

Economic Globalization and Public Debt in Nigeria

Moshood Kolawole Alabi ^{*1}, Adebayo Mohammed Ojuolape ¹, Abdulazeez Bunmi Egbevole¹ & Olanrewaju Adetunji Sanjo²

¹ Department of Economics, University of Ilorin, Nigeria.

² Department of Sociology, University of Ilorin, Nigeria.

*Correspondence Email: alabi.mk@unilorin.edu.ng

Abstract

This study investigated the relationship between globalization and public debt in Nigeria. With data from 1981 to 2022, Fully Modified OLS (FMOLS), Dynamic OLS (DOLS) and Canonical Cointegration Regression (CCR) estimation techniques were employed. Three different models were estimated. Across all three models, the results showed that there is a significant positive relationship between public debt and economic globalization in Nigeria. A one unit increase in globalization translates to a 26% jump in Nigeria's public debt. The implication of this finding is that while Nigeria embraces global economic integration, a lot of caution must be observed because it comes at a huge cost to the nation. The cost to Nigeria is a high public debt burden. Already, the country is struggling to ensure that her public debts are sustainable and so we must not add too much pressure to our debt burden. This study recommends that the Nigerian government must undertake careful analysis of the various trade and financial globalization partnerships and agreements before signing any. It is important that we strike a balance between integrating into the global economy and maintaining sustainable public debt levels. The consequence of not doing this is that all gains made in the name of globalization could be eroded by high public debt repayment.

Keywords: Globalization, Public debt, Debt burden, Trade openness, Financial liberalization

JEL Classification: H69, F60.

1. Introduction

Public debt is majorly determined by macroeconomic, institutional, socioeconomic and structural factors (Mothibi & Mncayi, 2019). According to Holtfrerich et al. (2016), it is still not clear if production and economic flows which comes with economic integration affects public debt. However, theory suggests that economic globalization influences public debt. The reason for this is because economies that are open are often subjected to external vulnerabilities and volatilities which adversely affect the domestic market, the local firms and the citizens. Governments move in to checkmate this ugly trend by increasing their expenditure and this is usually achieved through public debt (Bataka, 2023). Globalisation is a controversial phenomenon and it has sparked a new debate on whether economic

globalization is indeed worth the uncertainties it comes with, especially in developing countries that do not benefit from globalization to the same extent as industrialized developed countries.

A look at Nigeria's public debt stock reveals that it has been on the rise consistently from 1981 to 2004. In 2004, our external debt stock was \$36 billion but with the debt relief we got from the Paris Club in 2006, it dropped to \$3 billion while our domestic debt stood at N1 trillion. Gradually, the debts began to rise again. In 2018, our total public debt was \$73.21 billion amounting to N22.38 trillion. By 2022 it was N40.91 trillion and, it further rose to N87.12 trillion (CBN, 2023). What could be responsible for this trend? There are factors which have been put forward based on economic theory and empirical evidence and they include oil price, domestic savings, fiscal deficits (Adamu, 2019) lagged values of fiscal deficits, gross domestic product (Moses, 2019). This study would like to know if globalization could be added.

The KOF Globalization index is a relatively new index used to capture the level of integration. The value ranges from 0 to 100 with 100 being the highest. The globalization index for Nigeria revealed an upward trend from a value of 29 in 1970 to 41 in 1980. Between 1980 and 1989, it fluctuated between 36 and 39. In 1990 it was 39 and then it kept rising until it reached 56 in 2020 (KOF, 2023). It can be deduced that, on the average, there is an upward trend in both public debt and economic globalization. No meaningful conclusions can be drawn from this yet until empirical investigations have been carried out.

It is observed that the Nigerian government is opening up the economy and actively encouraging private sector participation. Government is trying to provide an enabling and conducive environment for private sector (both local and foreign) led growth. In line with Nigerian policy on foreign investments and globalization, it is believed that this will help to create more employment, improve our productive and technological capacity, and eventually boost our export. Furthermore, liberalization and deregulation of the exchange rate all attest to the fact that Nigeria is indeed taking steps to integrate herself into the global economy (Feridun et al., 2006). Despite all these efforts, the nation is still plagued by low production levels, high unemployment, and unfavourable balance of payment. More importantly, our public debt stock is high and it keeps rising. Does Globalization lead to a rise in public debt? Are the supposed gains from globalization really worth the debt burden the nation faces if truly it is one of the factors affecting debt in Nigeria? These are questions which this study seeks to answer.

