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Oil-abundance and Macroeconomic Performance in the GCC Countries

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ABSTRACT

Natural resource abundance and its reliance in terms of exports and national income of any resource-rich country may have positive or negative effect on the macroeconomic performance. This paper tests this issue in case of GCC countries by assuming the two proxies for oil dependency as income-dependence and exports-dependence and by using a period 1980–2016. For that purpose, we utilize the non-linear ARDL of Shin et al. (2014) to verify the possible asymmetrical effects of increasing and decreasing oil-dependency on economic growth. We find that the increasing income-dependence has pleasant effect and decreasing income-dependence has adverse effect on economic growth of most of GCC countries. Further, the increasing exports-dependence has adverse effect and decreasing oil-exports dependence has pleasant effect on economic growth of most of GCC countries. Furthermore, asymmetrical effects of increasing and decreasing oil-dependence on economic growth have been found in most of country cases.

Keywords: Oil Dependency, Economic Growth, GCC Countries, Non-linear ARDL
JEL Classifications: Q26, O47, O57, C52

1. INTRODUCTION

Is resource abundance a blessing or a curse? It may be a blessing if it is fostering the economic growth and it can be a curse if it has opposite results in terms of depressing economic growth or responsible for any other macroeconomic problem in a country. A controversial debate has engaged among the research scholars and policy makers in finding the exact impact of resource dependence on income and other growth related variables since the pronounced Dutch disease in 1977 after the discovery of natural gas reserves in Netherland in 1959. Dutch disease might be stemmed from the rising exchange rate due to increase in foreign exchange by increasing foreign investment and/or increasing exports' revenue from natural resources. This appreciation may result in increasing imports or in decreasing exports and may have bad effects on economic growth as well. In that way, natural resource can be termed as curse for economic growth of any country and this issue is also famous in empirical literature as natural resource curse hypothesis.

Corden and Neary (1982) proposed a classical model to describe the Dutch disease. They classified the economy into three sectors, two tradable (resource sector and manufacturing sector) and a non-tradable (services). They claimed that extraction or discovery of natural resources including oil-reserves might be considered as booming sector due to a sudden shift of a country's production to natural resource sector from lagging sectors of agriculture and industrial. Therefore, demand for labor may increase in the booming sector and this labor can be withdrawn from lagging sectors. The mineral sector usually needs a lesser labor force for its operation. Therefore, it would not have significant impact on the lagging sectors. But, a rise in income level due to emerging booming sector may significantly increase labor demand in the services business. This labor may again be withdrawn in a significant quantity from lagging sectors. Therefore, a booming sector may damage the growth of lagging sectors and overall macroeconomic performance of country in term of economic growth may also be negatively affected. Further, with growth of mining sector, the real exchange rate, which refers to the ratio of

the prices of non-tradable goods to those of tradable goods, may appreciate which may have adverse effect on the trade balance and economic growth.

In the GCC countries, it is a hot debate that oil-abundance is fruitful or not particularly in this oil price slump period now-a-days. In fact, oil-dependence may account for slower economic growth rates in the most of oil-rich economies because of their heavily reliance on oil sector in the shares of income and exports. GCC countries are not the exception in this case. In the recent oil price slump period, most of GCC countries are facing lower economic growth. This negative trend of oil prices in the international market is putting more fire in this burning issue of curse of oil-dependence in GCC countries. GCC countries are rich in oil-reserves and their exports and government revenues are largely reliant on oil-production and revenues. Therefore, any fluctuation in the oil price or oil production may have a deep influence on the activities and economic progress of these countries.

In the view of above mentioned arguments, there is a dire need to investigate this important issue of estimating the impact of oil-dependence in terms of income and exports on the economic growth of GCC countries. Increasing or decreasing oil-dependency might have different kind of effects. Therefore, this research is going to empirically investigate the possible asymmetrical effects of increasing and decreasing oil-dependency on economic growth of GCC countries by using a recently developed non-linear ARDL cointegration technique of Shin et al. (2014). For the oil-dependency, we are utilizing the two proxies of oil-income dependency and oil-exports dependency. The objectives of our study are threefold. At first, the testing of asymmetrical effects would establish that effect of increasing oil-dependency on economic growth is different from the decreasing oil-dependency or same. Secondly, we may compare and differentiate the effects of two types of oil-dependency on economic growth as there is a possibility to have different effects, in terms of magnitude or sign, of both proxies of oil-dependency on economic growth. Thirdly, the effects of any oil dependency would not necessarily to be same for economic growth of all GCC countries. Therefore, a cross country comparison of GCC is also our objective. The testing of nature resource curse hypothesis is relatively scant in the recent empirical literature. To our knowledge, there has not been a single study on this important issue in case of GCC countries particularly by achieving the above mentioned three objectives. Therefore, this paper is claiming an empirical contribution in the literature of natural resource curse hypothesis by introducing asymmetrical analysis in the relationship of oil-dependency and income.

