Iranian Economic Review 2022, 26(3): 525-534
DOI: 10.22059/ier.2021.79458

RESEARCH PAPER

Openness and Government Size: Evidence from Sub-Saharan African Countries

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Received: 20 August 2020, Revised: 09 October 2020, Accepted: 10 November 2020

Abstract
Over the years, African countries have implemented various economic liberalization reforms. The impact of such policy reforms on government size has remained a contentious issue in the literature. Thus, this study examined the relationship between openness and government size in Sub-Saharan African countries. The study covered twenty-one African countries over the period 2001 to 2019. Specifically, the study examined the validity of the compensation and efficiency hypotheses concerning Sub-Saharan African countries. The study's findings did not support the existence of both the compensation and the efficiency hypotheses. Also, it was observed that financial openness slightly influenced the relationship between trade openness and government size in Sub-Saharan African countries. Thus, the study concludes that the compensated and the efficiency hypotheses do not hold for Sub-Saharan African countries.
Keywords: Government Size, Financial Openness, Trade Openness, Sub-Saharan Africa, Panel Analysis.
JEL Classification: E62, F19.

Introduction

The desire for sustainable growth and improve balance of payment positions has prompted developing countries in general and African countries in particular in initiating various liberalization policies. Prominent among these policies are trade and financial liberalization which is premised on the believe that trade is vital to economic growth while financial liberalization provides access to foreign capital which is essential to bridge the saving-investment gap in African economies. In spite of the potential benefits of openness to domestic economies, there are contending issues on the link between openness and government size. Theoretical literature on openness and government size is described by the compensation and efficiency hypotheses. The compensation hypothesis emphasized a positive link between trade openness and government size – trade openness increases the exposure of the domestic economy to external risks leading to increase demand for public expenditures to compensate for external risks (Benarroch and Pandey, 2008; Bretschger and Hettich, 2002). On the other hand, the efficiency hypothesis emphasized a negative link between financial openness and government size - greater financial openness may lead to higher mobility of tax factors and domestic funds to foreign countries in attempt at finding high investment returns; thereby making it difficult for the domestic government in issuing public debt which reduces the ability of the government in maintaining large public sector (Dixit, 2014; Kimakova, 2009; Liberati, 2007).

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The positive link between trade openness and government size in the presence of financial openness has been a subject of empirical debate. According to Liberati (2007), a high degree of financial openness may lead to higher mobility of tax factors or mobile production factors, thereby reducing the revenue of the government and its strength in maintaining large public sector. It therefore becomes unclear how trade openness may exert a positive impact on government size amongst decline in the potential revenue of the government.

Literatures on the role of financial openness in the relationship between trade openness and government size have focused majorly on foreign countries while very limited literature exists with respect to Sub-Saharan African countries. The few studies on African countries are country specific and have focused either on financial openness and government size or on trade openness and government (Olawole and Adebayo, 2017; Nwaka and Onifade, 2015; Aregbeyen and Ibrahim, 2014). Also, these studies failed to examine the role of financial openness on the link between trade openness and government size with respect to Sub-Saharan African countries. In the light of the above, the following research questions are raised for investigation. (a) What is the link between openness (financial and trade) and government size in Sub-Saharan African countries? (b) Does financial openness influence the relationship between trade openness and government size in Sub-Saharan African countries?

Researching on the above raised issues is vital for Sub-Saharan African economies because since the mid-1980s most Sub-Saharan African economies have and still initiating economic reforms for a wider integration into the global economy. However, the impact of more openness on the size of the government in the region has remained uncertain owing to the paucity of knowledge in literature. Addressing this gap is germane because studies have noted that more open economies are more volatile due to external shocks as most African economies are either natural resource driven or agricultural driven. Such external shocks undoubtedly initiate and increase output volatility in these economies (Xavie et al., 2008). Thus a large government size acts as an automatic stabilizer in cushioning or dampening the effect of such external shocks on the economy (Gali, 1994; Mohanty and Zampoli, 2009). Importantly, the findings of this study will show the validity or otherwise of the compensation and efficiency hypotheses with respect to Sub-Saharan African countries.