Studies have not specifically assessed the impact of globalization on Nigeria's public debt using the KOF globalization index. Many studies centered on the impact of globalization on economic development in Nigeria (Oluwagbade & Ibidapo, 2024), the impact of globalization on national policy (Olaribigbe & Hanh, 2024), on educational development (Ukulor, 2024) on capital formation (Uzoehina et al., 2024). This study comes to fill that gap. The primary objective of this study is to investigate the impact of economic globalization on public debt in Nigeria. The rest of the paper is organized as follows: after the introduction in section 1, section 2 takes a look at the literature review while section 3 discusses the methodology. In section 4, we present our findings and section 5 concludes the paper.

2. Literature Review

Conceptual and Theoretical Framework

Globalization can be defined as the way by which networks and connections are made between actors either within a continent or from one continent to another through trade flow, FDI, capital flow, portfolio investment and information (Gygli et al., 2019). With economic globalization, we have national economies becoming integrated and technology diffuses.

There are two theories that try to explain how globalization affects the host or receiving country. We have the efficiency hypothesis and the compensation hypothesis. The efficiency hypothesis, propounded by Cerny (1994, 1995) posits that when production moves between countries and in such countries, taxes are not too high and not too low, employment laws are not rigid, the government would be forced to reduce her corporate tax and deregulate the job market so that they can attract others to their country (de Jongh, 2020). When this happens, government is induced to cut back on her spending but at the same time, making sure they provide essential public goods and services (Porto et al., 2016). Studies such as Kaufman and Segura-Ubiergo (2001) and de Jongh (2020) found the efficiency hypothesis to be valid. Meanwhile, the compensation hypothesis, propounded by Rodrik (1997, 1998), posits that globalization will bring about increased competition in the domestic economy and this would eventually create a bigger public sector in such open nations. This is because government would try to compensate its people and fulfill her social obligations to those who may have been adversely affected by globalization (Rodrik, 1998; Sener et al., 2015). Eventually, government is left with no other option than to take more loans thereby increasing the debt stock (Lammers et al., 2018).

Empirical Review

In assessing the link between economic globalization and public debt, different studies have used different variables to capture globalization. While some have used trade openness and financial liberalization (Kim et al. 2018), Foreign Direct Investment (Colak & Ozkaya, 2020) others have used KOF globalization index (Baris, 2019). The results across these studies (whether time series or panel data studies) are classified into three: a positive relationship, a negative relationship and no relationship.

Bataka (2023) investigated the impact of economic globalization on public debt for sub-saharan Africa. His results suggested that in the short run, economic globalization raises public debt but in the long run, it leads to a reduction. Furthermore, when economic globalization was disaggregated into financial globalization and trade globalization, it was observed that the former gave rise to public debt in both the short and long run. However, trade globalization caused a rise in public debt in the short run and a fall in public debt in the long run. Waheed (2017) examined the determinants of foreign debt in oil exporting and oil importing countries. He used foreign direct investment and trade deficit as proxies for globalization. Results showed that an increase in globalization leads to an increase in foreign debt for the oil importing nations but it leads to a decrease of foreign debt in the oil exporting nations. Kim et al. (2018) used financial liberalization and trade openness and found out that both variables positively affect public debt for developed and developing countries.

