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Transforming Natural Resource Wealth into Sustained Growth and Poverty Reduction

A Conceptual Framework for Sub-Saharan African Oil Exporting Countries

Achille Toto Same

The World Bank
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Abstract

Oil and mineral revenues raise national savings and hence facilitate investment, capital accumulation, and sustained growth; thus, there are benefits of owning large natural resources. There can be a significant spillover effect from the oil sector to the non-oil sector particularly if governments are committed to bridge the infrastructure gap and promote the non-oil economy and foremost the non-oil tradable sector. Consequently, the capacity for coordinated policy formulation and execution is fundamental as well as sound windfall management mechanisms and institutions. This conceptual framework uses the case of Indonesia and the example of Norway to argue that the resource paradox is avoidable. Abundance should not be a curse, but rather a blessing for Sub-Saharan Africa's oil and mineral exporting countries. The country context and political economy matter a great deal but should not be the main driving forces behind windfall management, to avoid excessive rent-seeking activities, inefficiency, and wasteful spending. The EITI++ implementation can contribute to make a difference, mostly through capacity building, implementation assistance, and coordination support.

This paper—a product of the a product of the Poverty Reduction and Economic Management Division, Africa Region—is part of a larger effort in the department to help African Oil Producing Countries, manage and transform their natural resource wealth into long-term economic growth that spreads the benefits more fairly among their people for an effective poverty reduction. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at Atotosame@worldbank.org.

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I – Introduction

The enormous body of literature on the Resource Curse provides several explanations for the detrimental effects of natural resources particularly on growth. Among the persistent and rather robust explanations is the negative effect of real effective exchange rate appreciation due to the spending effect and subsequently the resources reallocation effect and its impact on the tradable sector.

The curse is a clear probability and a number of examples, in Sub-Saharan Africa and elsewhere, clearly indicate that context conditions have to be added to the equation when studying the exact mechanisms and transmission channels of the "curse". The curse does not strike in the same way in a country with sound institutions and good leadership as in a country with poor institutions and slack political economy environment. These contexts and conditions deserve differentiation and it is important to make a distinction between the pre-resource extraction conditions and environment, such as the general level of development and the political system and resource specific conditions, and their magnitude and relations between identity groups.

The theoretical challenge of a contextually sensitive study of the political economy of natural resources should capture complexity. This applies to dynamics and interplays between the context conditions as well as the direction and nature of the relationship. This calls for precise concepts; carefully formulated hypotheses that integrate complexity rather than simplify relationships. The political economy and the political dynamics seem to be as important as the Dutch Disease and probably in the context of Sub-Saharan Africa that is what matters the most, given their influence on the decision underlying the utilization of windfalls.

The resource curse or resource paradox is not unavoidable; a sound resource-led development strategy and well articulated and efficient public investment program (PIP) along with sound public finance management (PFM) will contribute to make a difference. In the context of an oil boom or other mineral boom, the structure of the economy is fundamentally transformed; these changes, together with the revenues from oil exports,

could set the stage for a sustained growth-path and economic development. Natural resource endowments have helped many countries (Norway, Malaysia, Botswana, Finland and Indonesia) to grow and diversify, in part by providing a basis for developing associated technologies and capital goods industries.

The governance aspect is equally important. Actually, fiscal and tax regimes, in other words, government's take on oil and mineral exploitation in Africa, are by no means uniform. A multitude of revenue extraction instruments or systems are currently in place in different countries in Africa from the government side to capture some of the benefits for the state and the public. It is therefore critical to understand the environment in the very beginning and early stages of the rent production or revenue chain by assessing the arrangements in place to eventually improve transparency throughout the revenue chain and by the same token improve efficiency and revenue allocation.

Once oil and mineral resources are secured, the next challenge is to ensure efficiency and sound allocation to promote the development process in general and poverty reduction in particular. This is done essentially through the national budget. The budget is the main vehicle and an active policy instrument in the hands of governments to promote their development strategy and poverty reduction programs through efficient allocation of resources to implement their medium-term development vision.

The immediate challenge often facing the authorities is to prepare a comprehensive development strategy to reduce poverty and foster broad-based economic growth. A well formulated and prioritized budget is critical in this regard. With substantial oil and mineral wealth, mineral-rich countries should be able to make rapid progress toward the development process and poverty reduction. Windfalls or oil and mineral rents are in principle channeled through the national budget, and should be integrated into the budget; therefore, the quality of budget execution matters. Nonetheless, the quality of budget execution depends on the quality of budget preparation.