The rest of the paper is structured as follows. The second section reviews the existing literature. The third section explains the methodology. The empirical results are discussed in the fourth section. Finally, the fifth section concludes.

2. LITERATURE REVIEW

There is a mass of literature on testing the resource-curse hypothesis. We are reviewing few important studies to show the importance of our hypothesized objectives. In a pioneer work on resource curse hypothesis, Sachs and Warner (2001) argue that resource-abundant economies have slow growth rates than that of other ones. They regress the primary product export on economic growth by using data from almost all resource-abundance countries of world and using a period of 1970–1990. They find that resource-abundance and initial income have negative effects on growth rate of resource-rich countries. Therefore, they support this hypothesis.

Gylfason (2001) investigates the relationship between proportion of natural capital in income and different indicators of economic development of resource-rich countries. In the correlational analysis, he reports a negative correlation between economic growth rate and proportion of natural capital, between proportion of public spending on education and proportion of natural capital, between years of schooling and proportion of natural capital, between school enrolments and proportion of natural capital and between economic growth rate and school enrolments. In regression analyses, he also reports the negative effects of natural capital and initial income on the economic growth and enrolment rate.

Neumayer (2004) investigates resource-curse hypothesis by developing a new variable of economic growth after deduction the natural and other depreciations from the GDP of a country. Then, he compares the effects of resource-intensity on both GDP and GDP net of depreciation. He finds that resource-intensity has a stronger negative effect on the GDP as compare to the GDP net of depreciation. Therefore, he concludes that resource-curse may be existed due to over-usage of resources in the country.

Most of studies on resource-curse hypothesis are conducted on the panel setting of resource-abundant countries. But, James and Aadland (2010) investigate this hypothesis for US counties by comparing the estimates from the time periods of 6 years (1980–1985), 11 years (1980–1990), 16 years (1980–1995), 21 years (1980–2000) and 26 years (1980–2005) by incorporating an additional 5 years in each sample period respectively for comparison. They find that natural resources and initial income have negatively impacted in each sample periods of US counties. They conclude that the natural resource has been responsible for a slower down of economic growth rates of US counties.

However, the studies in favor of the resource curse hypothesis have not always been conclusive. Collier and Goderis (2007), for example, founded that primary commodity price booms have positive effects on growth in the short run, but negative effects on growth in the long run. This is the case in particular in countries with "point source" natural resources and bad governance. Thus quality of institutions is likely to affect the quality of policies and how resources abundance impacts economic growth.

Mehlum et al. (2006) mention the responsibility of quality of institutions in determining the economic growth in the presence of natural resources in any country. Therefore they claim that natural resources may positively contribute in the economic growth of a country in presence of a good quality of institutions. On the other hand, natural resources can be proved as curse for economic growth with a poor quality of institutions in a country. Alexeev and

Conrad (2009) explore the link between oil and economic growth for cross country analysis. They claim that oil and other natural reserve have been augmented the long run growth of oil-rich countries. Further, regional dummies of absolute latitude, Europe, Latin America and East Asia have also been found positively impacting the economic growth. Further, school enrollments and intuitional quality have also positively contributed in the economic growth. Therefore, the poor institutional quality may be declared responsible for poor growth of some of oil-rich countries.

Sala-i-Martin and Subramanian (2013) investigate this hypothesis for Nigeria by exploring the effect of oil and mineral on economic growth. They found a negative non-linear influence of natural-resources on the economic growth. The weak institutional quality due to oil reserve in country is also found responsible for slower growth. Ploeg and Poelhekke (2009) explore the resource curse hypothesis in more dynamic way. At first, they claim that economic growth is negatively influenced by unanticipated income volatility. Therefore, the expected positive contribution of natural resource may be damped by negative effect of income volatility. In the presence of well-developed financial markets, natural resource curse is less likely to be occurred. Further, ethnic tensions are increasing income volatility and are depressing economic growth subsequently. Trade restrictions are depressing income volatility and helping in raising economic growth. In conclusion, they report that income volatility is majorly responsible for resource curse hypothesis.

