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Fiscal Policy as a Challenge on Oil Exporting Countries

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ABSTRACT

Fiscal policy assumes the life-wire, and most critically, of resource volatilized economies, it is facing specific challenges both in the short run as regards microeconomic stabilization and fiscal planning, and in the long run, as regards intergenerational equity and fiscal sustainability. This paper demonstrates the fiscal policy challenges faced by Oil Exporting Countries (OECs) in the past, including volatile revenue structure, weak budget system and spending pattern which often have given rise to high inflationary pressure, poor investment and low growth profile. The aim is to identify the weakness in the fiscal policy of oil-rich economies and make empirical assessment of policy impact on their economic growth. The paper reveals that fiscal policy of OECs had not significantly impacted on their economic growth, with more negative influence generated by crude oil prices, which is indicative of serious fiscal volatility and risk. It also shows that inflation and government spending had increased tremendously in oil exporting countries during upswings in oil surpluses and oil prices, suggesting that fiscal policies of OECs tend to be largely driven by government budgets, with less private sector leadership and developed market economic initiative. There appears to be lack of evidence that fiscal crude oil surpluses accruing to OECs over the years have impacted significantly on economic growth of OECs, and this is indicative of fiscal policy weakness in translating abundant oil revenue into sustainable economic growth. To make a positive policy outcome for sustainable economic development in oil exporting countries, the budget process must be effectively managed, with the aim to decoupling government spending from volatile oil revenue, and institutionalizing private sector-led growth economy.

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Introduction

Resource rich-economies in general are at a critical juncture, facing the challenge of revamping their fiscal policy institutions and conduct to strengthen macroeconomic and financial stability, raise growth and improve intra/intergenerational equity. Fiscal policy assumes the life-wire of any economy. Its key relevance applies to balancing and adjusting macro economic conditions to achieve growth. A prudent assessment of the general government budget gives a view of the approximate economic conditions, government resources movements and macroeconomic fiscal relationships. However, the foundation and principles of fiscal policy as credited to the Keynesian model seems to have failed to drive and address long term growth challenges, specifically in Oil Exporting Countries (OECs). The early proponents of fiscal policy predict that increased government spending or reduced tax will increase disposable income, raise private consumption and economic growth. According to Raghbendra (2007), four main components of fiscal policy are expenditure, budget reform, revenue (particularly tax revenue) mobilization, deficit containment/financing, and determining fiscal transfers from higher to lower levels of government. Therefore, fiscal policy crucially serves as a mechanism for adjusting government spending, monitoring and influencing macroeconomic conditions and mitigating conflicts between competing objectives in a given economy. Because this paper deals with OECs, it concentrates among other things on the challenges

faced by OECs arising mostly from the fiscal oil volatility and dependency.

As a dominant model in practice and belief, the inability of high government spending and huge oil revenue to generate needed economic transformation fundamentally indicates that oil producing countries face serious fiscal policy challenge. Because abundant oil revenue accruing to government overtime becomes disposable through appropriation across the budget, fiscal policy of OECs tend to pro-cyclically intensify government revenue owing to its natural characteristic. Given the volatile and exhaustible nature of oil economy, institutional responses advocate fair intergenerational allocation of oil proceeds. Despite conservative oil price budget approach, fiscal policy challenge stems from the fact that, as the status quo suggests, government is more recognized as an accumulator of oil resources which are immediately converted to "income" than financial asset for future consumption and investment in physical assets like infrastructure. It therefore raises sustainability challenges over the fiscal policy practices and direction of oil producing countries. This is because, it is argued, from experience of OECs, that abundant oil revenue has strong tendency to negatively influence the direction and pattern of fiscal management and socio-economic policies of those economies, with short and long run implications. All of these factors have contributed to poor growth but also to staggering destructive development outcomes, indicating that the fiscal path of

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OECs economies is continuously driven by the budget which, due to institutional deterioration, could amount to oil mismanagement. The paper specifically examines the relationship between government spending and fiscal oil surpluses of OECs with a view to balancing the effects of these indicators on economic growth.

The paper therefore looks at the fiscal policy developments in notable four oil rich countries including Nigeria, Saudi Arabia, Russia, and Kuwait in periods of ups and downs in oil market economy; more considerably from 2005 to 2013 fiscal years. These five countries are among the world's top ten net oil exporters, and represent mixed experience of different regions (Nigeria/sub-Saharan Africa), (Saudi Arabia/GCC), (Russia/C/s), and (Kuwait/GCC). They differ with key macroeconomics such as population growth and size, GDP per capital, and size of economy but share similarity in terms of high economic and fiscal dependency on oil revenue.

The key objective is to identify fiscal policy challenges on oil-exporting countries. Therefore, it aims to:

- (i) Ascertain the effects of fiscal policy on the growth levels of OECs over the years
- (ii) Identify the weaknesses in fiscal policy of OEC.

In terms of the objectives outlined empirical questions deal with the following:

- (i) To what extent has oil surpluses of OECs impacted on their growth level?
- (ii) Is the economic growth of OECs more affected by poor utilization of oil surpluses than crude oil fluctuations?

The following null hypothetical predictions are necessary to be evaluated in terms of the above objective.

H₀₁: Fiscal policy in oil exporting countries has not impacted significantly on their growth.

H₀₂: Crude oil prices do not impact more positively on the growth level of OECs than utilization of oil surpluses.

Assessing Fiscal Sustainability in OECs

Sustainability issue is one fiscal policy challenge of an oil economy. Here, this paper assesses whether or not an OEC can maintain its current fiscal policy without running into solvency problems or high fiscal risk. Fiscal sustainability analysis approach for oil rich economies are predominantly heterogeneous in literature. First of all, it presents the macroeconomic and fiscal volatility short and long run impact of fiscal policy. Second, it associates indicators of fiscal stance in oil producing countries to fiscal policy impact and sustainability.