Literature Review

The theoretical link between openness and government size is viewed from the compensation and efficiency hypotheses. The compensation hypothesis noted that trade openness increases external risks and economic inequalities thereby necessitating more government spending as a compensation for such external risks. On the other hand, the efficiency hypothesis emphasized that financial openness reduces the revenue generating capacity of the government through mobility of factors of production, fiscal competition, and electronic commerce, thereby reducing government expenditures particularly on social welfare (Schuknecht and Tanzi, 2000; Masson, 2000, Schulze and Ursprung, 1999).

Empirical literatures testing the compensation and efficiency hypotheses can be traced to pioneer study by Rodrik (1997) on a group of nineteen OECD countries for the period 1965 to 1991. The study observed a negative and significant relationship between financial openness and capital taxes, thereby validating the efficiency hypothesis. De Mendonca and De Oliveira (2019) analyzed the relationship between openness and government size for a panel of 124 countries over the period 1980 to 2016. Specifically, the study examined the validity of compensation and efficiency hypotheses. The study observed that an insignificant relationship between financial openness and government size while trade openness and globalization have significant relationship with government size in developing countries.

Farhad and Jetter (2019) examined the relationship between trade openness and

government size for a panel of 143 countries over the period 2000 to 2016. Exploring areas of public spending, the study observed that government spending on economic affairs and housing had positive and significant relationship with trade openness, while public spending on education, health care, and the military are not immediately concerned of the sampled countries. Olawole and Adebayo (2017) examined the compensation and efficiency hypotheses for the case of Nigeria. The study covered the period 1986 to 2015 and employed the autoregressive distributed lag (ARDL) approach. The results from the ARDL estimates showed the validity of both the compensated and efficiency hypotheses, that is, a positive and significant relationship between trade openness and government size while a negative and significant relationship was observed between financial openness and government size. In Pakistan, study by Shahbaz et al. (2010) observed a positive and significant relationship between trade openness and government size while the relationship between financial openness and government size was negative and significant, indicating the validity of both the efficiency and compensated hypotheses. Similar results were obtained by Nahidi et al. (2013).

However, Katumba (2013) observed that both financial and trade openness had negative and significant impact on government size, showing the validity of the efficiency hypothesis but rejecting the validity of the compensation hypothesis. Similar results were obtained by later study of Parvizkhanlou (2014) for a group of seven OECD countries over the period 2000 to 2009. Liberati (2007) examined the validity of the compensation and efficiency hypotheses using cross-sectional time-series. The study observed a significant and inverse relationship between capital openness and government size, indicating the validity of the efficiency hypothesis while result of the study did not support the compensated hypothesis.

Bretschger and Hettich (2002) observed that both trade and financial openness had positive and significant relationship with social welfare expenditure. Garrett (1995) examined the link between financial openness and capital taxation for the period 1976 to 1990. The study focused on the growth of fifteen (15) OECD countries and utilized panel regression technique. The findings of the study showed a positive relationship between financial openness and capital taxation. These findings were supported by later study of Quinn (1997) for a group of sixty-four countries over the period 1974 to 1989. Also, Kimakova (2009) observed positive relationship between financial openness and government size while a positive relationship was observed between trade openness and government size. Swank (1998) using a panel data of seventeen OECD countries for the period 1966 to 1993, observed an insignificant relationship between financial openness and corporate taxation. Study by Aydogus and Topcu (2013) in Turkey observed no evidence supporting the compensation hypothesis.

Empirical evidences from the above reviewed literatures showed inconclusiveness on the validity of both the compensation and efficiency hypothesis. Also, most of the study focused on developed and OECD countries while studies in Sub-Saharan African countries are either limited or in non-existence. The few country specific African-study such as Olawole and Adebayo (2017) did not consider the role of financial openness in the relationship between trade openness and government size, In the light of the above, this study examined the relationship among trade openness, financial openness and government size with respect to Sub-Saharan African countries over the period 2001 to 2019.