In conclusion, the reviewed literature has mix evidence of positive and negative contribution of natural resource in determining the economic growth. Therefore, it is an empirical question for any resource rich country to test the exact impact of resource abundance or dependence on the economic growth. This issue has not yet caught enough attention in case of oil-rich GCC countries in empirical literature before. In addition, the expected asymmetrical effects of increasing and decreasing resource/oil dependency have also been never tested before in the empirical literature. Therefore, the present study claims for an empirical contribution by testing the asymmetrical effects of increasing and decreasing oil dependency on economic growth of GCC countries by assuming two proxies of oil dependency as oil-revenue dependency and oil-exports dependency to verify resource curse hypothesis.

3. METHODOLOGY

To estimate the influence of oil dependency on the macroeconomic performance, we are using GDP growth rate a proxy for macroeconomic performance and oil exports as proportion of exports and oil-revenue proportion of GDP proxy for oil dependency. Our basic model is as follows:

$$GR_t = f(OR_t, OX_t) \quad (1)$$

Where, GR_t is showing the GDP growth rate, OR_t is for oil revenue as percentage of GDP and OX_t is oil exports as proportion of exports. The subscript *t* is showing a sample time period of 1980–2016. The oil revenue may have positive impact of GDP growth rate as oil revenue is a part of GDP and oil exports may also contribute positively in GDP growth rate as oil exports is part of total exports and GDP. On the other hand, both proxy of oil dependence may have negative effect on economic growth due to a heavy dependence on the oil sector and due to shrinking of other sectors of economy like dutch disease hypothesis. Therefore, we can hypothesize either positive or negative effect of oil dependence on economic performance of GCC countries but the exact relationship is an empirical question and can't be answered before empirical investigation.

For the long and short run analyses, we are choosing Shin et al. (2014), non-linear ARDL cointegration, methodology due to two reasons. At first, ARDL methodology test the cointegration by utilizing the lower I(0) and upper I(1) bound values. Therefore, it provides the efficient estimates even in the presence of a mix order of integration as some macroeconomic series could have unit root problem at level and other may not have such problem. By this argument, we can ignore the unit root test on the selected series to be estimated for cointegration in the ARDL methodology. Secondly, non-linear ARDL cointegration can allow us to test and to differentiate the effects of increasing and decreasing oil dependence on the macroeconomic performance and to test the possibility of asymmetry in the said relation. For this purpose, increasing and decreasing oil dependence with two hypothesized proxies can be generated in the following way:

$$ORP_t = \sum_{i=1}^{t} \Delta ORP_i = \sum_{i=1}^{t} \max(\Delta OR_i, 0) \quad (2)$$

$$ORN_t = \sum_{i=1}^{t} \Delta ORN_i = \sum_{i=1}^{t} \min(\Delta OR_i, 0) \quad (3)$$

$$OXP_t = \sum_{i=1}^{t} \Delta OXP_i = \sum_{i=1}^{t} \max(\Delta OX_i, 0) \quad (4)$$

$$OXN_t = \sum_{i=1}^{t} \Delta OXN_i = \sum_{i=1}^{t} \min(\Delta OX_i, 0) \quad (5)$$

Equations 2 and 3 have converted the OR_t into two positive ORP_t and negative ORN_t variables by taking partial summation of positive and negative variations in the OR_t variable. Likewise, OX_t has been converted into two positive OXP_t and negative OXN_t variables in the equations 4 and 5 respectively. Both ORP_t and OXP_t are showing increasing oil dependency and ORN_t and OXN_t are showing decreasing oil dependency of GCC countries on the oil production and exports. To test the influence of oil dependency on macroeconomic performance of GCC countries in the non-linear settings, we can generate the non-linear ARDL model in the following way:

$$\begin{aligned}\Delta GR_t = {} & \gamma_0 + \gamma_1 GR_t + \gamma_2 ORP_{t-1} + \gamma_3 ORN_{t-1} + \gamma_4 OXP_{t-1} \\ & + \gamma_5 OXN_{t-1} + \sum_{j=1}^{q1} \delta_{1j} \Delta GR_{t-j} + \sum_{j=0}^{q2} \delta_{2j} \Delta ORP_{t-j} \\ & + \sum_{j=0}^{q3} \delta_{3j} \Delta ORN_{t-1} + \sum_{j=0}^{q4} \delta_{4j} \Delta OXP_{t-1} \\ & + \sum_{j=0}^{q5} \delta_{5j} \Delta OXN_{t-1} + \zeta_t\end{aligned} \quad (6)$$