What kind of relationship exists between public debt and economic globalization in South Africa? Moeng and de Jongh (2023) sought to find out. They observed that higher levels of economic globalization are associated with higher levels of public debt. In addition, a unidirectional causality was detected running from economic globalization to public debt. For Malaysia, Pyeman et al. (2016) analyzed the determinants of foreign debt. The study made use of exports and foreign direct investment as proxies for globalization. What they found out was that an increase in export leads to an increase in foreign debt but a rise in foreign direct investment leads to a fall in foreign debt for Malaysia. For Pakistan, Zafar and Butt (2008) sought to find out the relationship between trade liberalization and foreign debt. Using Autoregressive distributed lag model (ARDL), they found a positive long run linkage. In a study by Colak and Ozkaya (2020) on transition economies, it was observed that economic globalization gave rise to an upward movement in public debt. On the contrary, the findings of Sinha et al (2011) for a panel study involving 31 countries showed that a decline in FDI leads to a fall in public debt of middle income countries. Also, Pirtea and Nicolescu (2013) observed similar findings in their study of the determinants of public debt in Romania. They used FDI and Trade openness as proxies for globalization. It was observed that as FDI goes up, public debt comes down. Are the findings of Pirtea and Nicolescu (2013) peculiar to a single country or are the results applicable to a group of countries? Swamy (2015) decided to find out. He looked at the factors that determine public debt using panel data for a group of countries. Their findings revealed that an upward movement in FDI causes a drop in government debt but a rise in trade openness is linked to an increase in government debt. Years later, Swamy (2020) extended his research further by expanding the number of countries sampled to 252. These countries were selected from low income, middle income and high income countries, BRICS, highly indebted poor countries, and OECD countries. His findings indicated that government debt rises with an increase in trade openness but it falls with an increase in foreign direct investment.

The review of the literature has shown that the impact of globalization on public debt is not conclusive. However, this study adds to the body of knowledge by making use of KOF globalization index and using more recent econometric techniques.

3. Methodology

Following Bataka (2023) and Moeng and de Jongh (2023), the model for this study is specified as:

$$PD = F(EG, IR, GD, GE, IF, ER, PG) \dots\dots\dots 1$$

Taking the natural logarithm of public debt, LnPD.

$$\text{LnPD} = \beta_0 + \beta_1 \text{EG} + \beta_2 \text{GD} + \beta_3 \text{IR} + \beta_4 \text{GE} + \beta_5 \text{IR} + \beta_6 \text{RG} + \beta_7 \text{IF} + \varepsilon_t \dots\dots\dots 2$$

Where LnPD represents the natural logarithm of public debt in billions of naira, EG represents economic globalization, an index which ranges from 0-100, 100 indicating the highest level of economic globalization. IR represents interest rate in percentage, RG represents real Gross domestic product at 2010 constant basic prices in naira while GE represents general Government expenditure in billions of naira. IF represents annual inflation rate in percentage, ER represents exchange rate in percentage and PG represents population growth in

percentage. Our variable of interest is economic globalization; however control variables included were based on the literature that discuss the determinants of public debt.

All data used were sourced from the World Bank's Development Indicators, the Central Bank of Nigeria's (CBN) Statistical bulletin and the KOF Swiss Economic Institute. The period investigated was from 1981 – 2022 and the reason was due to availability of data.

Table 1: Definition and sources of data

Variable	Represented as	Unit of Measurement	Source of data
<i>Total Public Debt.</i>	PD	₦ Billions of naira It combines both external and domestic debt of the general government.	Central Bank of Nigeria statistical bulletin
<i>Economic Globalization.</i>	EG	Index The KOF globalization index is calculated yearly. It has a scale of from 1 – 100 with 100 being the highest. It has sub-indices such as trade globalization and financial globalization, each getting a weight of 50%.	KOF Swiss Economic Institute
<i>General government expenditure</i>	GE	₦ Billions of naira It includes both capital and recurrent expenditure.	Central Bank of Nigeria statistical bulletin
<i>Gross domestic product</i>	GD	₦ Billions of naira The real gross domestic product is computed using 2010 constant basic prices in naira.	Central Bank of Nigeria statistical bulletin
<i>Exchange rate</i>	ER	Percentage ₦/\$ exchange	Central Bank of Nigeria statistical bulletin
<i>Inflation rate</i>	IF	Percentage Changes in the prices of goods and services	Central Bank of Nigeria statistical bulletin
<i>Interest rate</i>	IR	Percentage The monetary policy rate	Central Bank of Nigeria statistical bulletin
<i>Population Growth</i>	PG	Percentage Changes in the population.	World Bank Development Indicators

Source: Authors' compilation, 2024.

Unit root tests were conducted to ascertain stationarity of the variables. In Table 2, we have the results of the unit root test.

