with the usual properties. The model to be estimated is therefore specified as

$$SOG = \alpha_0 + \alpha_1 GLOB_t + \alpha_2 DEMO_t + \alpha_3 NDEMO_t + \alpha_4 FINDEV_t + \alpha_5 INCOME_t + \alpha_6 AID_t + \alpha_7 INF_t + \varepsilon_t \quad (2)$$

where SOG stands for measure of government size, GLOB measures of globalization, DEMO and NDEMO represent measures of democratic regime and the control variables as defined. A priori, the sign of the coefficients on globalization indicators are unknown due to the potential impact of the compensation hypothesis, the efficiency hypothesis and/or the mitigating effect of the compensation and efficiency hypothesis on government spending. Following Adams and Sakyi (2012), the study proceeds further by introducing interaction terms for globalization and democracy variables so as to determine if there are any mediating effects between globalization and democracy on government spending for Nigeria. The study employs Feasible Generalized Least Squares (FGLS) so as to correct problem of heteroscedasticity.

4. Presentation of Results and Discussion

4.1. Result of DF-GLS Unit Root Test and Johansen Cointegration Test

Table 2: DF-GLS Unit Root Test

Variables	Statistics at level	Statistics at first difference	Decision
FINDEV	-2.1570**	-	I(0)
AID	-4.4354	-	I(0)
INF	-3.3814	-	I(0)
INCOME	0.9085	-6.5791	I(1)
DEMO	-1.4561	-6.7452	I(1)
NDEMO	-0.5242	-6.8210	I(1)
GLOB	-0.5044	-5.5758	I(1)
GLOBE	-1.4585	-8.3433	I(1)
GLOBS	-1.2769	-5.3303	I(1)
GLOBP	0.3663	-6.9100	I(1)
GLOB*DEMO	-1.2431	-6.7494	I(1)
GLOBE*DEMO	-1.3951	-7.0555	I(1)
GLOBS*DEMO	-1.2176	-6.5248	I(1)
GLOBP*DEMO	-1.1314	-6.6895	I(1)

Test critical values: -3.7586 (1% level), -3.1804 (5% level) & -2.8810 (10% level)

OLORUNFEMI S. & ALIM I R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*

The unit root results reported in Tables 2 show that all the variables are stationary at first difference except series for inflation, foreign aid and financial development. Hence, the study applied Johansen cointegration tests to ascertain existence of long run relationship among the variables. As suggested by Hualde (2006), the study tested for cointegration among the variables that are integrated of order one only.

Table 3: Results of Johansen Cointegration tests

Model		Number of Cointegrating Relations selected at 5% level (Intercept, No trend)	
		Trace Statistic	Max-Eig Statistic
1	$SOG=f(GLOB_t, DEMO_t, NDEMO_t, W_t)$	2	1
2	$SOG=f(GLOB_t, DEMO_t, NDEMO_t, GLOB*DEMO_t, W_t)$	2	1
3	$SOG=f(GLOBE_t, GLOBS_t, GLOBP_t, DEMO_t, NDEMO_t, W_t)$	3	2
4	$SOG=f(GLOBE_t, GLOBS_t, GLOBP_t, DEMO_t, NDEMO_t, GLOBE*DEMO_t, GLOBS*DEMO_t, GLOBP*DEMO_t, W_t)$	8	5
5	$SOG=f(GLOBE_t, DEMO_t, NDEMO_t, GLOBE*DEMO_t, W_t)$	4	2
6	$SOG=f(GLOBS_t, DEMO_t, NDEMO_t, GLOBS*DEMO_t, W_t)$	2	2
7	$SOG=f(GLOBP_t, DEMO_t, NDEMO_t, GLOBP*DEMO_t, W_t)$	3	1

The results of the cointegration test presented in Table 3 suggested at least one cointegrating vectors for the models. Since the series are cointegrated, it becomes evident that long run relationship exists among the variables. The study therefore proceeded to estimate the long run regression models using OLS with heteroscedasticity-robust standard errors.

4.2. Result of Long Run Estimates and Discussions

It is found from model 1 in Table 4 that there is positive and significant relationship between globalization (as measured by the overall KOF's index) and government spending in Nigeria. The estimated result with KOF sub-indices of globalization (see model 3) shows that only economic globalization has positive and significant impact on government spending while social and political globalization are negative and insignificant. The result on economic globalization lends support to Rodrik's hypothesis of a positive relationship between economic globalisation and government size, social and political globalization tends to decrease the growth of government spending in Nigeria. The positive estimate of DEMO suggests that government size increases under more democratic regimes while the negative coefficient of NDEMO suggests that as electorates mature and governments become more responsible and efficient, the share of government to GDP reduces for Nigeria.