Research Methods

Model Specification

This study adopts a modified model of Liberati (2007) on openness and government size. The baseline model for this study is specified as:

$$GS_{i,t} = f\left(TOP, FOP, PCI, CS\right) \quad (1)$$

Equation (1) can be written in equation form as:

$$GS_{i,t} = \delta_0 + \delta_1 TOP_{i,t} + \delta_2 FOP_{i,t} + \delta_3 PCI_{i,t} + \delta_4 LCS_{i,t} + \left(\phi_{i,t} + \varepsilon_{i,t}\right) \quad (2)$$

From equation (2), GS is government size, TOP is trade openness, FOP is financial openness, PCI is per capita income, CS is country size and $\left(\phi_{i,t} + \varepsilon_{i,t}\right)$ is the composed error term which combines the individual countries specific random effect, to control for all unobservable effects on the dependent variable that are unique to the individual countries and do not vary over time $\left(\phi_{i,t}\right)$, and an error that varies over both individual countries and time $\left(\varepsilon_{i,t}\right)$.

To overcome potential endogeneity problems and unobserved country-specific effects which characterize the panel data, this study employs the dynamic Generalized Method of Moments (GMM) first developed by Holtz-Eakin, Newey and Rosen (1988). Two popular varieties of the dynamic GMM models are the "difference GMM" technique developed by Arellano and Bond (1991), and the "system GMM" developed by Arellano and Bover (1995). The difference GMM technique follows the Arellano and Bond (1991) data transformation, where differences are instrumented by levels. However, the system GMM method adds to this one extra layer of instrumentation where the original levels are instrumented with differences (Arellano and Bover ,1995). Studies that have used the system GMM estimation technique have argued that, it performs better than the other panel techniques such the OLS, fixed effect, random effect and difference GMM methods (see Kavya and Shijin, 2020; Fosu, 2017; Agyemang, 2014; Piper, 2014). Blundell and Bond (1998) noted that system GMM allows for the correction of measurement errors in the other regressors. Also, Roodman (2009) argued that system GMM allows for more instruments and can dramatically improve efficiency compared to difference GMM (Piper, 2014). Thus, expressing equations (1) in dynamic form becomes:

$$GS_{i,t} = \delta_0 + \chi_1 GS_{i,t-1} + \delta_1 TOP_{i,t} + \delta_2 FOP_{i,t} + \delta_3 PCI_{i,t} + \delta_4 LCS_{i,t} + (\varphi_i + \varepsilon_{i,t}) \quad (3)$$

With respect to the objectives of this study, models 3 and 4 below were estimated to achieve objective one.

$$GS_{i,t} = \delta_0 + \chi_2 GS_{i,t-1} + \delta_1 TOP_{i,t} + \delta_2 PCI_{i,t} + \delta_3 LCS_{i,t} + (\phi_{i,t} + \varepsilon_{i,t}) \quad (4)$$

Model 3 is estimated to access the independent impact of trade openness on government size without the influence of financial openness while model 4 is estimated to access the independent impact of financial openness on government size without the influence of trade openness.

$$GS_{i,t} = \delta_0 + \chi_3 GS_{i,t-3} + \delta_1 FOP_{i,t} + \delta_2 PCI_{i,t} + \delta_3 LCS_{i,t} + (\phi_{i,t} + \varepsilon_{i,t}) \quad (5)$$

With respect to objective 2, model 2 is estimated, in order to examine the role of financial openness in the relationship between trade openness and government size. Examining this issue is pertinent in validating or otherwise the claim by Liberati (2007) that financial openness may undermine the positive relation between trade openness and government size.

Theoretically it is expected that trade openness would positively influence government size because increases in the exposure of the domestic economy to external risks would lead to increase demand for public expenditures to compensate for external risks (Benarroch and Pandey, 2008). A negative relationship is expected between financial openness and government size. This is because greater financial openness may lead to higher mobility of tax factors and domestic funds to foreign countries in attempt at finding high investment returns; thereby reducing the ability of the government in maintaining large public sector (Dixit, 2014). Per capita income (PCI) and country size are introduced into the model because studies (see Maluleke, 2017; Turan and Karakas, 2016; Lamartina and Zaghini, 2010) have identified these variables as significant determinants of government size. Theoretically, the expected relationship between per capita income (PCI) and government size is negative. This is because as the average income of the individual increases which signifies improve welfare, government expenditures reduces while as country size increases government expenditure is also expected to increase in order to cater for the increasing needs of the citizenry.

