

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**EXTERNAL DEBT, CORRUPTION, AND ECONOMIC
GROWTH IN SELECTED FIVE SUB-SAHARAN
AFRICAN COUNTRIES**



SHITTU WALIU OLAWALE

UUM
Universiti Utara Malaysia

MASTER OF ECONOMICS

UNIVERSITI UTARA MALAYSIA

JUNE, 2017.

**EXTERNAL DEBT, CORRUPTION, AND ECONOMIC GROWTH IN
SELECTED FIVE SUB-SAHARAN AFRICAN COUNTRIES**

BY

SHITTU WALIU OLAWALE



UUM
Universiti Utara Malaysia

Thesis submitted to

Othman Yeop Abdullah Graduate School of Business,

in Partial Fulfilment of the Requirements for Master Degree in Economics



**Pusat Pengajian Ekonomi,
Kewangan dan Perbankan**

SCHOOL OF ECONOMICS, FINANCE, AND BANKING

Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PENYELIDIKAN
(*Certification of Research Paper*)

Saya, mengaku bertandatangan, memperakukan bahawa
(*I, the undersigned, certified that*)

SHITTU WALIU OLAWALE (820058)

Calon untuk Ijazah Sarjana
(*Candidate for the degree of*)

MASTER OF ECONOMICS

telah mengemukakan kertas penyelidikan yang bertajuk
(*has presented his/her research paper of the following title*)

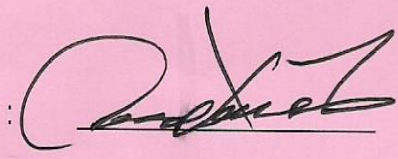
**EXTERNAL DEBT CORRUPTION AND ECONOMIC GROWTH IN SELECTED FIVE SUB-SAHARAN
AFRICAN COUNTRIES**

Seperti yang tercatat di muka surat tajuk dan kulit kertas penyelidikan
(*as it appears on the title page and front cover of the research paper*)

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu
dengan memuaskan.

(*that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered
by the dissertation.*)

Nama Penyelia : **Prof. Madya Dr. Sallahuddin Hassan**
(Name of Supervisor)

Tandatangan : 
(Signature)

Tarikh : **19 Jun 2017**
(Date)

PERMISSION TO USE

In presenting this research in partial fulfilment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the University library, Perpustakaan Sultanah Bahiyah, may make it freely available for inspections. I further agree that permission for copying this research paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor, or the Dean, Research and Innovation, College of Business, Universiti Utara Malaysia. It is understood that any copying or publication or use of this research paper or parts thereof for financial gain shall not be without written permission. It is also understood that due recognition shall be given to me and to the Universiti Utara Malaysia for any scholarly use, which may be made of any material from my thesis.

Requests for permission to copy or to make other use of materials in this research project, in whole or in part, should be addressed to:



The Dean of Othman Yeop Abdullah Graduate School of Business

College of Business

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

ABSTRACT

External Debt has become a serious issue of concern among the sub-Saharan African countries because of the rising burden of debt servicing. The main objective of this study is to examine the impact of external debt and corruption on economic growth of the selected five SSA countries from 1990 to 2015, using two-gap and the modified-Solow growth models. Panel Unit Root and Panel Cointegration tests were employed to test for stationarity of the series and the long run relationship respectively. FMOLS estimation technique was then employed to examine the long-run coefficients of the variables of the model, and panel granger causality test, in order to examine the direction of causality among the variables. The results indicate that there is negative relationship between external debt and economic growth, as well bi-directional causality between the two variables. The results also indicate a positive relationship between corruption and economic growth, as well as the existence of no causality between the two variables. The study therefore recommends that the governments should address the menace of the rising debt through the adoption of other sources of capital for investment, such as more openness of the economy for more capital, by easing the restrictions on genuine imports and exports of valuable goods and services. It also suggests that the issue of corruption be tackled head-on, by such penalties that tend to make corruption less attractive.