According to Alien (2006), fiscal sustainability is important as it addresses short/long runs macroeconomic developments for any economy. It does not only deal with solvency of the government but it has acquired several dimensions that pertain to governments that have no difficulty in meeting current obligation. Alien (2006) identifies four dimension of fiscal sustainability include s- solvency (the ability of government to pay its financial obligation), growth – (fiscal policy that sustains economic growth), stability (the capacity of government to meet to future obligation with existing tax burden), and fairness (the capacity of government to pay current obligation without slighting cost of future generations). These parameters overlap. Specifically on growth, the broadened concept of fiscal sustainability encompasses the notion of prudent finances. In other words, growth will not be sustained if deficits and debt breach the parameters of growth. Therefore, the relationship between economic indicators and fiscal volatility is important to

determine sustainability implications of fiscal policy. The rest of this section looks into macroeconomic fiscal volatility, and indicators of fiscal stance in oil producing countries.

Fiscal Volatility Trend

Understanding what causes the price of oil to change can often times be a confusing subject. One factor is the global changes in supply and demand among other geo-political factors. With the aim to keep stable price, OPEC activities continue to drive oil prices. According to Matt (2014), the pattern of consumption between developed and developing countries (e.g. the developing Middle East, the strong growth in demand from China and USA, other industrialized economies, and the economic philosophies of OECs are among the relevant issues. Among the four consumers of energy demand (transportation, residential, commercial and industrial), transportation sector is the largest sector, accounting for the 55% of oil use worldwide (Hirsh, 2010). There is however a growing consensus among researchers like Kent (2013), Jun (2013), Lutz (2010) that attributes oil price shocks to a combination of rising demand and tension in the Middle East and North Africa (MENA) which may cut global growth by as much as 0.5 percent by 2014. According Edward (2013), IMF predicts an average global oil decline of \$101.40/b with slow energy market demand in 2014.

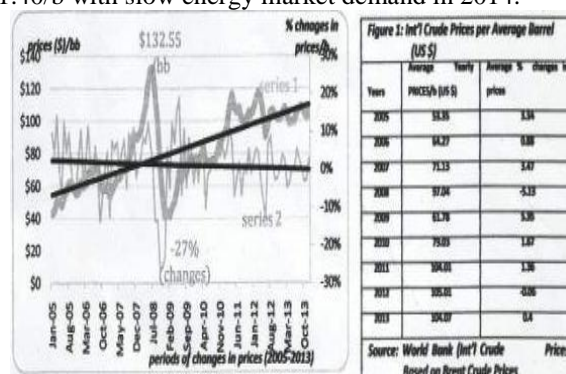


Chart A. Int'l Crude Prices Volatility (2005-2013)

Increased demand from China and India since 2002 continues because these economies are at an energy intensive stage of development. In the worst case, IMF had predicted that disruptions in the Middle East would push oil price at \$133/b in July 2008 with 1% increase from the previous month and 14% decrease from the preceding month, which relatively is in tandem with facts in figure 1. The trend line or series 2 appears to slope downwards, indicating greater downward vitality in the rate of change of oil price than upward movement. The highest increase in oil price was recorded in mid 2009 when price increased by 19% (i.e. from \$58/b to \$69/b), while the highest decrease occurs in October 2008 when oil prices declined from \$99/b to \$73/b resulting to 27% decrease. Volatility can have high costs. It tends to be negatively correlated with investment ratios, can lead to short-term bias in fiscal policy, and destroy human and physical capital during deep recessions. Therefore, it could be predicted that OECs budget performance is dependent on volatile oil revenue and, this further highlights greater exposure to fiscal risk.

Fiscal Cyclicity

The macroeconomic impact of changes in economic quantities and the nature of relationships can raise fiscal cyclicity challenges in OECs. Research shows that fiscal (and monetary) pro cyclicity is more likely in countries with poor fiscal governance, high levels of corruption, low fiscal credibility, domestic financial under-development, and weak

integration into world financial markets (Abdih, Lopez-Murphy, Rotiman and Sahay, 2010, Calderon, Duncan and Schmidt-Hebbel 2011). This evidence is particularly relevant for OECs, where fiscal policy is pro-cyclical. For example, with the exception of Kuwait, general government balances worsened substantially in most OECs (Fig. 5 to 8), during the late 2008 and 2009 - 2010 oil-price shock followed by recovery hence exhibiting strong policy pro-cyclicality. Long-term fiscal cyclical position predictably worsens in oil-producing countries due to weak fiscal sustainability. Villafuerte and Lopez (2010) contend that fiscal positions are often vulnerable to reversals after price booms in resource-rich economies. In oil-producing countries, a relatively small decline in oil prices leads to a substantial increase in net financing needs, as a result of absence of fiscal and exchange-rate adjustment.

The analysis of oil price vitality poses many useful implications to oil dependent economies. First, it makes the budget and fiscal balances highly sensitive when budgeted oil price does not match with global crude prices. For instance, between August 2008 and February 2009, the average oil price and price change stood at \$67/b and 15% decline respectively. This is the longest period of shock in oil fiscal revenue. Further analysis shows that, in term of fiscal risk, most countries whose budgeted oil price falls within this region could be possibly trapped. Later discussions will reveal volatility trend effects of oil on macroeconomics.