In equation 6, optimum lag length, to remove the possible endogenous effects, has been selected though Akaik information

criteria. Afterwards, bound test could be applied to verify the cointegtaion on the null hypothesis of $\gamma_1 = \gamma_2 = \gamma_3 = \gamma_4 = \gamma_5 = 0$. Then, we can estimate the long run effects of our regressors on economic growth through normalizing procedure of $-\gamma_2/\gamma_1$, $-\gamma_3/\gamma_1$, $-\gamma_4/\gamma_1$ and $-\gamma_5/\gamma_1$. Hereafter, Wald test can be applied to certify the asymmetries of oil-revenue dependency and oil-export dependency on economic growth through null hypotheses of $(H_0 : \gamma_2/\gamma_1 = \gamma_3/\gamma_1)$ and $(H_0 : \gamma_4/\gamma_1 = \gamma_5/\gamma_1)$ respectively. Further, short run relationship can be accessed by replacing the second to sixth terms of the right side of equation 6 with error correction term (ECT_{t-1}) and then short run effects can be estimated through coefficients of differenced lagged variables.

4. ANALYSES AND INTERPRETATIONS

Our study used a data set including GDP growth rate, oil revenue and oil export, in GCC countries over the period 1980–2016. This kind of data is available in WDI database of the World Bank. The time period is at annual basis. Table 1 shows the bound test on the selected non-linear ARDL models of all GCC countries. F-values from test are higher than upper critical values at 1% level for all GCC countries except Oman and Omani model shows significance at 5% level. Therefore, we can corroborate the presence of long run relationships in the models of all GCC countries. Further, diagnostic tests are also showing that all estimated model for fine for further analyses.

Table 2 shows the long run effects of oil dependency on the economic growth of GCC countries in the non-linear settings. The ORP_t has a negative impact on economic growth in case of Bahrain and positive effects in case of Qatar and UAE. It means that increasing oil-GDP dependence has adverse effect on Bahrain but it is blessing for the Qatar and UAE. On the other hand, ORN_t has a negative impact on economic growth in case of Bahrain and positive effects in case of Qatar and Oman. It means that decreasing oil-GDP dependence has favorable effect for Bahrain but it is unfavorable for the Qatar and Oman. In most of cases, oil revenue as proportion of GDP proofsas good for the economic growth and therefore, we can conclude that oil dependence in terms of income is good for most of GCC countries in supporting their economic growth. In analysis of relationship between oil-export dependence and economic growth, OXP_t has negative and significant impact on economic growth in Kuwait, Saudi Arabia and UAE. Therefore, increasing oil-exports dependency has adverse effect on the economic growth of most of GCC countries. Further, OXN_t has negative and significant impact on economic growth in Kuwait, Oman and Saudi Arabia and it has positive and significant impact in case of Bahrain and UAE. Again we can conclude that decreasing oil-exports dependency is found helpful in raising economic growth for most of GCC countries. However, decreasing oil-exports dependency is found responsible for decreasing economic growth in UAE and Bahrain.

Table 2 also shows the results of Wald test to verify the asymmetry of oil dependency on economic growth. The results show that all the models are showing asymmetrical effects of increasing and decreasing oil-GDP dependency on the economic growth of all GCC countries. Further, results of Wald test on asymmetrical effects of increasing and decreasing oil-exports dependency are showing in case of Bahrain, Oman, Saudi Arabia and UAE but symmetrical effects have been found in case of Kuwait and Qatar. Mostly asymmetrical attributes are captured through different magnitude of coefficients and signs of coefficients are mostly same. The asymmetrical effects of increasing and decreasing oil-exports dependence, in terms of significant opposite sign, on economic growth is only found in case of UAE.

Table 3 shows the short run effects of oil dependency on the economic growth. The coefficients of ECT_{t-1} are negative and significant in the all models of GCC countries and short run relationships can be claimed for all models to interpret short run impacts. The lag of economic growth is impacting the level of economic growth positively in case of Bahrain and Kuwait and negatively in case of Qatar. The increasing oil-GDP dependency is affecting the economic growth positively in case of UAE and negatively in case of Bahrain and Oman. We can conclude that increasing oil-GDP dependency is not good for the economic growth of most of GCC countries. This result is different from the long run results as increasing oil-GDP dependency has been proved good for economic growth of most of GCC countries in