Measurement of Variables and Sources

For this study, government size (GS), is measure by the ratio of government final consumption expenditure to GDP, trade openness (TOP) is measured by the ratio of import plus export to GDP, financial openness (FOP) is measured by net inflow of foreign direct investment (FDI), per capita income (PCI) is measured by the ratio of real GDP to population while country size (CS) is measured by the log of population. Annual data on Sub-Saharan African countries were sourced from the World Development Indicator (WDI) bulletin 2019 edition. Owing to data availability, the study uses balanced panel data for twenty-one Sub-Saharan African countries over the period 2001 to 2019, thereby resulting in 399 observations. The twenty-one African countries covered are -: Angola, Benin, Botswana, Burkina Faso, Congo Republic, Congo Democratic, Cote d Ivorie, Equatorial Guinea, The Gambia, Lesotho, Malawi, Mali, Mauritius, Namibia, Nigeria, Seychelles, Serria Leone, South Africa, Swaziland, Togo and Zambia. Data on the remaining Sub-Saharan African countries were not available.

Estimation Technique

As justified above, this study employs the dynamic panel system Generalized Method of Moments estimation technique. In addition, the study conducted the descriptive statistics as well as the panel unit root tests by Levine, Lin and Chu (2002) and Im, Pesaran and Shin (2003). Furthermore, post panel estimation technique such as the normality test was also conducted.

Data Analysis and Interpretation

Descriptive Statistics and Panel Unit Root Test

From the descriptive statistics on Table 1, it is observed that the mean values of government spending (GS), trade openness (TOP) and financial openness (FOP) are 19.47, 88.90 and 4.70 respectively while the mean values for per capita income (PCI) and country size (CS) are 508279.4 and 19977289 respectively. The skewness statistics showed that all the variables positively skewed while the kurtosis statistics showed that all the variables (trade openness, financial openness, per capita income and country size) except government size (GS) are leptokurtic indicating that the distributions are peaked relative to normal distribution.

Government expenditure is mesokurtic indicating that the variable is normally distributed. The Jarque-Bera statistic rejected the null hypothesis of normal distribution for all the variables (government size, trade openness, financial openness, per capita income and country size) at five percent level of significance. In addition to the descriptive statistics, the panel unit root test was conducted using Levin et al. (2002) and Im et al. (2003) tests. The results are presented on Table 2.

Table 1. Descriptive Statistic

Statistics/Variables	**GS**	**TOP**	**FOP**	**PCI**	**CS**
Mean	19.466	88.895	4.699	508279.4	19977289
Skewness	0.679	1.572	4.189	4.285	3.154
Kurtosis	3.002	7.406	27.649	21.352	13.151
Jarque-Bera	30.619	487.020	11267.53	6820.25	2374.669
Probability	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	399	399	399	399	399

Source: Research finding, using Eviews 9.

The panel unit root estimates using Levin et al. (2002) test shows that all government spending (GS), per capita income (LPCI) and country size (LCS) were integrated of order zero, implying that the variables were I(0) series while trade openness (TOP) and financial openness (FOP) were integrated of order one, implying that the variables are I(1) series. With respect to Im et al. (2003) test, it was observed that government spending (GS), financial openness and country size (LCS) were integrated of order zero while trade openness (TOP) and per capita income (PCI) were integrated of order one.

Table 2. Panel Unit Root Test

	Levin et al. (2002)					**Im et al. (2003)**				
	Level		**First Diff**			**Level**		**First Diff**		
Variabls	Stat.	P-val	Stat.	P-val	Status	Stat.	P-val.	Stat	P-val	Status
GS	-2.834	0.002*	-	-	I(0)	-3.067	0.001*	-	-	I(0)
TOP	-1.192	0.117	-6.490	0.00*	I(1)	-0.670	0.251	-7.751	0.00*	I(1)
FOP	-1.526	0.064	-5.848	0.00*	I(1)	-3.039	0.001*			I(0)
LPCI	-3.764	0.000*	-	-	I(0)	0.419	0.663	-3.831	0.000*	I(1)
LCS	-21.8*	0.000*	-	-	I(0)	-8.557	0.00*	-	-	I(0)

Source: Research finding, using Eviews 9.