As a matter of improving the overall development performance of mineral-rich developing countries, the World Bank recently launched (on April 2008) the Extractive Industries Transparency Initiative Plus Plus (EITI++) initiative, which aims at helping developing countries, particularly African countries, manage and transform their natural resource wealth into long-term economic growth that spreads the benefits in the country. The initiative is the perfect framework for mineral rich countries in Africa, provided that the initiative is successfully carried out.

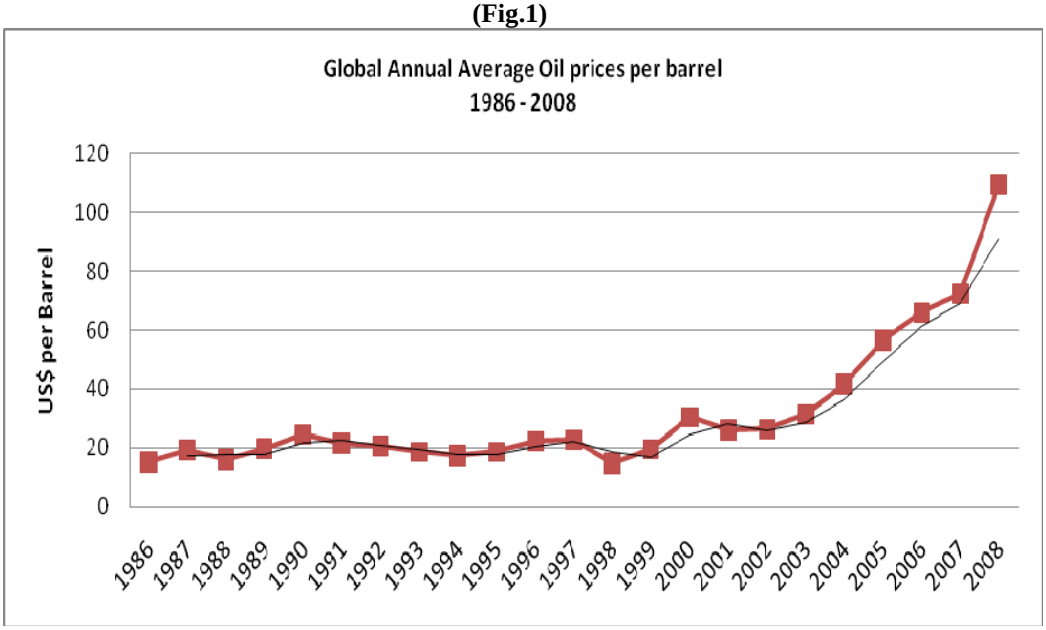
The EITI++ in addition to improving transparency and accountability will rightly focus on the resource chain, including managing revenues and promoting sustainable and efficient utilization of natural-resource wealth. It could provide governments with a range of options including technical assistance and capacity building for improving the management of natural-resource-related wealth for the benefit of the overall economy and notably the implementation of good policies to promote sustained growth and poverty reduction.

The purpose of this conceptual framework is an attempt to provide a comprehensive approach that could contribute to address the resource paradox and promote sustained growth and hence durable poverty reduction in Sub-Saharan Africa (SSA). It aims to draw from international experience, country specificities, SSA's context, and the very nature of natural-resource abundance. This could eventually support the EITI++ implementation.

II – Sub-Saharan Africa's Oil Exporting Countries' Sustained Growth Path: Setting the Stage

The common feature of all oil exporting countries in Sub-Saharan Africa is a noticeable lack[1] of a meaningful improvement in terms of poverty reduction, characterized by poor access to basic services and uneven overall development, despite enormous revenues accruing to governments since the mid-1960s and the early-1970s for some countries like Nigeria and Gabon. The boom and bust cycles are used often as a predicament for lack of investment predictability and steadiness given the volatility of oil prices and the dependence of SSA's oil exporting countries on oil revenues. Notwithstanding, oil prices for the past two decades have been more or less stable or have tended to soar (Fig.1), as has been the case since 2000 and more so since 2004.