Table 1: Bound test on selected ARDL models

Test	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
F-value	12.2221	15.7675	4.0123	8.2514	7.9153	7.7016
Diagnostics tests						
Heteroscedasticity	0.0495	1.2654	1.4512	1.3547	1.5421	0.4219
	(0.8214)	(0.2546)	(0.2345)	(0.2541)	(0.2158)	(0.5641)
Serial correlation	1.6541	1.8954	1.2541	1.6574	1.8746	1.1087
	(0.1754)	(0.1578)	(0.2014)	(0.1854)	(0.1579)	(0.2874)
Normality	0.8745	2.3415	1.6516	0.7954	0.8746	1.5746
	(0.6587)	(0.2847)	(0.3498)	(0.6985)	(0.6241)	(0.4415)
Functional form	0.1746	0.6874	0.3987	1.7964	1.3987	1.8541
	(0.5945)	(0.3874)	(0.5148)	(0.1687)	(0.3287)	(0.1874)
Critical bound value	I (0)			I (1)		
At 1%	3.74			5.06		
At 5%	2.86			4.01		
At 10%	2.45			3.52		

Table 2: Long run estimates

Variable	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
ORP_t	−1.3571	−0.1299	0.0707	1.0816	0.2285	0.8631
	(0.004)	(0.4282)	(0.5644)	(0.0140)	(0.1742)	(0.0017)
ORN_t	−1.4898	−0.2531	0.4493	0.9699	0.1356	0.2680
	(0.0000)	(0.3613)	(0.0120)	(0.0201)	(0.6139)	(0.2536)
Wald test:	4.2545	3.5412	5.5471	7.6541	4.6543	5.4527
$(H_0 : \gamma_2/\gamma_1 = \gamma_3/\gamma_1)$	(0.02541)	(0.0814)	(0.0214)	(0.0065)	(0.0401)	(0.0214)
OXP_t	0.0160	−0.4822	0.0626	−0.2383	−1.3061	−0.0974
	(0.2602)	(0.0231)	(0.5986)	(0.5450)	(0.0174)	(0.0482)
OXN_t	0.0776	−0.4567	−0.3395	−0.2581	−0.8701	0.2903
	(0.0052)	(0.0430)	(0.0484)	(0.5263)	(0.0945)	(0.0142)
Wald test:	18.5412	1.1452	9.9841	1.7894	14.9874	20.5541
$(H_0 : \gamma_4/\gamma_1 = \gamma_5/\gamma_1)$	(0.000)	(0.2845)	(0.0025)	(0.1954)	(0.0000)	(0.0000)
Intercept	−0.0121	0.4131	1.0657	−0.5468	−0.5312	−0.0906
	(0.0005)	(0.0495)	(0.0003)	(0.3443)	(0.6208)	(0.9886)

Table 3: Short run estimates

Variable	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
ΔGR_{t-1}	0.7418	0.1704	0.2213	−0.4624		
	(0.0006)	(0.0889)	(0.1826)	(0.0073)		
ΔORP_t	−3.6742	0.3743	−0.3752	0.3018	0.2620	1.4940
	(0.0141)	(0.1239)	(0.0476)	(0.2672)	(0.1928)	(0.0000)
ΔORP_{t-1}	−1.8144			−0.5793		
	(0.2691)			(0.0375)		
ΔORP_{t-2}	−0.1176					
	0.9342					
ΔORP_{t-3}	1.7307					
	(0.1495)					
ΔORN_t	−0.2769	0.3425	0.5339	0.1845	0.3379	0.6814
	(0.6825)	(0.1114)	(0.0296)	(0.4193)	(0.2095)	(0.0072)
ΔORN_{t-1}	1.8869	0.7426			0.4356	
	(0.0272)	(0.0220)			(0.0539)	
ΔOXP_t	−0.1223	−0.3295	0.0745	0.4254	−0.3887	0.2941
	(0.0081)	(0.0624)	(0.5952)	(0.0974)	(0.7312)	(0.1049)
ΔOXP_{t-1}	−0.0376	0.0889		0.3920	2.1626	
	(0.4556)	(0.3874)		(0.1045)	(0.0516)	
ΔOXP_{t-2}	−0.0786	−0.1941				
	(0.1596)	(0.0634)				
ΔOXP_{t-3}	−0.0435	0.3708				
	(0.3044)	(0.0000)				
ΔOXN_t	0.1485	0.1223	−0.4035	−0.1295	−0.9978	0.0577
	(0.0486)	(0.3211)	(0.0853)	(0.5312)	(0.1290)	(0.8567)
ΔOXN_{t-1}	−0.0553	−0.8981				−0.5789
	(0.4832)	(0.0015)				(0.1224)
ΔOXN_{t-2}	−0.0137	0.4954				
	(0.8368)	(0.0547)				
ΔOXN_{t-3}	0.1063	0.3853				
	(0.0870)	(0.1803)				
ECT_{t-1}	−0.2262	−0.9081	−1.1883	−0.5016	−1.1469	−0.8764
	(0.0000)	(0.0000)	(0.0000)	(0.0095)	(0.0000)	(0.0000)