Keywords: external debt, SSA, corruption, FMOLS, economic growth

ABSTRAK

Hutang luar negara telah menjadi satu isu serius yang membimbangkan di kalangan negara-negara sub-Sahara Afrika kerana peningkatan beban dalam khidmat hutang. Objektif utama kajian ini adalah untuk mengkaji kesan hutang luar negara dan rasuah keatas pertumbuhan ekonomi lima negara SSA yang terpilih dari tahun 1990-2015, dengan menggunakan Model Dua Jurang dan ubahsuai pertumbuhan Solow. Panel Unit Root dan ujian Panel kointegrasi telah digunakan untuk menguji kepegunan siri dan hubungan jangka panjang masing-masing. Teknik anggaran FMOLS juga digunakan untuk mengkaji pekali pemboleh ubah jangka panjang dalam model, dan ujian penyebab Granger panel, untuk memeriksa arah sebab akibat antara pemboleh ubah. Keputusan menunjukkan bahawa terdapat hubungan negatif antara hutang luar negara dan pertumbuhan ekonomi, serta dua arah sebab akibat antara kedua-dua pemboleh ubah. Keputusan juga menunjukkan hubungan yang positif antara rasuah dan pertumbuhan ekonomi, serta kewujudan tiada sebab akibat antara kedua-dua pemboleh ubah. Oleh itu, kajian ini mencadangkan bahawa kerajaan perlu menangani ancaman hutang yang semakin meningkat melalui penggunaan sumber-sumber modal untuk pelaburan, seperti keterbukaan ekonomi untuk menarik lebih modal, dengan melonggarkan sekatan ke atas import dan eksport tulen barangan dan perkhidmatan berharga. Ia juga mencadangkan isu rasuah boleh ditangani secara paksaan, sebagai contoh penalti yang cenderung menjadikan rasuah itu kurang menarik.

Kata kunci: hutang luaran, SSA, rasuah, FMOLS, pertumbuhan ekonomi

ACKNOWLEDGEMENTS

I thank Almighty Allaah ('Azza wa Jalla) who has made my journey through master's studies in UUM a success- Alhamdulillah! My heartfelt gratitude is extended to my supervisor and econometrics Professor, Assoc. Prof. Dr. Sallahuddin Bin Hassan, for his invaluable guidance, precious time, intellectual inputs, comments, suggestions and encouragement throughout the period of my studies. May Allaah bless you more and grant you the best. Aameen.

I am extremely grateful to my parents, Alhaji & Alhaja Shittu Arowojeka, for their ample support, unwavering encouragement; while also setting my paths to sustainable success. May Allaah bless you and grant you al-Jannatul Firdaos. Aameen. I am equally grateful to Mr & Mrs Maaruf Hussein; you deserve more than this, and I pray Allaah reward you abundantly with the best you desire. Lots of thanks to Messrs & Mesdames Tajudeen Tijani, Idiat Shittu, Taofeek Shittu, Rofiat Salaudeen, Medinat Were, and Kafayat Oladoyin. May Allaah bless your families and make you successful.

Equally, I express my sincere gratitude and prayers to Mr & Mrs Lawal, and my dearest Saidat Lawal, for their motivation and support throughout my study period. I extend the words of thanks to all my brothers, colleagues and friends in UUM: Dr Luqman Afolabi, Dr Salau Malik, Hamid Musibau, Atif Nawaz, Yusuf Agboola, Ibraheem Saleh, Putri Khairani, Faida Abdalla Ali; and others. May Allaah grant your wishes. Aameen. I also extend many thanks to UUM for providing enabling environments for studies. I pray to see the University in top world rankings, In Shaa Allaah!

TABLE OF CONTENTS

DESCRIPTION	Page
TITLE	
CERTIFICATION OF RESEARCH PROJECT	ii
PERMISSION TO USE	iii
ABSTRACT	iv
ABSTRAK	v
ACKNOWLEDGEMENT	vi
TABLE OF CONTENT	vii
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS	xii
CHAPTER ONE INTRODUCTION	
1.0 Overview of Sub-Saharan African Countries	1
1.1 Background of the Study	3
1.2 Statement of Problem	14
1.3 Research Questions	15
1.4 Research Objectives	16
1.5 Significance of the Study	16
1.6 Scope of the Study	17
1.7 Organisation of the Study	17
CHAPTER TWO REVIEW OF RELATED LITERATURE	
2.1 Introduction	18
2.2 Review of Theoretical Literature	18
2.2.1 External Debt and Economic Growth	18
2.2.2 Corruption and Economic Growth	23

2.3	Review of Empirical Literature	24
2.3.1	External Debt and Economic Growth	24
2.3.2	Corruption and Economic Growth	27
2.4	Literature Gap	29
2.5	Conclusion	30