OLORUNFEMI S. & ALIM I R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria***Table 4: Regression results: Dependent Variable - SOG**

Variables	1	2	3	4	5	6	7
Constant	-11.541***	-20.950***	-0.7351	14.796**	-9.410***	9.344**	2.859
GLOB	0.5412***	0.9224***					
GLOBE			0.313***	0.141	0.465***		
GLOBS			-0.003	-0.519		-0.497**	
GLOBP			-0.131	-0.227			-0.106
DEMO	-0.3227	22.126**	2.590**	50.729**	14.956***	-0.696	86.94***
NDEMO	-1.5968	4.959*	-3.394**	8.840**	3.448	-0.293	11.89***
GLOB*DEMO		-0.551**					
GLOBE*DEMO				0.018	-0.345***		
GLOBS*DEMO				0.423		0.093	
GLOBP*DEMO				-0.828***			-1.247***
AID	-0.7585***	-0.799***	-0.598***	-0.399***	-0.466***	-0.440***	-0.245
INF	0.0627**	-0.003	0.001	-0.001	0.023	-0.009	-0.006
INCOME	0.1964	-1.819**	2.926**	5.144***	-0.231	3.901	5.871***
FINDEV	-0.4748***	-0.495***	-0.329***	-0.160**	-0.301***	-0.207***	-0.227***

Model 1 reports the result with KOF overall index of globalization (GLOB) and model 2 introduces the interaction terms between globalization and indicator of democracy (DEMO). Model 3 includes the all KOF sub-indices of globalization - economic (GLOBE), social (GLOBS) and political (GLOBP) while model 4 reports results with their interaction terms. Model 5 - 7 incorporate separately each of the KOF sub-indices of globalization with its interaction term in each model.

The coefficients of the real gross domestic product per capita variable are positive and significant for three of the models. This suggests that increase in the productivity capacity of the economy begets rise in public spending. Contrary to the idea of overdependence on foreign aid by developing countries' government in pursuit of their developmental agenda, the coefficient of foreign aid is negative in all the models and highly significant in six out of seven regression models for Nigeria. Similarly, the coefficients of financial development are negative in all the models and highly significant in six out of seven regression models. Although it is expected that with better developed financial sectors, governments can access funds more easily and therefore increase in size via higher consumption and debt, but this position is not supported by data for Nigeria. Inflation as control variable is not significant in all the regression models except in model 1. As a result, the study can infer that inflation is not a significant determinant of rise in government size.

With the presence of the interaction terms (Model 5), the initial conclusion on the coefficients of economic globalization does not change. This result confirms the compensation hypothesis stand in the findings by Aregbeyen and Ibrahim (2014), Nwaka and Onifade (2015), and Bayat, Tasat and Kayhab (2017). In model 6, the estimated coefficient of the index of social globalization is now significant with negative coefficient, compare with its insignificance level under Model 3 and Model 4. Using social globalization measure of globalization, the result supports efficiency hypothesis which is in agreement with the findings of Liberati (2007), Katumba (2013) and Dixit (2014). It is observed that the coefficients of all the interaction terms are negative and statistically significant (with the exception of the interaction between

OLORUNFEMI S. & ALIM I R.S. (2020).

Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria

social globalisation and democracy) implying that democracy could mitigate the positive effect of economic globalization (and overall KOF) on government size in Nigeria.

To sum up, the results presented imply that globalisation (economic and the overall KOF Index) and democracy increase government spending while social globalization and democracy have led to a reduction in government spending in Nigeria. The study does not find support for the influence of political globalization on government size; however, with democracy as the mediating factor, there is evidence that political institutions negatively affect the sensitivity of government spending to globalization.

The positive and significant coefficient of the democracy variable suggests that the size of government spending increases under democratic regime in Nigeria. This might be as a result of the desire of the politicians to fulfil electoral promises and meet the yawning of the electorates in terms of providing basic infrastructures such as electricity, good road among others. The above position provides rationale for National Assembly (legislative arm of government in Nigeria) gesture of almost always pushing up of the national budget presented by the executive arm of government in the third republic since 1999. Furthermore, this study validates the hypothesis that as the electorates mature over time or government becomes more responsible and efficient, the ratio of government spending to GDP reduces. Nevertheless, the current state of low electoral awareness and education coupled with missing accountability on the part of the politicians do not portraint that government size will reduce in foreseeable future.

Policy implication of the validity of compensation hypothesis for Nigeria, therefore, is dare. This is because policy makers will be faced with the challenges of maintaining a large government size in order to protect social groups and local entities from the negative impacts of globalization and on the other hand being mindful of meeting national debt obligations (a recent phenomenon in Nigeria) and maintaining economic prosperity. It therefore becomes imperative for the Nigerian government to protect the national economy from possible threats in its efforts towards economic integration and globalization.