the long run. The decreasing oil-GDP dependency is affecting the economic growth positively in case of Oman and UAE in the short run. So, this short run result is matching with long run results. The increasing oil-exports and/or its some lags are affecting negatively to economic growth in case of Bahrain and Kuwait and positively in case of Qatar and Saudi Arabia. The decreasing oil-exports and its some lags are affecting positively to economic growth in case of Bahrain and negatively in case of Oman. While it has mix effects of positive and negative in case of Kuwait. Most of short run impacts of oil-exports dependence are same as long run results.

5. CONCLUSIONS AND RECOMMENDATIONS

This paper seeks to find the effects of oil dependence through oil-export dependence and oil-GDP dependence on the economic growth of GCC countries by using time period 1980–2016. Further, it also aims at inquiring the possible asymmetries effects of oil dependence on the economic growth. For this inquiry, non-linear ARDL cointegration has been utilized and we find the evidence of strong cointegration of all GCC countries' models. Our results suggest that the increasing oil-GDP dependence has adverse effect on economic growth of Bahrain but has pleasant effects for Qatar and UAE. The decreasing oil-GDP dependence is supporting economic growth of Bahrain but it is discouraging economic growth of Qatar and Oman. In overall, we can claim that increasing oil dependence in terms of GDP has favorable impact on the most of GCC countries. Further, asymmetrical effects of increasing and decreasing oil-GDP dependence have been found for the models of all GCC countries. On the other hand, the increasing oil-exports dependency has adverse effects on the economic growth of most of Kuwait, Saudi Arabia and UAE. While, the decreasing oil-exports dependency is helping in raising economic growth of Kuwait, Oman and Saudi Arabia and is reducing economic growth of Bahrain and UAE. Most of countries' results favor the lesser oil-exports dependency for better economic growth. Further, asymmetrical effects of increasing and decreasing oil-exports dependence have been found for Bahrain, Oman, Saudi Arabia and UAE.

Based on the results, we recommend the Bahrain to reduce oil-GDP dependency to support the economic growth in the country. Further, we recommend the Kuwait, Saudi Arabia and UAE to reduce oil-exports dependency to support the economic growth.

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REFERENCES

Alexeev, M., Conrad, R. (2009), The elusive curse of oil. The Review of Economics and Statistics, 91(3), 586-598.

Collier, P., Goderis, B. (2007), Commodity Prices, Growth and the Natural Resources Curse: Reconciling a Conundrum. Oxford: The Centre for the Study of African Economie Working Paper Series, Working Paper No. 276.

Corden, W.M., Neary, J.P. (1982), Booming sector and deindustrialization in a small open economy. The Economic Journal, 92, 825-848.

Gylfason, J. (2001), Natural resource, education and economic development. European Economic Review, 45, 847-859.

James, A., Aasland, D. (2010), The Curse of Natural Resources: An Empirical Investigation of US counties. WY: University of Wyoming.

Mehlum, H., Moene, K. and Torvik, R. (2006), Institutions and the resource curse. The Economic Journal, 116, 1-20.

Neumayer, E. (2004), Does the "resource curse" hold for growth in genuine income as well? World Development, 32(10), 1627-1640.

Ploeg, F.V.D., Poelhekke, S. (2009), Volatility and the natural resource curse. Oxford Economic Paper, 61(4), 727-760.

Sachs, J., Warner, A. (2001), Natural resources and economic development: The curse of natural resources. European Economic Review, 45, 827-838.

Sala-i-Martin, X. and Subramanian, A. (2013), Addressing the natural resource curse: An illustration from Nigeria. Journal of African Economics, 22(4), 570-615.

Shin, Y., Yu, B., Greenwood-Nimmo, M. (2014), Modelling asymmetric cointegration and dynamic multiplier in an ARDL framework. In: Horrace, W.C., Sickles, R.C., editors. Festschrift in honor of Peter Schmidt. New York: Springer Science and Business Media.