In terms of volatility management in some OECs like Mexico, the current fiscal framework has led to limited smoothing of the impact of revenue volatility on public expenditures, (Serven, 2007). According to OECD (2009), volatility can be smoothed by a more gradual injection of oil revenues to the economy, particularly by increasing the caps on the stabilization funds. This would have the additional benefit of counting with a larger fiscal cushion in economic downturns, as debt-financing of larger deficits can be costly amid a general rise in perceptions of risks. So, strengthening the mechanisms in the budget to limit expenditure volatility is desirable. Reforming the fiscal rules to reduce volatility is thus an important change.

Fiscal Oil Price Benchmarking and Budget

In trying to identify the fiscal position of OECs, there is need to make a relative assessment of OECs budgeted oil prices and international oil price averages per barrel as shown in the fig.2 for the period 2005-2013.

Figure 2(a): Budgeted Oil Prices per barrel of OECs and International Oil Market Price Average per barrel (US \$)

Fiscal years	Int'l oil price Average, per barrel (US \$)	Oil Prices per barrel of OECs Government Annual Budget (US \$)								Int'l Price Change per Barrel	Oil % per
		Nigeria		Saudi Arabia		Russia		Kuwait			
	1	Budgeted prices 2	oil Surplus (Deficit) 2	Budgeted oil prices 3	Surplus/ (Deficit) 3	Budgeted oil prices 4	Surplus/ (Deficit) 4	Budgeted oil prices 5	Surplus/(Deficit) 5		
2013	104	79	25	70	34	97	7	65	39		0
2012	105	71	34	73	32	93	12	60	45		0
2011	104	65	39	58	46	60	44	60	44		1
2010	79	60	19	48	31	55	24	43	36		2
2009	62	45	17	50	12	50	12	35	27		5
2008	97	59	38***	49	48*	65	32****	50	47**		-5
2007	71	35	36	47	24	55	16	36	35		3
2006	64	33	31	50	14	43	21	30	34		1
2005	53	30	23	35	18	26	27	21	32		3
Total			263		250		244		333		

Sources: Various OECs Government Annual Budgets

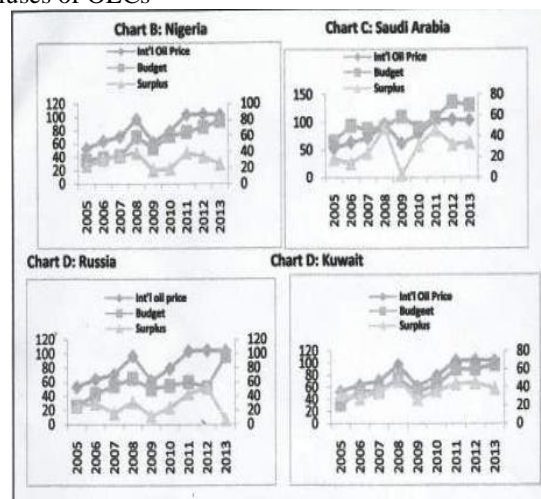
Sources: Various OECs Government Annual Budgets

Fiscal oil budget effect looks at the fiscal situation between international and OECs budgeted oil prices per barrel leading to fiscal budget surplus or deficit. For the period, Kuwait and Nigeria experienced the largest oil budget surplus of \$333 and \$263 per barrel respectively, followed by Saudi

Arabia with \$250 per barrel and Russia, with \$ per barrel. This indicates that some OECs have adopted more conservative oil price benchmark than others. The 2008 fiscal year is significant to OECs for two major reasons:

First, OECs experience the highest oil price volatility (fig 2), with international crude price rising from \$91/b in January to the peak price of \$133/b in July followed by a drastic decline to \$42/b by December, indicating net average crude price change at -5% (col. Fig.2). On account of this, James (2009) explains that the world oil market operates subject to the familiar laws of demand and supply, and market fundamentals dominantly influence prices. He notes that endogenous factors that distort oil production in some regions, remarkably, the Nigerian Workers Union strike of April 25, 2008, which caused ExxonMobil to shut down production of 780,000 barrels per day from three fields. And as of May 1, 2008, about 1.36 million barrels per day of Nigerian production was shut in due to a combination of Niger Delta Militant attacks on oil facilities, sabotage and labour strife.

Fig (2b) Relationship Chart: Int'l Oil Price and Fiscal Surpluses of OECs



The period's oil peak saw Nigeria, Saudi-Arabia and Kuwait with their largest fiscal oil surpluses (*) respectively while Russia's surplus increased by 50% (\$16/b to \$32/b) per barrel (**) in 2009, the net average increase of 5% in the world oil price (oil price at \$62 per barrel) saw OECs with drastic reduction in oil fiscal surplus with Kuwait experiencing reduction of 43%, Nigeria 56%, Russia 63% and Saudi Arabia 94%. Note that while Saudi Arabia stands largest in terms of oil surplus revenue in 2008, this trend reversed in 2009. Although OECs budgets took recognition of the protracted turbulence of 2008 oil shock by adopting conservative budgeted oil price benchmark, fiscal surplus of these countries differed significantly between these periods. It becomes clear that planned fiscal crude surpluses for OECs assumes that market oil price and budgeted benchmark price must be well fitted. This also informs that the domestic fiscal oil economy can be controlled virtually through conservative budgeting system, as long as crude surplus forecast is based on international oil prices dynamics. The methods used in determining oil price benchmark vary in terms of their effectiveness across OECs.