CHAPTER THREE METHODOLOGY

3.1	Introduction	31
3.2	Theoretical Framework and Model Specification	31
3.2.1	Hollis Chenery's Two-Gap Theory	31
3.2.2	The modified-Solow Growth Model	34
3.3	Justification of Variables	37
3.3.1	Economic Growth	37
3.3.2	External Debt	37
3.3.3	Interest on External Debt	38
3.3.4	Corruption	38
3.4	Source of Data	38
3.5	Method of Estimation	39
3.5.1	Panel Unit Root Test	39
3.5.2	Panel Cointegration Test	41
3.5.3	Estimation of the Long-Run Relationship	44
3.5.4	Panel Granger Causality Test	46
3.6	Conclusion	48

CHAPTER FOUR DISCUSSION OF RESULTS

4.1	Introduction	49
4.2	Descriptive Statistics	49
4.3	Correlation Analysis	50
4.4	Panel Unit Root Analysis	51

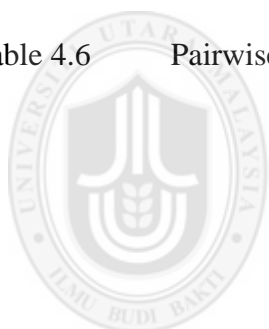
4.5	Panel Cointegration Analysis	52
4.6	Panel Coefficient Estimation	53
4.7	Panel Granger Causality Analysis	56
4.7	Conclusion	58
CHAPTER FIVE CONCLUSION AND POLICY IMPLICATIONS		
5.1	Introduction	59
5.2	Summary of Findings	59
5.3	Policy Implications	60
5.4	Limitations and Recommendations for Further Studies	62
5.5	Conclusion	62
REFERENCES		64



UUM
Universiti Utara Malaysia

LIST OF TABLES

Table 1.1	Changes in the Selected SSA Countries' External Debt Stock (2010-2015)	5
Table 1.2	External Debt and Interest Payment by SSA Countries (USD billion)	7
Table 4.1	Descriptive Statistics	49
Table 4.2	Correlation Analysis	50
Table 4.3	Panel Unit Root Analysis	51
Table 4.4	Panel Cointegration Analysis (Pedroni Test)	52
Table 4.5	FMOLS Regression Results	53
Table 4.6	Pairwise Granger Causality Analysis	57



UUM
Universiti Utara Malaysia

LIST OF FIGURES

Figure 1.1	Map of SSA Showing the Selected Countries	1
Figure 1.2	Trends in External Debt Stock and Interest Payment in Each of the Selected SSA Countries	8
Figure 1.3	Corruption and Economic Growth in the Selected SSA Countries	13



LIST OF ABBREVIATIONS

Abbreviation	Full Meaning
FMOLS	Fully Modified Ordinary Least Squares
GLS	Generalised Least Squares
IDS	International Debt Statistics
ICRG	International Country Risk Guide
IMF	International Monetary Fund
OLS	Ordinary Least Squares
SSA	Sub-Saharan Africa
WDI	World Development Indicators



UUM
Universiti Utara Malaysia

CHAPTER ONE

INTRODUCTION

1.0 Overview of the Sub-Saharan African Countries

The United Nations describes the sub-Saharan Africa (SSA) countries as all African countries located on the south of the Sahara, fully or partially. The region comprises 46 out of the 54 countries in Africa (United Nations Development Programme, 2016). The SSA countries chosen are shown in the map in Figure 1.1, and described thereafter.