Table 2: Result of Phillips-Perron Unit root test

Variables	PP t-statistic at first difference	Decision
LnPD	-4.636330***	I(1)
EG	-5.525252***	I(1)
GE	-3.558040**	I(1)
GD	-3.197333**	I(1)
ER	-4.130114***	I(1)
IF	-10.66381***	I(1)
IR	-7.711225***	I(1)
PG	-5.439107**	I(1)

Source: Authors' computation, 2024. ***, ** and * represent significance levels at 1%, 5% and 10% respectively

The results indicated that all variables became stationary after taking first difference. Since it is a single equation model, we decided to test for cointegration using the Engle-Granger test. It was observed that the variables were cointegrated. Following the result of the cointegration test, the study employed three different estimation techniques namely: Fully modified OLS (FMOLS), Dynamic OLS (DOLS) and Canonical Cointegration Regression (CCR). The reason for this was to ensure the robustness of the results.

4. Results

This section presents an analysis of the result. The study begin with a descriptive analysis of the variables. From table 3, it is observed that maximum public debt was N40 trillion naira, the minimum was N13 billion naira while the average public debt was N6 trillion naira. Indeed Nigeria public debt is on the rise. Looking at it score on the economic globalization index, the maximum score is 57, and the minimum is 35 over the years covered, while the mean score is 47. This score suggests that there is room for improvement.

Table 3: Descriptive statistics of the Variables

Variables	Unit	Max	Min	Mean	SD	Obs
PD	₦Billion	40912.62	13.52380	6740.283	9816.273	42
EG	Index	57.00399	35.94188	47.62359	7.422381	42
ER	₦/\$US	425.9811	0.610025	115.7410	119.1411	42
GD	₦Billion	74639.47	16048.31	38589.74	20854.23	42
GE	₦Billion	24431.21	9.636500	3657.582	5900.242	42
IF	%	72.83550	5.388008	18.94669	16.45496	42
IR	%	25.64475	6.000000	12.59503	3.972044	42
PG	%	3.002988	2.380007	2.612335	0.126263	42

Source: Author's computation, 2024. Max stands for maximum, Min stands for minimum and SD stands for standard deviation and Obs. is number of observations

Table 4 presents the various levels of correlation amongst the variables. Results show that there is a strong positive association between public debt and economic globalization. This means that a rise in economic globalization is associated with a rise in public debt. Also, a strong positive association was observed between economic globalization and Nigeria's real gross domestic market. Inflation has a weak negative association with globalization. This means that higher levels of inflation are associated with lower levels of globalization. Even

though some independent variables had high correlations, post diagnostic test showed that the model did not suffer multicollinearity.

Table 4: Correlation coefficient matrix of the variables

Variables	EG	PD	ER	GD	GE	IF	IR	PG
EG	1.00							
PD	0.63***	1.00						
ER	0.82***	0.94***	1.00					
GD	0.89***	0.81***	0.91***	1.00				
GE	0.62***	0.97***	0.91***	0.80***	1.00			
IF	-0.30**	-0.18	-0.29*	-0.32**	-0.18	1.00		
IR	-0.03	0.06	-0.00	-0.05	0.00	0.43***	1.00	
PG	-0.10	-0.51***	-0.38**	-0.23	-0.47***	-0.18	-0.32**	1.00

Source: Authors' computation, 2024. ***, ** and * represent significance levels at 1%, 5% and 10% respectively.

The study discuss the results of the FMOLS, CCR and DOLS regressions. In table 5, it was observe that across all 3 models, economic globalization has a positive significant impact on public debt in Nigeria. A one unit change in economic globalization will lead to a 26% rise in public debt.

Table 5: Results of the FMOLS, CCR and DOLS regressions

	FMOLS model 1	CCR model 2	DOLS model 3
Variables	Coefficient	Coefficient	Coefficient
EG	0.262*** (0.032)	0.265*** (0.036)	0.240*** (0.073)
IR	0.082*** (0.024)	0.091*** (0.030)	0.063 (0.048)
ER	0.009*** (0.003)	0.010** (0.004)	0.007 (0.008)
GE	-0.00007 (0.00004)	-0.0001** (0.00005)	-0.00008 (0.00009)
IF	0.0005 (0.006)	-0.002 (0.008)	-0.001 (0.018)
GD	-0.00003** (0.00001)	-0.00004** (0.00001)	-0.00004 (0.00002)
PG	-4.181*** (1.039)	-4.096*** (0.854)	-9.489** (3.302)
Constant	5.464* (2.657)	4.897* (2.484)	20.248* (8.911)
R ²	0.93	0.93	0.99
Observations	41	41	39

Source: Authors' computation, 2024. ***, ** and * represent significance levels at 1%, 5% and 10% respectively. Standard error in parentheses.