Oil price Benchmarking Methods by OECs (Nigeria & Saudi Arabia)

Government budgets of oil exporting countries are based on specific oil prices (benchmark). The methods of reaching the benchmark price vary with macroeconomic indicators

across OECs hence, some rules are more effective than others and OECs are faced with difficulty in the choice of method. Nigeria's policy makers use the Moving Average Method (MAM) for pegging oil price benchmarks, Abiola and Harrison (2013). This method involves taking an average of a long series over the years to make projections about the future behavior of the series. According to Abiola and Harrison, the rationale as argued by BOF is to capture the long term period of cyclical economic behaviors of crude oil prices and save some amounts of money to smoothen government fiscal concern in times of economic peril. Abiola and Harrison maintain similar notion arguing that the MAM operational in Nigeria budgeting system seems not to be systematic because it does not take into account more importantly short term movements and nature of oil price volatility, hence, the use of Autoregressive integrated moving Average (ARIMA) is suggested.

(SR 'Million)	Worst Case	Most Likely	Best Case
Arab Light Price (US\$/b)	55.0	58.0	65.0
Production (M b/d)	7.5	8.0	8.5
Oil Revenue	531,759.4	600,060.0	719,004.4
Other Receipts	69,128.7	78,007.8	93,470.6
Total Revenue	600,888.1	678,067.8	812,474.6
Total Expenditure	603,250.0	598,500.0	593,750.0
Surplus/Deficit	(2,361.9)	79,567.8	218,724.9

Figure 3. Saudi-Arabia's Scenarios Fiscal Year Budget Outcome

Saudi-Arabia adopts a scenario approach prevalently for 2009 fiscal year budgets (Fig.3). This approach divides fiscal likelihood in three cases (worst case, most likely and best case) scenarios. Each scenario represents distinct levels of variables budgeted: oil price per barrel (\$price/b), production (mb/d), oil revenues other receipts, total revenue and total expenditure. The resultant effect is the surplus or deficit. For conservativeness, budget is mostly based on the worst case, with high probability of achieving best case condition or bounce back to most likely threshold in the event of economic peril. For instance Omar, fiscal and Mohammed (2009) commenting on this models explains that all scenarios are conservative taking into account the current downturn in oil prices and production level as per OPEC and the rest of producers. The pattern possibly has the potential for capturing short term movement and can inform sharp adjustment in spending and expectations. If conditions turn most likely case scenario, possible fiscal stance in terms of surplus is adequate enough to cushion planned deficit internally, have limiting fiscal risk and exposure. But with reference to figure 3, the fiscal year's resultant oil surplus which coincided with the short-long periods oil shocks remains ever the most worrisome case since 2005 and across OEC's in discourse. This further informs on the need to decouple government revenue from high volatile oil revenue by sustaining non-oil economy and more strategic & productive maximization of oil windfall.

Impact Analysis of Macroeconomic Changes

Reliance on oil revenue particularly when it makes up a large share of total revenue renders short run fiscal management objective, budgetary planning and, efficient use of public resources difficult. Oil rich countries face challenges arising from the fact that oil revenue is exhaustible, volatile and uncertain, and largely originate from abroad. This practically complicates macroeconomic non-oil balances. The

fiscal policy challenges largely stem from the volatile and unpredictable oil prices. In the words of Serven, the dependence on oil as a major source of export earnings and government revenue confronts policy makers in oil producing countries with short run issues on how to address sharp and unpredictable variations in oil prices and revenue and how to use oil revenue in developing the economy. Factors such as inflation rate draw high attention.

Fig.4: Selected Macroeconomic Indicators of OECs

(A) General Government Balances (% of GDP US)					(B) Total Government Expenditure (% of GDP)				
Fiscal Year	Nigeria	Saudi Arabia	Russia	Kuwait	Fiscal Year	Nigeria	Saudi Arabia	Russia	Kuwait
2013	2.077	9.554	0.301	16.56	2013	26.957	35.69	36.296	43.348
2012	2.534	15.289	0.786	20.996	2012	27.072	33.366	36.609	39.633
2011	2.147	12.559	1.877	20.348	2011	29.177	35.088	35.833	38.663
2010	-5.637	3.382	-3.134	16.361	2010	26.603	38.635	38.051	43.147
2009	-8.346	-1.925	-5.956	18.087	2009	27.207	40.044	41.354	42.194
2008	7.306	30.982	5.075	11.094	2008	25.709	28.966	34.296	40.407
2007	2.623	14.789	6.751	25.528	2007	25.299	31.565	33.102	30.108
2006	9.17	25.304	8.881	19.182	2006	23.345	29.312	31.147	31.914
2005	15.798	22.525	9.011	24.821	2005	23.322	30.50	32.803	28.119

(C) Inflation (Average Consumer Price Change)					(D) GDP Growth (Constant Price, US \$)				
Fiscal Year	Nigeria	Saudi Arabia	Russia	Kuwait	Fiscal Year	Nigeria	Saudi Arabia	Russia	Kuwait
2013	10.672	3.74	6.863	3.326	2013	7.361	4.385	3.371	1.055
2012	12.217	2.857	5.063	2.925	2012	6.332	6.806	3.40	5.082
2011	10.841	3.749	8.443	4.747	2011	7.256	6.479	4.30	6.304
2010	13.72	3.801	8.854	4.009	2010	7.976	7.834	4.50	-2.371
2009	12.543	4.147	11.64	3.952	2009	6.96	1.829	-7.80	-7.076
2008	11.581	6.10	14.108	10.622	2008	5.984	8.427	5.348	2.48
2007	5.413	5.042	9.007	5.465	2007	6.972	5.982	8.535	5.992
2006	8.218	1.927	9.679	3.092	2006	6.211	5.577	8.253	7.52
2005	17.856	0.583	12.683	4.12	2005	5.393	7.256	6.385	10.076