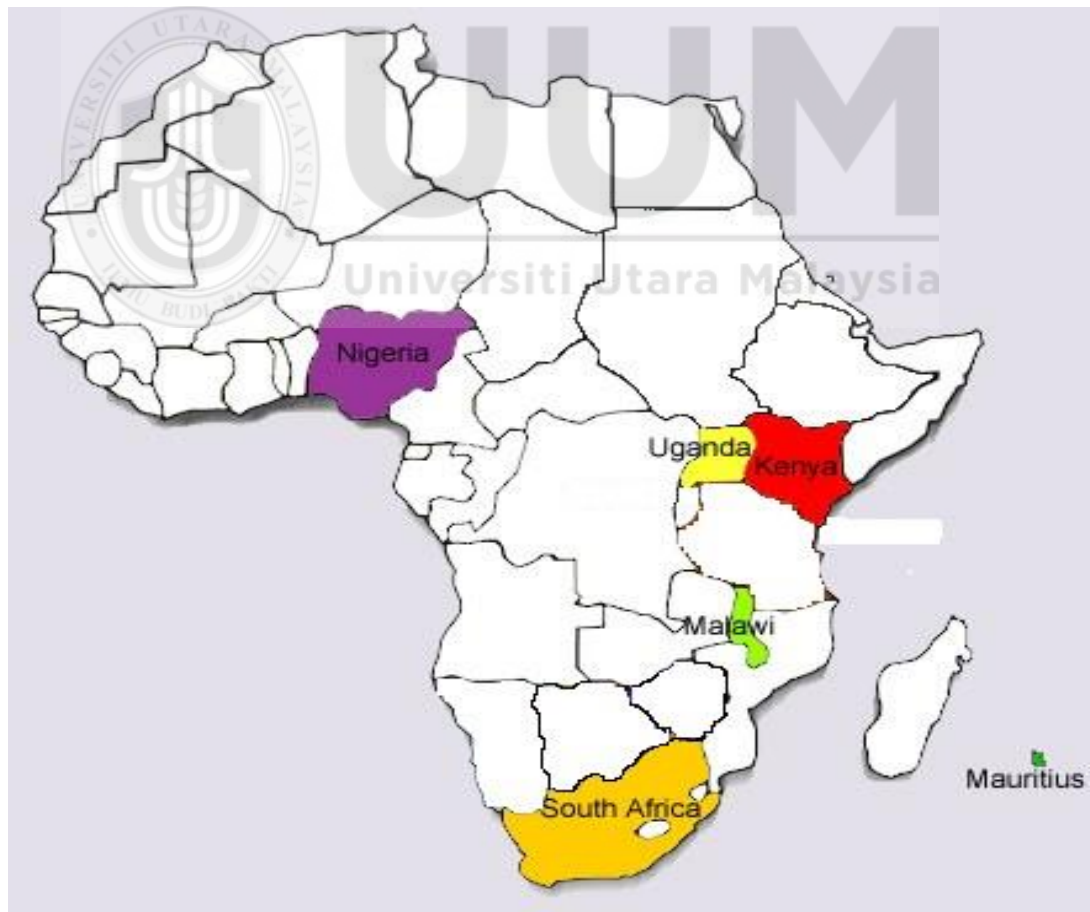


Figure 1.1
Map of SSA Showing the Selected Countries
Source: Google Map

The contents of
the thesis is for
internal user
only

REFERENCE

- Abdullahi, M. M., Hassan, S. B., & Bakar, N. A. B. A. (2016). Analyzing the impact of external debt on capital formation in Nigeria: An Autoregressive Distributed Lag Approach. *Mediterranean Journal of Social Sciences*, 7(1), 173-183.
- Acemoglu, D., & Verdier, T. (1998). Property rights, corruption and the allocation of talent: A general equilibrium approach. *The Economic Journal*, 108(450), 1381-1403.
- Adegbite, E. O., Ayadi, F. S., & Felix Ayadi, O. (2008). The impact of Nigeria's external debt on economic development. *International Journal of Emerging Markets*, 3(3), 285-301.
- Agénor, P.-R. (2012). *Public capital, growth and welfare: Analytical Foundations for Public Policy*: Princeton University Press.
- Aguiar, M., Amador, M., & Gopinath, G. (2009). Investment cycles and sovereign debt overhang. *The Review of Economic Studies*, 76(1), 1-31.
- Ajayi, S. I., & Khan, M. S. (2000). *External debt and capital flight in Sub-Saharan Africa*: International Monetary Fund.
- Asteriou, D., & Hall, S. G. (2007). *Applied econometrics: A modern approach, revised edition*. Hampshire: Palgrave Macmillan.
- Bardhan, P. (1997). Corruption and development: A review of issues. *Journal of Economic Literature*, 35(3), 1320-1346.
- Bauer, P. T. (1991). *The development frontier: Essays in applied economics*: Harvard University Press, USA.
- Bayley, D. H. (1966). The effects of corruption in a developing nation. *Western Political Quarterly*, 19(4), 719-732.
- Campos, N. F., Dimova, R. D., & Saleh, A. (2010). Whither corruption? A quantitative survey of the literature on corruption and growth. *Papers.ssrn.com*.
- Carlin, W., & Mayer, C. (2003). Finance, investment, and growth. *Journal of Financial Economics*, 69(1), 191-226.
- Chenery, H. B., & Bruno, M. (1962). Development alternatives in an open economy: The case of Israel. *The Economic Journal*, 72(285), 79-103.
- Chenery, H. B., & Strout, A. M. (1966). Foreign assistance and economic development. *The American Economic Review*, 56(4), 679-733.