(Fig.1)



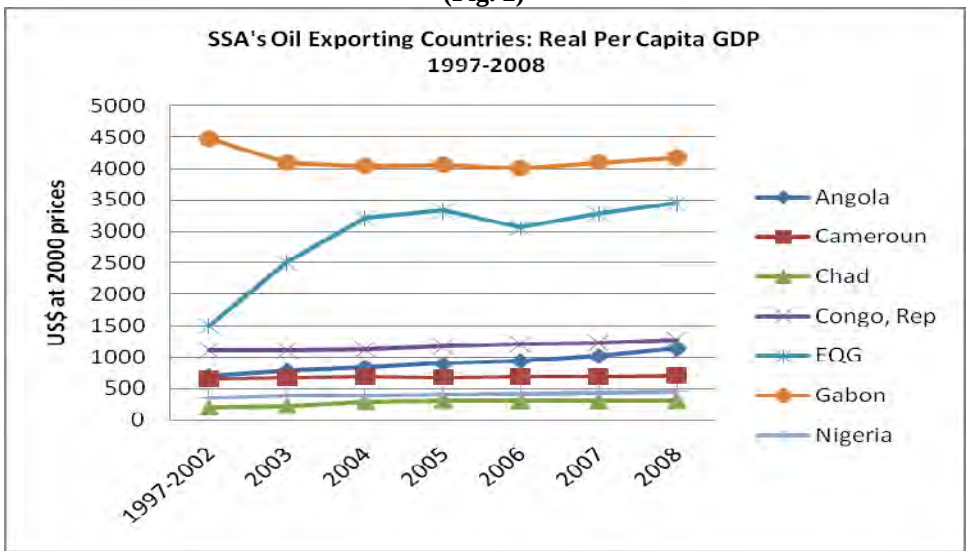
Sources: Official US Government Energy Statistics and Author's calculations

In terms of real per capita GDP (Fig.2), there has been an overall improvement and in some cases noticeable improvement, as has been the case of Congo Republic, Gabon, and more significantly Angola and Equatorial Guinea. However, this improvement in per capita GDP is yet to be translated into real poverty reduction, and a clear path to sustained growth and development. In addition, the substantive

[1] If compared to Indonesia or Malaysia.

improvement in per capita GDP noticed in several of SSA's oil exporting countries can be explained by the magnitude of oil revenues relative to the size of their population. This is not to discount Nigeria's poor performance in terms of real per capita GDP, particularly because Nigeria is by far the largest oil exporting country in Africa and has been in this position since the mid-1960s. Nigeria's per capita GDP in 2000 remained at its 1965 level, about US$325 per capita GDP, after having spent more than US$350 billion in oil revenues. The amount spent did not seem to have changed or added significantly to the standard of living.

(Fig. 2)



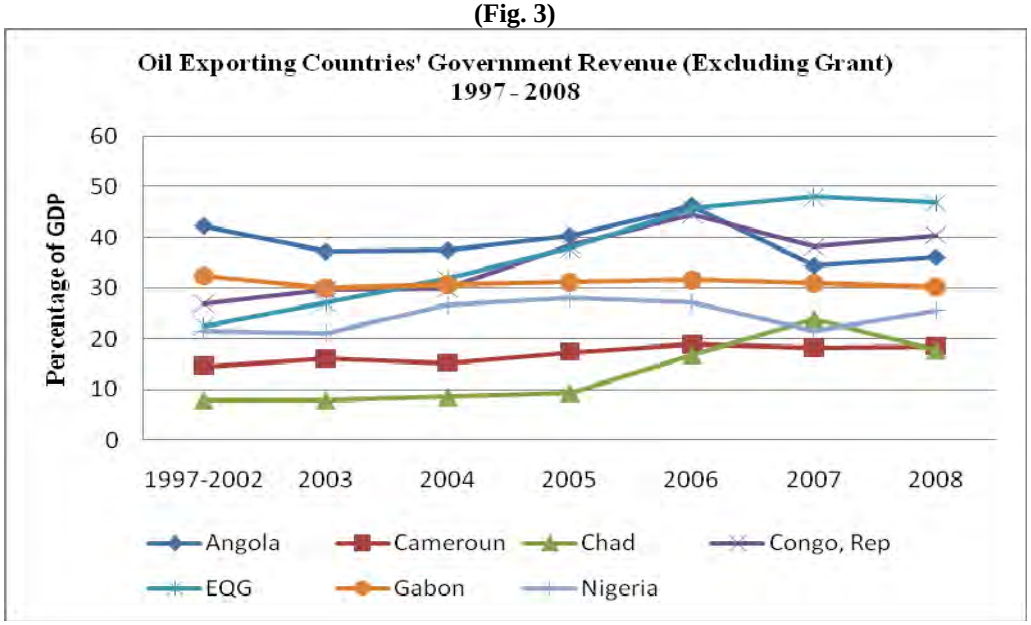
Source: World Economic Outlook database, IMF.