Source: IMF, WB, UN, OECD, CIA World Fact book, in ternete World Statistics, The Heritage Foundation & Transparency International

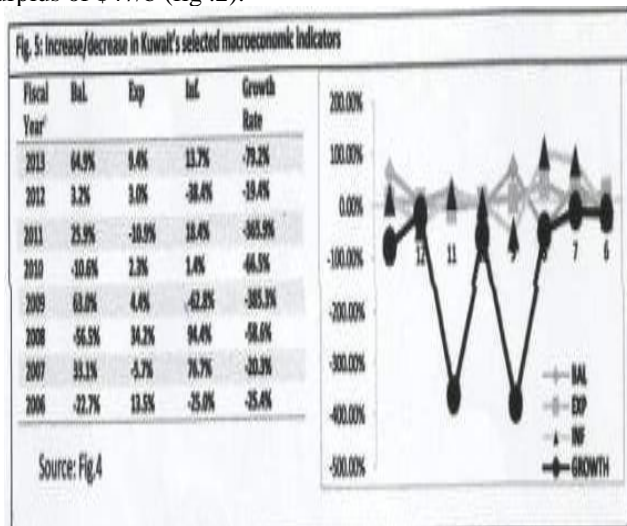
Source: SAMA, OPEC & Global Research (as quoted in Omar et al, 2009)

According to Michael, Francois and Juan (2009), the rise in inflation has been driven by a combination of global and domestic factors. Global factors include increasing commodity prices, in particular oil and food prices, which have led to a rise in inflation worldwide. In recent years the weakness of the US dollar has been another factor contributing to inflationary pressure in many oil-exporting countries because of their exchange rate regimes. The key domestic factor has been buoyant domestic demand in the wake of high oil prices, accompanied in many cases by rapid money and credit growth. Indeed, some correlation is observable between real public expenditure increases in oil-exporting countries over recent years and inflation rates. Therefore, special nature of oil-dependent economy can inform selected approach for the analyses of fiscal policy challenges they face. In terms of this, Omar et al. suggest the use of non-oil balances together with the overall balances. This segment of the paper dwells on assessing the rate of increase/decrease in selected macroeconomic indices, including growth rate, overall general government balances, total expenditure, and inflation rate of each OEC (figures 4a-d).

Kuwait

Kuwait is a small, oil –rich country nestling at the top of the Gulf Corporation Council (GCC), flanked by large or powerful neighbours-Saudi Arabia to the south, Iraq to the north and Iran to the east. Petroleum accounts for nearly half of GDP, 90% of export revenues, and 95% of government income. Despite large oil revenues, the economy has been badly affected by the global financial crisis (BBC, 2014). Economic policy-making had been held back by disputes. According to Yousef (1996), the major jumps in the price of oil during 1973-74 and 1979 gave GCC countries a historic opportunity to achieve sustainable economic development with diversified high value-added economic sectors, with their oil revenues jumping from \$8 billion in 1972 to \$150 billion in 1980. He notes that these huge financial resources, unfortunately, were squandered, leaving the economy as it were thirty years ago. The foregoing facts relate well to the fig

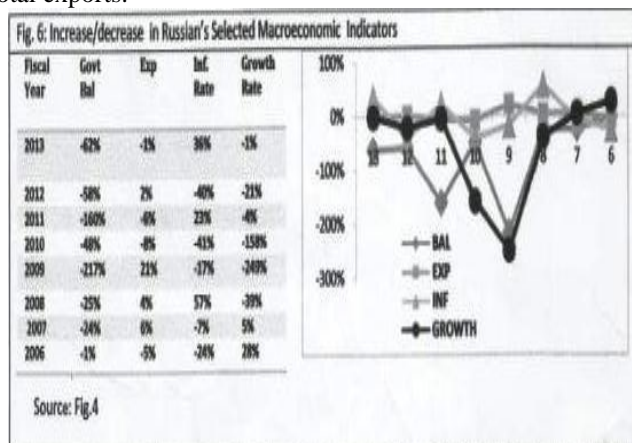
5. Although the overall net balances remains positive at an average of 12.54% for the review period, growth has remained virtually less impressive despite high government expenditure especially, since 2007. Fiscal government balance dropped significantly in 2008, with sluggish recovery from 2009. This is despite that the economy experienced the largest crude surplus of \$47/b (fig .2).



Also, inflation heightened in 2008 at 10.6% with an impact rate of 94% over 2007 fiscal year (fig 5). The gradual reduction in inflation rate at 3.8% average of 2008-2015 with average net impact of -13.46% reflect the government ability to improve general balances with the period at 18.4% average, but public expenditure continues to take upward swing while growth rate fails drastically. Syed (2014) observes: "these imbalances are partially or wholly linked to the exchanged relationship with the size and nature of the role played by the government in economic activity, which has resulted in the oversized growth of its administrative sector and the complication of procedures – thus hindering sustainable growth,"

Russia

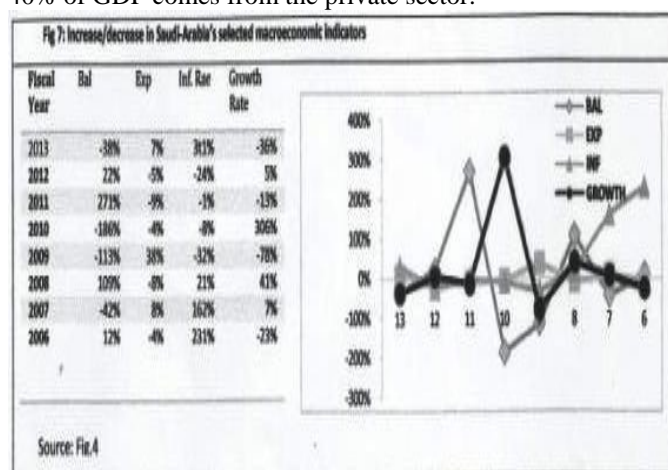
Russia is a mixed economy with state ownership in strategic areas of the economy. Market reforms of the 1990s privatized much of Russian industry and agriculture, with notable exceptions in the energy and defense-related sectors. Russia is unusual among the major economies in the way it relies on energy revenues to drive growth. The country has an abundance of natural resources, including oil, natural gas and precious metals, which make up a major share of Russia's exports. As of 2012, oil and gas sector accounted for 16% of the GDP, 52% of federal budget revenues and over 70% of total exports.