- Chou, W. L., & Suk-Yee Lee, D. (2003). Cointegration analysis of audit pricing model: A panel unit root test approach. *Journal of Business Finance & Accounting*, 30 (7-8), 1141-1164.
- Christopoulos, D. K., & Tsionas, E. G. (2004). Financial development and economic growth: evidence from panel unit root and cointegration tests. *Journal of development Economics*, 73(1), 55-74.
- Claessens, S. (1990). The debt ladder curve: Some estimates. *World Development*, 18(12), 1671-1677.
- Claessens, S., Detragiache, E., Kanbur, R., & Wickham, P. (1997). Analytical aspects of the debt problems of heavily indebted poor countries. *External Finance for Low-Income Countries*, 4, 21-48.
- Cochrane, J. H. (2011). Inflation and debt. *National Affairs*. 9(2), 56-78.
- Cohen, D. (1993). Low investment and large LDC debt in the 1980's. *The American Economic Review*, 83(3), 437-449.
- Colaço, F. (1985). International capital flows and economic development. *Finance and Development, Washington D. C.* 22(3), 2.
- Coupet Jr, E. (2011). Corruption, investment and economic growth: Theory and international evidence. *Journal of Business & Economics Research (JBER)*, 1(1), 93-107.
- Dell'Erba, S., Hausmann, R., & Panizza, U. (2013). Debt levels, debt composition, and sovereign spreads in emerging and advanced economies. *Oxford Review of Economic Policy*, 29(3), 518-547.
- DiPeitro, W. R., & Anoruo, E. (2012). Government size, public debt and real economic growth: a panel analysis. *Journal of Economic Studies*, 39(4), 410-419.
- Domar, E. D. (1946). Capital expansion, rate of growth, and employment. *Econometrica, Journal of the Econometric Society*, 14(2), 137-147.
- Eberhardt, M., & Presbitero, A. F. (2015). Public debt and growth: Heterogeneity and non-linearity. *Journal of International Economics*, 97(1), 45-58.
- Engle, R. F., & Granger, C. W. (1987). Co-integration and error correction: Representation, estimation, and testing. *Econometrica: Journal of the Econometric Society*, 55(2), 251-276.

- Fosu, A. K. (1999). The external debt burden and economic growth in the 1980s: Evidence from Sub-Saharan Africa. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 20(2), 307-318.
- Greene, J. (1989). The external debt problem of sub-Saharan Africa. *Staff Papers*, 36(4), 836-874.
- Greenlaw, D., Hamilton, J. D., Hooper, P., & Mishkin, F. S. (2013). Crunch time: Fiscal crises and the role of monetary policy: *National Bureau of Economic Research*. 19297.
- Gujarati, D. N. (2009). *Basic econometrics*. Tata McGraw-Hill Education.
- Hansen, B. E., & Phillips, P. C. (1990). Estimation and inference in models of cointegration: A simulation study. *Advances in Econometrics*, 8(1989), 225-248.
- Harrod, R. F. (1939). An essay in dynamic theory. *The Economic Journal*, 49(193), 14-33.
- Hassan, S., Bakar, N. A., & Abdullah, H. (2014). Analysis of FDI inflows into China from ASEAN-5 countries: A Panel Cointegration Approach. *Journal of Economic Cooperation & Development*, 35(3), 1-28.
- Hofman, B., & Reisen, H. (1991). Some evidence on debt-related determinants of investment and consumption in heavily indebted countries. *Review of World Economics*, 127(2), 281-299.
- Huang, C.-J. (2016). Is corruption bad for economic growth? Evidence from Asia-Pacific countries. *The North American Journal of Economics and Finance*, 35, 247-256.
- Huntington, S. P. (1968). Modernization and corruption. *Political Order in Changing Societies*, 59-71.
- IDS (2017). International Debt Statistics. *Washington D. C.* Assessed via: <https://openknowledge.worldbank.org/bitstream/handle/10986/25697/9781464809941.pdf>.
- Im, K. S., Pesaran, M. H., & Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics*, 115(1), 53-74.
- Jayaraman, T. K., & Lau, E. (2009). Does external debt lead to economic growth in Pacific island countries? *Journal of Policy Modeling*, 31(2), 272-288.
- Keynes, J. M. (1929). Mr. Keynes' views on the transfer problem. *The Economic Journal*, 39(155), 388-408.