5. Concluding remarks

This study has examined the relationships among globalization, democracy, and government size in Nigeria using the new index of globalization. It found that economic globalization and overall index of globalization have a significant positive effect on government size, thus supporting the compensation hypothesis while social globalization is negatively and significantly related to the size of government, thereby supporting the efficiency hypothesis. The study also observed that democracy and the number of years of democratisation have

OLORUNFEMI S. & ALIM I. R. S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*

relative association with government size. This study is limited in scope of government expenditures employed. It thus suggests that future research may examine how globalization is impacting on the composition of government expenditures, especially social spending.

References

- Adams, S. & Sakyi, D. (2012). Globalization, democracy and government spending in Sub-Saharan Africa: Evidence from panel data. In Zlatan D. (Eds), *Globalization and Responsibility* (137-152). Croatia: InTech.
- Adebayo, T. O. & Olawale, K. O. (2018). Openness and government size: The compensation and efficiency hypotheses considered for Nigeria. *E3 Journal of Business Management and Economics*, 9(1), 12-21
- Adserà, A. & C. Boix, (2002): Trade, Democracy and the Size of the Public Sector: The Political Underpinnings of Openness, *International Organization*, 56: 229-262.
- Aidt, T. S., and Eterovic, D. S. (2011). Political competition, electoral participation and public finance in 20th century Latin America. *European Journal of Political Economy* 27, 181–200.
- Aidt, T. S., Dutta, J. and Dauntan, M. (2010). The retrenchment hypothesis and the extension of the franchise in England and Wales. *The Economic Journal* 120, 990–1020.
- Bayat, T., Tasat, I. & Kayhab, S. (2017). The validity of efficiency and compensation hypothesis for G7 countries. *Ecoforum*, 6 Issue 2(11)
- Bittencourt, M. (2013). *Young Democracies and Government Size: Evidence from South America*. Economic Research Southern Africa (ERSA) working paper 329.
- Dallinger, U. (2013). Economic Openness and Domestic Demand for Social Protection: A Multi-Level Analysis of Social Security Preferences between 1990 and 2006. *Comparative Sociology* 12(5):585–616.
- Dallinger, U. 2014. Globalization and Demand for Social Security: A Critical Examination of the Domestic Demand Approach. *Berliner Journal fur Soziologie* 24(1):59–88.
- Dixit, V. (2014). Relation between Trade Openness, Capital Openness and Government Size in India: An Application of Bounds Testing-ARDL Approach to Co- integration. *Foreign Trade Review*, 49(1) 1–29
- Dizaji, S. F., Farzanegan, M. R. and Naghavi, A. (2014). Political Institutions and Government Spending Behavior: Theory and Evidence from Iran. *Quaderni - Working Paper DSE* No. 986.
- Dreher, A. (2006). Does globalization affect growth? Evidence from a new index of globalization. *Applied Economics* 38(10), 1091-1110
- Dreher, A., Gaston, N., & Martens, P. (2008). *Measuring globalisation: Gauging its consequences*. Springer Science and Business Media.
- Dreher, A., Jan-E, S, & Ursprung, H.W. (2008). The impact of globalization on composition of Government expenditures: Evidence from panel data, *Public Choice* 134:263-292
- Dreher, A., Sturm, J & Ursprung, H. W. (2006). The impact of globalization on the composition of government expenditures: Evidence from panel data. CESifo Working Paper No. 1755. https://www.cesifo-group.de/DocDL/cesifo1_wp1755.pdf

OLORUNFEMI S. & ALIM I. R.S. (2020).

Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria

- Garret, G. (1999). Globalization and government spending around the world. A paper presented at the 1999 Annual Meetings of the American Political Science Association, Atlanta GA, September 1-5.
- Garrett, G. & Mitchell, D. (2001). Globalization, government spending and Taxation in OECD. *European Journal of Political Research* 39:145-177.
- Garrett, G. (1998). Global Markets and National Politics: Collision Course or Virtuous Circle? *International Organization* 52: 787-824.
- Gemmell N., Kneller R.Y & Sanz I. (2006): Globalization and the composition of Government Spending, An analysis for OECD countries. Foundation of Spanish saving banks (FUNCAS), working paper 289.
- Gygli, S., Haelg, F., Potrafke, N. & Sturm, J. (2018). The KOF Globalisation Index - Revisited. Review of International Organizations, <https://doi.org/10.1007/s11558-019-09344-2>
- Hausken, K., Martin, C.W. and Plümpert, T. (2004). Government spending and taxation in democracies and autocracies. *Constitutional Political Economy* 15, 239–259.
- Hualde, J. (2006). Unbalanced Cointegration. *Econometric Theory*, 22(5), 765-814.
- Jeong, H. (2010). Globalization and the Politics of the Welfare State. Ph.D. dissertation, University of Kentucky.
- Katumba, O. S. (2013). "Globalization and Government Size: Adopting the Mean Group Estimator Model." An Unpublished M.Sc Thesis.
- Kittel, B. & Winner, H. (2005). How reliable is pooled analysis in political economy? The Globalization welfare state nexus revisited. *European Journal of Political Research*, 44(2), 263-293
- Plümpert, T. & Martin, C. W. (2003). Deocracy, government spending and economic growth: A political-economic explanation of the Barro-effect. *Public Choice* 117: 27-50
- Porto, A., Porto, N. & Garbero, N. (2016). The Impact of Globalization on Subnational Expenditures: Efficiency and Compensation Effects. *Journal of Finance and Economics*, 4(2):1-22
- Porto, A., Porto, N., & Garbero, N. (2016). The impact of globalization on subnational expenditures: Efficiency and compensation effects. *Journal of Finance and Economics*, 4(2), 1-22. <http://dx.doi.org/10.12735/jfe.v4n2p01>
- Ricardo, D. (1817). *On the Principles of Political Economy and Taxation*. Ed. John Murray. London.
- Rodrik, D. (1997). *Has Globalization Gone Too Far?* Washington, DC: Institute for International Economics.
- Rudra, N. (2002). Globalization and the Decline of the Welfare State in Less-Developed Countries. *International Organization* 56 (Spring): 411-428.
- Saahdong, C. I. (2010). The Relationship between Globalization and Public Spending: Empirical evidence from the Nordic Countries. Master Thesis, Lund University
- Sener, S. Bayrakdar, B. & Hacıoglu, V. (2015). The Analysis for the Validity of Compensation and Efficiency Hypotheses in Turkey between 1975 and 2013. *Procedia - Social and Behavioral Sciences* 195: 624 – 631
- Walter, S. (2010). Globalization and the Welfare State: Testing the Microfoundations of the Compensation Hypothesis. *International Studies Quarterly* 54(2):403–26.

OLORUNFEMI S. & ALIM R.S. (2020).*Globalization, Democracy and Size of Government: Testing for Efficiency and Compensation Hypotheses for Nigeria*Wood, A. (1994). *North-South Trade, Employment and Inequality*. New York: Oxford University Press.

World Development Indicators, WDI (2018)

Appendix I

Structure of the KOF Globalization Index

Globalisation Index, de facto	Weights	Globalisation Index, de jure	Weights
Economic Globalisation, de facto	33.3	Economic Globalisation, de jure	33.3
Trade Globalisation, de facto	50.0	Trade Globalisation, de jure	50.0
Trade in goods	38.8	Trade regulations	26.8
Trade in services	44.7	Trade taxes	24.4
Trade partner diversity	16.5	Tariffs	25.6
		Trade agreements	23.2
Financial Globalisation, de facto	50.0	Financial Globalisation, de jure	50.0
Foreign direct investment	26.7	Investment restrictions	33.3
Portfolio investment	16.5	Capital account openness	38.5
International debt	27.6	International Investment Agreements	28.2
International reserves	2.1		
International income payment	27.1		
Social Globalisation, de facto	33.3	Social Globalisation, de jure	33.3
Interpersonal Globalisation, de facto	33.3	Interpersonal Globalisation, de jure	33.3
International voice traffic	20.8	Telephone subscriptions	39.9
Transfers	21.9	Freedom to visit	32.7
International tourism	21.0	International airports	27.4
International students	19.1		
Migration	17.2		
Informational Globalisation, de facto	33.3	Informational Globalisation, de jure	33.3
Used internet bandwidth	37.2	Television access	36.8
International patents	28.3	Internet access	42.6
High technology exports	34.5	Press freedom	20.6
Cultural Globalisation, de facto	33.3	Cultural Globalisation	33.3
Trade in cultural goods	28.1	Gender parity	24.7
Trade in personal services	24.6	Human capital	41.4
International trademarks	9.7	Civil liberties	33.9
McDonald's restaurant	21.6		
IKEA stores	16.0		
Political Globalisation, de facto	33.3	Political Globalisation, de jure	33.3
Embassies	36.5	International organisations	36.2
UN peace keeping missions	25.7	International treaties	33.4
International NGOs	37.8	Treaty partner diversity	30.4

Sources: Dreher (2005) and Gygli, S., Haelg, F., Potrafke, N. & Sturm, J. (2018).

Notes: Weights in percentage for the year 2016. Weights for the individual variables are time variant. Overall indices for each aggregation level are calculated by the average of the respective de facto and de jure indices. Weights may not sum to 100 because of rounding. All indexes range between 0 (not globalized) and 100 (globalized).