Russia net average general balance remains at 74% decrease between 2005-2013. Growth has remained virtually less impressive since 2009 with a sluggish upward movement. The decline in growth in 2009 is predicted on rapid decline in fiscal crude surplus 63% (crude supply = \$12/b) compared to \$32/b in 2008 (fig. 6). Also, inflation heightened in 2008 & 2009 fiscal year, the severe shortfall in crude supplies could have curtailed public spending, but this was high at 41.35% of GDP, while growth rate followed an inverse relationship and impacting the economy at about 249% (fig.6). This informs on fiscal policy risk of budget depending on volatile oil revenue.

Saudi Arabia

Saudi Arabia has an oil-based economy with government controlling major economic activities. Saudi Arabia possesses 18% of the world's proven petroleum reserves, ranks as the largest of petroleum, and plays a leading role in OPEC, although its influence has waned in recent years. The petroleum sector accounts for roughly 92.5% of budget revenues, 55% of GDP and 90% of export earnings; about 40% of GDP comes from the private sector.

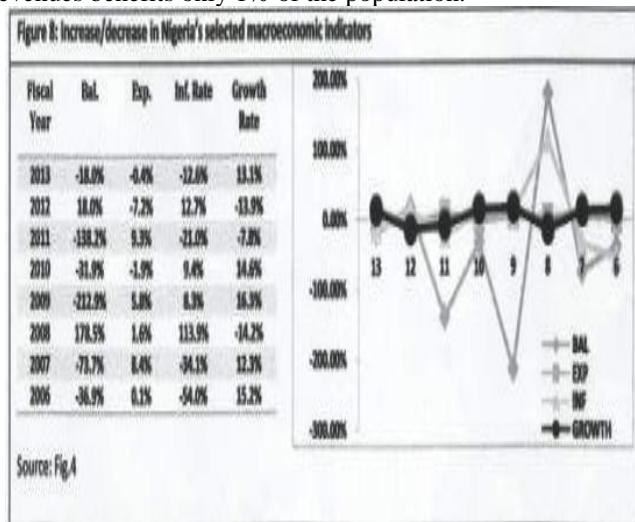


Saudi Arabia's net general balance remains at huge decrease from 2009 to 2010 and impacting the economy at an average rate of 149.5%. Recovery between 2011 & 2012 is predicted on the up-swing in crude surplus and more conservative government spending. Saudi Arabia was most hit in the aftermath of 2008 fiscal year with sharp decline in crude surplus of 93% between 2008/2009. The 41% impact rise in growth in 2008 (fig.7) is predicted on the surplus crude of \$48/b, but this however produced highest inflation rate of 6.10% with subsequent ugly development leading to growth rate and general balance decline in 2009 by 78% and 113% respectively. IMF (2014) reveals that total government expenditures increased from US\$1.6 billion in 1970 to US\$158.9 billion in 2010 (a 9,800 percent increase in nominal and 1,700 percent increase in real terms) in order to meet continuing increase in demand due to population growth and higher standards of living. Despite this fact, unemployment has remained high in recent years. This underlines the importance of the composition of government spending and how it could be altered to encourage private-sector-led growth and reduce unemployment.

Nigeria

Nigeria is a middle income, mixed economy and emerging market, with expanding financial, service, communications, and technology and entertainment sectors. It is ranked 26th in the world in terms of GDP (nominal: 30th in 2013 before rebasing, 40th in 2015, 52nd in 2000), and is the largest economy in Africa (based on rebased figure announced

in April 2014) Economists refer to the coexistence of vast wealth in natural resources and extreme personal poverty in developing countries like Nigeria as the “resource curse” (an abundance of natural resources which fuels official corruption resulting in a violent competition for the resource by the citizens of the nation). Nigeria’s exports of oil and natural gas at a time of peak prices have enabled the country to boost merchandise trade and current account surpluses in recent years. Reportedly, 80% of Nigeria’s energy revenues flow to the government; 16% cover operational costs, and the remaining 4% go to investors. However, the World Bank has estimated that as a result of corruption 80% of energy revenues benefits only 1% of the population.



Nigeria’s fiscal position in terms of general government balances remains less impressive, especially since 2009. There is no doubt that increases in crude surpluses since 2005 has sustained increase in government expenditure (figure 4d). However, the fiscal illusion is also present in Nigeria. High crude surplus of \$ 39/b in 2008 yielded hyper inflation outbreak of 11.6% posing net impact of 113.9% on the economy over the previous fiscal year. Taking into account differences in size, magnitude, and the tools to deal with these problems, OEGs face similar challenge in discussions that follow.