- Klitgaard, R. (1988). *Controlling corruption*: University of California Press, Los Angeles, USA.
- Krugman, P. (1988). Financing vs. forgiving a debt overhang. *Journal of Development Economics*, 29(3), 253-268.
- Lambsdorff, J. G. (2005). How corruption affects economic development. *Transparency International: Global Corruption Report*, 310-312.
- Leff, N. H. (1964). Economic development through bureaucratic corruption. *American Behavioral Scientist*, 8(3), 8-14.
- Levin, A., Lin, C.-F., & Chu, C.-S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1), 1-24.
- Megersa, K. A. (2015). The laffer curve and the debt-growth link in low-income Sub-Saharan African economies. *Journal of Economic Studies*, 42(5), 878-892.
- Mehran, H. (1986). External debt management. *Finance and Development*, 23(2), 40.
- Melina, G., Yang, S.-C. S., & Zanna, L.-F. (2016). Debt sustainability, public investment, and natural resources in developing countries: The DIGNAR model. *Economic Modelling*, 52, 630-649.
- Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433.
- Mohd Dauda, S. N., Ahmad, A. H., & Azman-Saini, W. (2013). Does external debt contribute to Malaysia economic growth? *Economic Research-Ekonomika Istraživanja*, 26(2), 51-68.
- Nguyen, T. Q., Clements, M. B. J., & Bhattacharya, M. R. (2003). *External debt, public investment, and growth in low-income countries*. International Monetary Fund, Washington D. C. 3-249
- Panizza, U., & Presbitero, A. F. (2014). Public debt and economic growth: is there a causal effect? *Journal of Macroeconomics*, 41, 21-41.
- Pedroni, P. (1999). Critical values for cointegration tests in heterogeneous panels with multiple regressors. *Oxford Bulletin of Economics and statistics*, 61(s 1), 653-670.
- Pedroni, P. (2001a). Fully modified OLS for heterogeneous cointegrated panels. *Nonstationary panels, panel cointegration, and dynamic panels*: Emerald Group Publishing Limited. 15, 93-130.

- Pedroni, P. (2001b). Purchasing power parity tests in cointegrated panels. *Review of Economics and Statistics*, 83(4), 727-731.
- Phillips, P. C., & Moon, H. R. (1999). Linear regression limit theory for nonstationary panel data. *Econometrica*, 67(5), 1057-1111.
- Richards, D., Nwanna, G., & Nwankwo, S. (2003). Debt burden and corruption impacts: African market dynamism. *Management Decision*, 41(3), 304-310.
- Sarantis, N., & Stewart, C. (1999). Is the consumption–income ratio stationary? Evidence from panel unit root tests. *Economics Letters*, 64(3), 309-314.
- Siddique, A., Selvanathan, E., & Selvanathan, S. (2015). *The Impact of external debt on economic growth: Empirical evidence from highly indebted poor countries*. University of Western Australia. Ecompapers.biz.uwa.edu.au.
- Suma, D. F. (2007). *The external debt crisis and its impact on economic growth and investment in Sub-Saharan Africa. A regional econometric approach of ECOWAS countries*. Published Thesis, WU Vienna University of Economics and Business.
- Tanzi, V., & Davoodi, H. (1998). Corruption, public investment, and growth. In *The Welfare State, Public Investment, and Growth*. 41-60. Springer Japan.
- Teles, V. K., & Mussolini, C. C. (2014). Public debt and the limits of fiscal policy to increase economic growth. *European Economic Review*, 66, 1-15.
- Todaro, E., & Smith, S. (2004). *Economics, institutions, and development: A Global perspective*. Oxford University, Oxford, UK.
- Ugur, M. (2014). Corruption's direct effects on per-capita income growth: A meta-analysis. *Journal of Economic Surveys*, 28(3), 472-490.
- UNDP (2016). United nations development programme. *New York*. Assessed via: <http://www.undp.org/content/undp/en/home/librarypage/hdr/2016-africa-human-development-report.html>.
- Wei, S.-J. (1999). Corruption in economic development: Beneficial grease, minor annoyance, or major obstacle? *Papers.ssrn.com*.
- Were, M. (2001). *The impact of external debt on economic growth in Kenya: An empirical assessment*: WIDER Discussion Papers//World Institute for Development Economics (UNU-WIDER).

World Bank (2016). World development indicators. *Washington D. C.* Accessed via:
<http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>.