Regression Estimate

Empirical estimate on column 1 from Table 3 focused on the compensated hypothesis which borders on the link between trade openness and government size. It was observed from the table that trade openness has positive impact on government size on Sub-Saharan African countries, however, the impact was insignificant. The positive link between trade openness and government size may be due to the fact that over the years, the government have been increasing its expenditure in the provision of growth enhancing facilities in order to utilize the benefits of the open economics. The finding is in contrast to Olawole and Adebayo (2017) and Shahbaz et al. (2010).

Table 3. Panel Fixed Effect Estimate

	1	2	3
Variables	**Coefficients**	**Coefficients**	**Coefficients**
GS(-1)	0.506 (16.068)	0.4808 (26.808)	0.5088 (13.749)
PCI	-0.000 (-0.042)	-0.000 (-0.589)	-0.000 (-0.287)
LCS	5.415 (2.612)*	5.514 (3.779)*	6.057 (2.466)**
TOP	0.013 (0.840)	-	0.0108 (0.5439)
FOP	-	0.029 (2.400)**	0.0192 (0.9994)
J-statistic.(Prob.)	16.260 (0.5055)	17.019 (0.4531)	1.3631 (0.506)
Arellano-Bond test AR(1): m-Statistic (Prob.)	NA	NA	NA
Arellano-Bond test AR(2): m-Statistic (Prob.)	-0.0258 (0.9794)	-0.1835 (0.8544)	-0.0800 (0.9363)

Source: Research finding, using Eviews 9.
Note: Values in bracket () are the t-Statistics. Column 1 is on the link between government size and trade openness; Column 2 is on the link between government size and financial openness; Column 3 is on the role of financial openness on the link between government size and trade openness.

It was observed that per capita income had insignificant impact on government size while country size had positive and significant impact on government size. The positive link between country size and government size is justified by the fact that increase in a country population leads to increase demand of more public goods thereby increasing government expenditures on the provisions of public goods for her citizenry. As noted in above, Sub-Saharan African countries have continued to experience population increase which may have accounted for the increase in government expenditure thereby causing a positive link between country size (defined by log of population) and government expenditure.

With respect to the efficient hypothesis - that is, the link between financial openness and government size (which is presented by column 2 on Table 3), it was observed that financial openness had positive and significant impact on government size which is in line with Kimakova (2009), and Bretschger and Hettich (2002) but in contrast with Rodrik (1997), Shahbaz et al. (2010), Nahidi et al. (2013), Olawole and Adebayo (2017). Also, per capita income had insignificant impact on government size while country size maintained it positive and significant relationship with government size. The regression estimate on model 3 focused on the Liberati (2007) hypothesis that financial openness undermines the relationship between trade openness and government size. The estimate from column 3, Table 3 showed that financial openness does not affect the relationship between trade openness and government size. This is because in spite of the inclusion of financial openness, the impact of trade openness on government size remained insignificant. This result is in contrast to the claim by Dixit (2014) and Liberati (2007).

The implication of the above result is that government expenditure is not influenced by trade openness. The insignificant relationship between trade openness and government size can be attributed largely to the underdeveloped nature of the real and factor markets which has limited the movement of productive factors from the shores of the African continent to the developed countries. The positive and significant relationship between financial openness and government size can be attributed to the increase in the flow of foreign capital (such as foreign direct investment) into sub-Saharan African continent. In addition to the above, the model estimates presented on Table 3 showed that Jarque-Bera statistics of the normality test that the null hypothesis is not rejected indicating that the residuals were normally distributed. More so, the robustness of the system GMM estimate is shown by the second-order Arellano-Bond Serial Correlation test of the first-differenced residuals. The results of the tests indicate

that the null hypothesis of no second-order correlation failed to be rejected, supporting the validity of the system GMM estimate.