Another characteristic common to all SSA's oil exporting countries is the significant level[2] of government revenue proportional to GDP (Fig.3), with the notable exception of Cameroon, which is somehow atypical given that Cameroon[3] is one of the most diversified economies in SSA in addition to being an oil exporter with a wide and sophisticated fiscal base. A comfortable level of government revenue is a critical advantage to promote the development process. In that context, a sound resource-led development strategy and well articulated public investment program (PIP) could

[2] Chad is the latest SSA's country to become oil exporting country. Since the on-stream of oil in 2004, there have been some improvements.
[3] Excluding South Africa and Nigeria.

contribute to make a difference, provided that the promotion of the tradable sector remains the cornerstone of the development strategy.

(Fig. 3)



Source: World Economic Outlook database, IMF.

Similarly SSA's oil exporting countries also display a comfortable level of domestic saving rate relatively to GDP, again with the notable exception of Cameroon. I benchmarked oil exporting countries against SSA's middle-income countries[4] including South Africa, also known as the most successful in Africa, to underline the remarkable level of oil exporting countries' domestic saving rate. It should be mentioned that some middle-income countries are also successful mineral-rich countries, like Botswana, with a sizable domestic saving rate, and South Africa, a different type and level of economy.

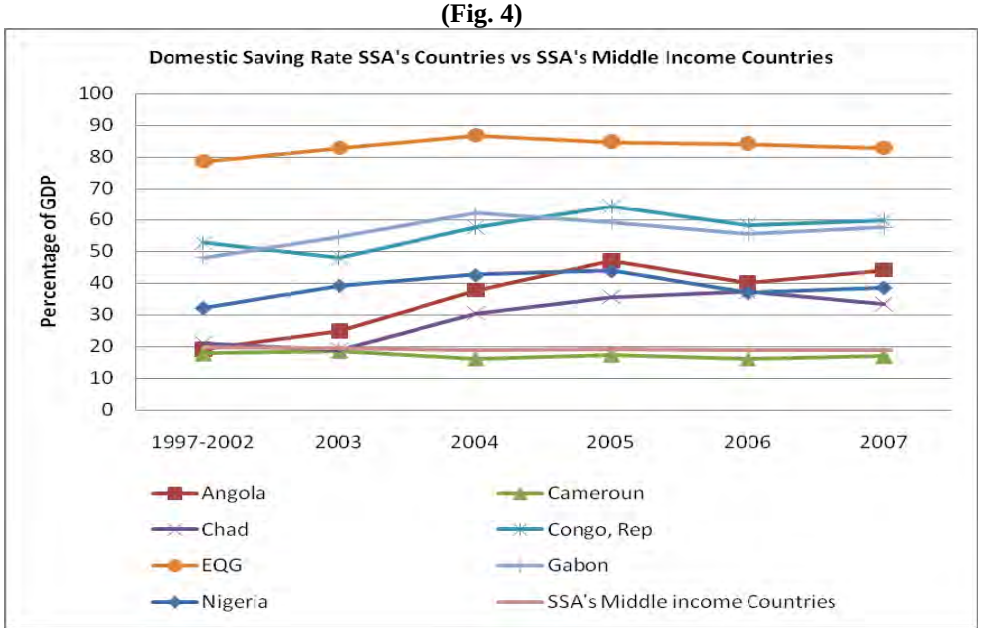
The domestic saving rate is noteworthy because of the overall saving and investment gaps the continent as a whole is facing, in other words the structural constraint[5] that impedes a possible sustained growth path as has been the case of Indonesia or Malaysia. The good level of domestic saving - thanks to oil exploitation - is

[4] SSA's middle-income countries excluding South Africa are: Botswana, Cape-Verde, Lesotho, Mauritius, Namibia, Seychelles, and Swaziland.