The Structure of Public Spending and Timing

According to Michael et al. (2009), improving the structure of public spending requires the focusing of expenditure increases on investment, while at the same time containing consumptive expenditure, adding that capital expenditure needs to be concentrated in those areas that represent bottlenecks in the economy and thus contribute to inflationary pressure. They advocate optimizing the phasing of public spending, which entails giving priority to public spending (in particular investment) that helps to alleviate bottlenecks in the economy and increase its absorptive capacity and postponing other less urgent public investment to periods with lower inflationary pressure. Although the timing of public investment tends to be difficult to fine-tune, recent economic developments provide a good example. In their view, in 2007-08 public investment might have added to rising inflationary pressure, but it may be much less problematic from a cyclical point of view in 2009-10 in the wake of the global economic downturn, lower oil prices and receding inflationary pressure, and may even be a welcome contribution to stabilizing the domestic and global economy. As the present paper illustrates in fig4. The inability of increased expenditure for most OECs to match with growth could be

predicated on the structure and prioritization of spending and, investment timing. Growth continues to move insignificantly even after crude price rise as a result of proceeding inflationary pressure hence, eroding spending on investment. Therefore, timing is activity driven. The paper however argues that, in an oil economy, the effective functionality of the budget is highly desirable in the light of absorptive capacity of the impact of trendy economic volatility; otherwise the budget tends to stimulate stereotyped form of spending even when inflationary pressure tends to respond pro-cyclically. In other words, focusing on development related spending needs as described above would help to calibrate fiscal policy in a way that is more conducive to macroeconomic stability.

Institutional Responses

The common institutional practices of oil-exporting countries in responses to mitigating fiscal challenges vary. These institutional responses are (i) setting up budgets on the basis of conservative oil price assumptions, (ii) establishing oil stabilization and savings funds (OSSDs) and (iii) introducing implicit or explicit fiscal rules.

Setting up budgets on the basis of conservative oil price assumptions

This practice has been discussed above and illustrated with fg2. While it leads to fiscal prudence and is often motivated by political economy considerations, it on the other hand reduces fiscal transparency and increase the leeway for the executive to spend. This is because if higher revenues based on more realistic oil price assumptions were used and the initial budget show large surpluses, it would be more difficult for the authorities to resist various pressures to increase expenditure

Oil Stabilization and Savings Funds (OSSF)

Most oil-exporting countries have set up oil stabilization and/or savings funds which manage part of the country’s foreign assets and usually invest them more aggressively than Central Banks invest traditional foreign exchange reserve. Apart from this investment return motive, the establishment of these funds is mainly driven by fiscal policy considerations. According to OECD, the stabilization function of oil funds addresses the short-term challenges of fiscal policy and aims to make the conduct of policy less volatile and less pro-cyclical by de-linking public spending from oil prices. When oil prices are high, the funds may also help contain inflation and avoid over-heating in the economy. When oil price are low, they provide a buffer for “rainy days”, as governments can draw on the fund and thus prevent sharp and potentially disruptive adjustments in expenditure. The savings function of oil funds addresses the long term challenges of intergenerational equity and fiscal sustainability that accompany non-renewable resources. The revenue from accumulated financial assets can replace income from oil once those resources are exhausted.

- The oil fund of Nigeria, (Excess Crude Oil Account –ECA) established in 2004, is solely a stabilization fund. The main rationale behind the Excess Crude oil account is to close budget deficits due to oil price volatility, and potentially to fund domestic infrastructure investments, as the infrastructure gap is a major impediment to growth in Nigeria. The revenues in excess of the budgeted oil price and production level are transferred into the Excess crude oil account, which is held at the Central Bank in the names of the various government entities, as Nigeria is a federal state. Lack of adequate institutions and support by federal and state government limits its efficacy and objectives.

• The oil fund of Russia (Oil Stabilization fund) was established in 2004 following the adoption of the Budget Code of the Russian Federation in December 2003. It is a cross between a stabilization and a savings fund with the objectives of financing the federal budget deficit if the oil price falls below the reference price. In addition to the unspent fiscal surplus of the previous year, the financing of the stabilization fund held at the Central Bank comes from two sources: oil export duties (in excess of a reference price) and the mineral extraction tax. However, oil funds pose a number of challenges of their own, including with regard to governance, transparency and accountability, and are not a panacea for the fiscal challenges of oil-exporting countries (Klaus, 2012). They are not a substitute for explicit fiscal policy decisions or fiscal rules and political commitment both to smoothen expenditure and to ensuring long-term fiscal sustainability. Furthermore, their contribution to sound fiscal policies depends on the general quality of institutions and public financial management. In countries where oil funds seem to have enhanced fiscal prudence, the effect might simply be ascribed to self-selection effects. Nevertheless, there is some evidence that oil funds are conducive to reducing macroeconomic volatility. This may be attributed to the fact that OSSDs tend to be used as a tool for neutralizing the monetary impact of oil-related capital inflows (i.e. for keeping oil revenues outside the domestic banking sector).

Fiscal Rule

According to Klaus, fiscal rules are adapted to attain one or more of three objectives: sustainability of public debt, control of government size, and contribution to cyclical stability. A recent world-wide panel data study by Elbadawi et al. (2011) provides empirical evidence on why countries adopt and maintain rule-based fiscal policy regimes. Their report shows that fiscal conditions, government stability, inflation targets, fixed exchange rates, global financial integration, democracy, political checks and balances, and overall development raise countries' likelihood to adopt fiscal rule. Fiscal rules can be quantitative i.e. provide numerical benchmarks for one or more key parameters of fiscal policy with the aim of limiting political discretion, or procedural, i.e. aim at improving budgetary institutions and management. Nevertheless, Michael et al. (2009) contend that it is increasingly acknowledged that carefully designed fiscal rules can constitute a helpful device to foster fiscal discipline. Given the volatility of oil revenues and the tendency towards pro-cyclical fiscal policies in oil-exporting countries fiscal rules could be particularly useful for guiding fiscal policy in oil-exporting countries, while at the same time, the choice of an appropriate numerical indicator is challenging given the impact of oil price fluctuations on the budget.