Conclusion

This study examined the relationship between openness and government size in Sub-Saharan African countries. Due to data availability, the study covered twenty-one African countries over the period 2001 to 2019. Specifically, the study examined the validity of the compensation and efficiency hypotheses with respect to Sub-Saharan African countries. The study also examined the role of financial openness in the link between trade openness and government size. Using system generalized method of moment methods, the results of the study did not support the validity of both the compensation and the efficiency hypotheses. Also, the results of study showed that financial openness does not influence the relationship between trade openness and government size in Sub-Saharan African countries. Thus, the study concluded that the compensated and the efficiency hypotheses do not hold with respect to Sub-Saharan African countries; implying that government size is not determined by trade and financial openness in Sub-Saharan African countries.

References

[1] Agyemang, E. (2014). *Economic Growth, Income Inequality and Poverty Reduction: A Regional Comparative Analysis* (Unpublished Master's Thesis, University of Lethbridge, Canada).

[2] Aregbeyen, O., & Ibrahim, T. M. (2014). Trade Openness-Government Size Nexus: Compensation Hypothesis Considered for Nigeria. *Journal of Reviews on Global Economics, 39*, 364-372.

[3] Arellano, M., & Bond, S. (1991). Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. *The Review of Economic Studies, 58*, 277-297.

[4] Arellano, M., & Bover, O. (1995). Another Look at the Instrumental Variable Estimation of Error-Components Models. *Journal of Econometrics, 68*, 29-51.

[5] Aydogus, I., & Topcu. M. (2013). An Investigation of Co-Integration and Causality between Trade Openness and Government Size in Turkey. *International Journal of Economics and Financial Issues, 3*(2), 319-323.

[6] Benarroch, M., & Pandey, M. (2008). Trade Openness and Government Size. *Economics Letters, 101*, 157-159.

[7] Blundell, R., & Bond, S. (1998). Initial Conditions and Moment Restrictions in Dynamic Panel Data Models. *Journal of Econometrics, 87*, 115-143.

[8] Bretschger, L., & Hettich, F. (2002). Globalisation, Capital Mobility and Tax Competition: Theory and Evidence for OECD Countries. *European Journal of Political Economy, 18*(4), 695-716.

[9] De Mendonca, H. F., & De Oliveira, A. J. (2019). Openness and Government Size: A New Empirical Assessment. *Economic Bulletin, 39*(2), 982-995.

[10] 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.

[11] Farhad, M., & Jetter, M. (2019). On the Relationship between Trade Openness and Government Size. *CESifo Working Paper, 7832*, Retrieved from https://ssrn.com/abstract=3467965

[12] Fosu, K. A. (2017). Growth, Inequality and Poverty Reduction in Developing Countries: Recent Global Evidence. *Research in Economics, 71*(2), 306-336.

[13] Galí, J. (1994). Government Size and Macroeconomic Stability. *European Economic Review, 38*, 117–132.