This finding is similar to that of Bataka (2023) and Moeng and de Jongh (2023). The implication of this is that our quest for increased level of global integration is continuously increasing our debt stock and consequently adding to our debt burden. Policy makers must be weary of this. Interest rate (IR) and exchange rate both have positive and significant effect on public debt in models 1 and 2 but not significant in model 3. A 1 unit increase in interest rate will give rise to an 8% and 9% increase in economic globalization in models 1 and 2

respectively while a 1 unit increase in exchange rate will lead to 0.9% to 1% jump in globalization. Interestingly, real gross domestic product had a negative and significant impact on public debt in models 1 and 2 but not significant in model 3. This finding is in line with Van Cauwenbergh and Laleman (2018). The implication of this is that as the economy grows, we incur less public debts. Also, population growth rate recorded a negative and significant relationship with public debt in all the 3 models. This means that as the population increases, public debt drops. This is probably due to the fact that a larger population is able to generate more internal revenue, reducing the pressure to source for loan.

5. Conclusion and Recommendations

This study investigated the relationship between globalization and public debt in Nigeria. Using data from 1981 to 2022, Fully Modified OLS (FMOLS), Dynamic OLS (DOLS) and Canonical Cointegration Regression (CCR) estimation techniques were employed. The results showed that there is a significant positive relationship between public debt and economic globalization in Nigeria. The implication of this study's finding is that while Nigeria embraces global economic integration, a lot of caution must be observed because it comes at a huge cost to the nation. The cost to Nigeria is a huge public debt burden. Already, we are struggling to ensure that our public debts are sustainable and so we must not add too much pressure to our debt burden. This study recommends that the Nigerian government must undertake careful analysis of the various trade and financial globalization partnerships and agreements before signing any. It is important that we strike a balance between integrating into the global economy and maintaining sustainable public debt levels. The consequence of not doing this is that all gains made in the name of globalization could be eroded by high public debt repayment.

References

- Adamu, I. M. (2019). Re-visiting the Drivers for increasing External Debt. *Journal of Contemporary Issues and Thought*, 9, 40-53.
- Bataka, H. (2023). Economic globalization and public debt in Sub-Saharan Africa. *International Journal of Finance and Economics* 28(2), 1756-1771.
- Baris, S. (2019). The impact of globalization on external debts: Evidence from developing countries. In *Global challenges in public finance and international relations* (pp. 23–48). Hershey, PA: IGI Global.
- Bergh, A. (2021). The compensation hypothesis revisited and reversed, *Scandinavian Political Studies*, 44(2), 140-147.
- Central Bank of Nigeria (2022) Statistical Bulletin.
- Central Bank of Nigeria (2023) Statistical Bulletin.
- Cerny P. G. (1994). The dynamics of financial globalization: Technology, market structure, and policy response. *Policy Sciences*, 27(4), 319-342.
- Cerny P. G. (1995). Globalization and the changing logic of collective action. *International Organization*, 49(4), 595-625.
- Colak, O., & Ozkaya, M. H. (2020). The nexus between external debts and military expenditures for the selected transition economies: A panel threshold regression approach. *Defence and Peace Economics*, 1–17.
- de Jongh, J. (2020), Economic globalisation and government size: testing the compensation