Methodology

This paper adopted a quantitative approach, using historical economic data from OECs and, with the use of Spearman's Rank Correlation to test hypothesis one; and multiple regression test for hypothesis two. The sample size, $n=9$. The models in equation (i) and (ii) specified below respectively predict that economic growth (G) is a function of fiscal oil surplus (P_1) for H_{01} and this was measured with statistical technique (a), and economic growth (G) is a function of fiscal oil surplus (P_1) and crude oil price (P_2) for H_{02} which was measured with statistical technique (b) as contained in the box below.

From fig. 9(a), the contingency table showed data (G) and average crude oil surplus (P_1) to test the hypothesis that fiscal

policy has not impacted significantly on the economic growth of oil exporting countries. At first glance, the test did not show a significant relationship between oil surpluses and economic growth. The SPSS generated result of the Spearman's correlation coefficient (Rho) produced a coefficient of .109 which is less when compared with Rgo-table of 0.6833 (i.e. Rho at $(n,a) = (9,0.05)$). Based on this, H_{01} is accepted which is indicative that fiscal policy of OECs has not significantly impacted on their economic growth.

$$G = f(P_1) = b_0 + b_1P_1 + \dots + b_kP_k + U \quad (i)$$

$$G = f(P_1, P_2) = b_0 + b_1P_1 + b_2P_2 + \dots + b_kP_k + U \quad (ii)$$

Where:

$$(a) \quad R_c = 1 - \frac{\sum d^2}{n(n^2-1)}$$

which is compared with Spearman's Rank Correlation Tabulated (Rt) Value for test of hypothesis.

$$(b) \quad b = \frac{\sum X_i Y_i - \frac{\sum X_i \sum Y_i}{n}}{\sum X_i^2 - \frac{(\sum X_i)^2}{n}}; \text{ Test Statistic } (T - \text{cal.}) = \frac{b}{S.E(b)} \text{ where Standard error } (S.E) = \sqrt{\frac{\sum Y_i^2 - \frac{(\sum Y_i)^2}{n}}{\sum X_i^2 - \frac{(\sum X_i)^2}{n}}}$$

The Null hypotheses H_{01} , H_{02} would be respectively rejected, at 5% level of significance if:

$$R_c > R_t \text{ for } H_{01} \text{ and } T\text{-cal.} > T\text{-tab for } H_{02}$$

Fig. 9(a): Contingency Table

Fiscal Years	2013	2012	2011	2010	2009	2008	2007	2006	2005
Average Growth Rate (G)	3.99	5.43	6.33	4.38	3.52	5.53	6.87	6.87	7.28
Average Crude Oil Surplus (P_1)	26.25	40.75	43.25	27.50	14.75	41.50	27.75	25.75	25.00

Source: Figs. 2 and 4d

Question: To what extent has oil surpluses of OECs impacted on their growth level?
Hypothesis: H_0 : Fiscal policy has not impacted significantly on the growth level of oil exporting countries

Fig. 9 (b): Spearman's Rank Correlation Coefficient

Spearman's rho	OECs Growth Rate	Crude Oil Surplus		Crude Oil Price		Crude Oil Surplus	
		Correlation Coefficient	Std. Error	Correlation Coefficient	Std. Error	Correlation Coefficient	Std. Error
		1.000					
				1.000			
						1.000	

surpluses and the economic growth level of oil producing countries was not significant.

i. Crude oil prices (international crude oil prices) did not impact more on the economic growth of oil exporting countries than crude oil surpluses. The multiple relationships confirmed that crude oil prices had showed an inverse relationship with growth rate, with oil surpluses indicating moderate positive relationship.

ii. Inflation and government spending had increased tremendously in oil exporting countries during upswings in oil surpluses and prices.

Conclusion

This study reveals some critical facts about the fiscal policy of oil exporting countries (OECs). First, fiscal policy of OEC had not significantly impacted on their economic growth. It also showed that inflation and government spending increased tremendously in oil exporting countries during upswings in oil surpluses and oil prices. There are implications these may suggest. First, fiscal policy of OECs tends to be largely driven by government through the budget, with insignificant private sector leadership. Second, fiscal policy of OECs highly volatilizes the budget and broadens fiscal risk. Consequently, there is lack of empirical evidence to uphold that fiscal policies of OECs have significantly impacted on growth. These are to some extent the result of the specific long and short-term challenges of fiscal policy in resource-rich countries. The paper contends that OECs face greater fiscal policy challenge owing to the weak budget performance and structure, and line with IMF (2014). It is of the opinion that government spending could be altered to encourage private sector-led growth and reduce unemployment. Considering the exhaustibility and finiteness of oil rent, it is indicative that in the area of equitable allocation of oil revenue, lack of functional fiscal institutionalization and framework are potential to lead an economy to intergenerational fiscal crisis.

Recommendations

There is need for the government of OECs to have a more transformative perception of the budget. The budget should be seen as a “means” but not an “end” towards achieving positive fiscal outcome. Strong fiscal institution must be functionally developed at all levels of government. It is advocated that oil revenues spending by way of allocation by government should be in form of social investment fund whose returns are expected by way of social welfare and economic services which are subject to strict and target-based appraisal, while the private sector is actively supported to drive the economy. Where these growth functions are alternated, natural fiscal crisis persists. Based on this scenario, government should become the Growth channel while the private sector becomes growth driver for positive policy outcome.

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