[14] Garrett, G. (1995). Capital Mobility, Trade and the Domestic Politics of Economic Policy. *International Organisation, 49*(4), 657-687.
[15] Holtz-Eakin, D., Newey, W., & Rosen, H. S. (1988). Estimating Vector Auto-Regressions with Panel Data. *Econometrica, 56*(6), 1371-1395.
[16] Im, S. K., Pesaran, H. M., & Shin. Y. (2003). Testing Unit Roots in Heterogeneous Panels. *Journal of Econometrics, 115*, 53-74.
[17] Katumba, C. O. (2013). *Globalization and Government Size: Adopting the Mean Group Estimator Model* (Unpublished Master's Thesis). KDI School of Public Policy and Management, South Korea.
[18] Kavya, T. B., & Shijin, S. (2020). Economic Development, Financial Development, and Income Inequality Nexus. *Borsa Istanbul Review, 20*(1), 80-93.
[19] Kimakova, A. (2009). Government Size and Openness Revisited: The Case of Financial Globalization. *KYKLOS, 62*(3), 394 - 406.
[20] Lamartina, S., & Zaghini. A. (2010). Increasing Public Expenditures: Wagner's Law in OECD Countries. *German Economic Review, 12*(2), 149-164.
[21] Levin, A., Lin, C. F., & Chu. C. S. (2002). Unit Root Test in Panel Data: Asymptotic and Finite Sample Properties. *Journal of Econometrics, 108*(1), 1-24.
[22] Liberati, P. (2007). Trade Openness, Capital Openness and Government Size. *Journal of Public Policy, 27*, 215-247.
[23] Maluleke, G. (2017). The Determinants of Government Expenditure: Analysis of the Empirical Literature from 1995 to 2016. *Acta Univetrsitatis Danubius, 13*(2), 212-219.
[24] Masson, R. P. (2000). Fiscal Policy and Growth in the Context of European Integration. *IMF, Working Paper, 133*, Retrieved from http://www.imf.org/external/pubs/cat/longres.aspx?sk=3700
[25] Mohanty, S. M., & Zampoli, F. (2009). Government Size and Macroeconomic Stability. *BIS Quarterly Review*, Retrieved from http://www.bis.org/publ/qtrpdf/r_qt0912g.pdf
[26] Nahidi, M. M., Parvizkhanlou, K. J., & Arash, B. K. (2013). An Impact of Trade and Financial-Openness on Government Size: A Case Study for ECO. *International Journal of Advanced Studies in Humanities and Social Science, 1*(8), 1013-1017.
[27] Nwaka, D. I., & Onifade, S. T. (2015). Government Size, Openness and Income Risk Nexus: New Evidence from Some African Countries. *African Governance Development Institute Working Paper, WP/15/056*, Retrieved from https://EconPapers.repec.org/RePEc:agd:wpaper:15/056
[28] Olawole, K., & Adebayo, T. (2017). Openness and Government Size: The Compensation and Efficiency Hypotheses Considered for Nigeria. *MPRA Paper*, Retrieved from https://mpra.ub.uni-muenchen.de/82022/1/MPRA_paper_82022.pdf
[29] Parvizkhanlou, K. J. (2014). An Impact of Trade and Financial Openness on Government Size: A Case Study for ECO. *IRC'S International Journal of Multidisciplinary Research in Social & Management Sciences, 2*(2), 1-4.
[30] Piper, A. T. (2014). The Benefits, Challenges and Insights of a Dynamic Panel Assessment of Life Satisfaction. *MPRA Paper, 59556*, Retrieved from https://mpra.ub.uni.muenchen.de/59556/1/MPRA_paper_59556.pdf
[31] Quinn, D. (1997). The Correlates of Change in International Financial Regulation. *American Political Science Review, 91*, 531-552.
[32] Rodrik, D. (1998). Why Do More Open Economics Have Bigger Governments? *Journal of Political Economy, 106*(5), 997-1032.
[33] Roodman, D. (2009). How to Do Xtabond2: An Introduction to Difference and System GMM in Stata. *The Stata Journal, 9*(1), 86-136.
[34] Schulze, G., & Ursprung. H. W. (1999). Globalization of the Economy and the Nation State. *The World Economy, 22*, 295-352.
[35] Shahbaz, H. M, Hafeez, R. U., & Amir, H. (2010). The Impact of Trade and Financial Openness on Government Size: A Case Study of Pakistan. *Journal of Quality and Technology, VI*(1), 105-118.
[36] Swank, D. (2002). *Global Capital, Political Institutions, and Policy Change in Developed Welfare States*. Cambridge: Cambridge University Press.

[37] Turan, T., & Karakas, M. (2016). The Effect of Trade Openness and Income on the Size of a Government. *Transylvanian Review of Administrative Sciences*, *47*(5), 164-178.
[38] Xavier, D., Jean, P-F., & Andre, S. (2008). Government Size and Output Volatility: Should We Forsake Automatic Stabilization? *IMF Working Paper*, *WP/08/122*, Retrieved from http://www.imf.org/external/pubs/cat/longres.aspx?sk=21947