- hypothesis in South Africa's public sector, *International Journal of Business and Management Studies*, 12(1), 66-83.
- Feridun, M. O., Janet O. & Folorunso, B. A. (2006). Analyzing the Impact of Globalization on Economic Development in developing economies: an application of Error Correction Modelling (ECM) to Nigeria. *Applied Econometrics and International Development*, 6(3), 173-182.
- Gygli, S., Haelg, F., Potrafke, N., & Sturm, J. E. (2019). The KOF globalization index – Revisited. *The Review of International Organizations*, 14(3), 543–574.
- Holtfrerich, C. Feld, L., Heun, W., Illing, G., Kirchgassner, G., Kocka, J., Schularick, M., Streeck, W., Wagschal, U., Walter, S., von Weizsacker, C. C. (2016). Government debt: causes, effects and limits. Berlin: Berlin-Brandenburg Academy of Sciences and Humanities. 1-76.
- Kaufman, R.R., Segura-Ubiergo, A. (2001). Globalization, domestic politics, and social spending in Latin America: a time-series cross-section analysis, *World Politics*, 53(4), 553-587.
- Kim, D. H., Suen, Y. B., Lin, S. C., & Hsieh, J. (2018). Government size, government debt and globalization. *Applied Economics*, 50(25), 2792–2803.
- KOF (2023). The KOF Globalisation Index. KOF Economic research Institute. Available online at <https://www.kof.ethz.ch>
- Lammers, I., van Gerven-Haanpaa, M.M., Treib, O. (2018). Efficiency or compensation? The global economic crisis and the development of the European Union's social policy, *Global Social Policy*, 18(3), 304-322.
- Moeng, M. & de Jongh, J. (2023). Economic Globalisation and Public Debt: What Implications Does an Integrated South African Economy Hold for Fiscal Policymakers? *Forum Scientiae Oeconomia*, 11(4), 35-62.
- Moses, A. A. (2019). Determinants and Analysis of Domestic Debt in Nigeria: 1970-2015. *Acta Universitatis Danubius:Oeconomica* 15(2), 275-287.
- Mothibi, L., Mncayi, P. (2019), Investigating the key drivers of government debt in South Africa: a post-apartheid analysis, *International Journal Of eBusiness and eGovernment Studies*, 11(1), 16-33.
- Olaribigbe, O. D. & Hanh, N. T. H. (2024). The Impact of Globalization on National policy in Africa (Nigeria as a case study). *GSI*, 12(6), 634-650.
- Oluwagbade, E. O. & Ibidapo, C. O. K. (2024). Impact of Globalization on the Economic Development of Nigeria. *International Journal of Development and Economic Sustainability*, 12(1), 26-51.
- Pirtea, M. G., & Nicolescu, A. C. (2013). An empirical study on public debt's determinants: Evidence from Romania. *Transylvanian Review of Administrative Sciences*, 9(38), 144–157.
- 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.
- Pyeman, J., Noor, N. H. H. M., Mohamad, W. M. F. W., & Yahya, A. A. (2016). Factors affecting external debt in Malaysia: An empirical investigation. In Proceedings of the 1st

- AAGBS international conference on business management 2014 (AiCoBM 2014) (pp. 449–455). Singapore: Springer.
- Rodrik, D. (1997). Has Globalization Gone Too Far? Washington, DC: *Institute for International Economics*.
- Rodrik, D. (1998). Why do more open economies have bigger governments? *Journal of Political Economy*, 106(5), 997–1032.
- Sener, S., Bayrakdar, S., Hacioglu, 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.
- Sinha, P., Arora, V., & Bansal, V. (2011). Determinants of public debt for middle income and high income group countries using panel data regression. Munich, Germany: University Library of Munich.
- Swamy, V. (2015). Government debt and its macroeconomic determinants – An empirical investigation. Germany: University Library of Munich. Available at SSRN 2601875.
- Swamy, V. (2020). Debt and growth: Decomposing the cause and effect relationship. *International Journal of Finance & Economics*, 25(2), 141–156.
- Ukolor, D. C. (2024). The Impact of Globalization on educational development of Nigeria. *BW Academic Journal*, 10(1), 100-109.
- Uzoehina, B. I., Okafor, P. C., Ezenwobi, N. F., Ekwoh, G. A., Okaforocha, C. M. & Edeh, N. J. (2024). Globalization and capital formation in Nigeria. *Forum for Economic and Financial Studies*, 2(2), 1133.
- Van Cauwenbergh, L., & Laleman, J.P. (2018). *Rapid public debt build-up in sub-Saharan Africa*. The Public Debt Management Network [Online]. Retrieved from: <https://www.credendo.com/country-news/rapid-public-debtbuild-sub-saharan-africa> (accessed 24 October, 2024).
- Waheed, A. (2017). Determinants of external debt: A panel data analysis for oil & gas exporting and importing countries. *International Journal of Economics and Financial Issues*, 7 (1), 234–240.
- World Bank. (2023), World development indicators, Retrieved from: <https://databank.worldbank.org/source/world-development-indicators> (accessed 10 October 2024).
- Zafar, S. & Butt, M. S. (2008). Impact of trade liberalization on external debt burden: econometric evidence from Pakistan, MPRA working paper no. 9548, Munich: University Library of Munich.