[5] SSA's oil exporting countries and for that matter other mineral-rich countries in Africa are less constrained by the lack of saving and foreign reserves therefore should be able to make substantive investment decisions for poverty reduction.

therefore a critical macroeconomic advantage for SSA's oil exporting countries and grounds for the substantive investment necessary for a sustained-growth-path and durable poverty reduction (Fig. 4).

(Fig. 4)



Source: World Economic Outlook database, IMF.

Countries in SSA are unlike the United States and other advanced countries, where domestic saving[6] does not matter very much for investment because these countries are able to attract enormous flows of foreign direct investment and portfolio investment.[7] As such, they are capable of compensating for the weak level of national saving. This is not the case when it comes to SSA. The level of national saving needs to be increased to sustain investment in SSA and, although investment is not the sole engine of growth, notwithstanding, capital accumulation remains a centerpiece of that process. In general, it is difficult to find countries that have been able to grow at high and sustained rates for long periods without an important effort in capital formation or (using another word) sustained investment. SSA's oil exporting countries, because of their comfortable level of domestic saving, are less constrained by the generally weak level of saving in SSA.

[6] However, a certain level is required for basic macroeconomic fundamentals.
[7] In aggregate, FDI and portfolio investment are nevertheless international savings.

Investment is the centerpiece of growth; consequently ensuring an adequate level of saving[8] should remain a central policy concern, particularly for SSA economies, where foreign investors seem reluctant to invest beyond investment in extractive industries. Traditional development theory since WWII has emphasized the very fact that the long-run rate of economic growth is largely dependent on the saving rate. Saving determines investment, and they reinforce each other—technological change is implicitly taken as a function of investment—and thus, the rate of capital accumulation, which is the basic determinant of long-run growth (Chakravarty 1993; Marglin and Schor 1990). The notion that raising the investment rate is a key parameter to increasing long-run growth or sustained growth has been at the heart of growth thinking since David Ricardo.

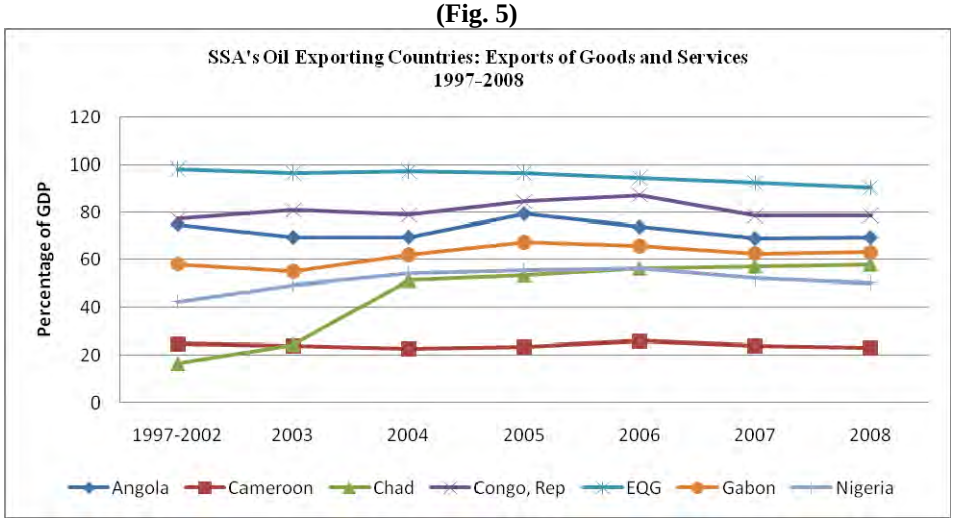
Correlatively, a comfortable level of exports is critical in developing countries to sustain an adequate level of necessary imports. It is indispensable to import basic technology to break the supply side constraint and to modernize the structure of production. This is more so in SSA, which is characterized by a narrow export base and weak export performance. Thanks to oil exploitation in SSA's oil exporting countries, the level of exports to GDP is more than comfortable. In SSA's good oil exporting countries, overall export performance proportionally to GDP is an additional substantive advantage for their development financing toward a sustained growth path.

Industrial productivity in Tanzania, for example, was hampered by the weak capacity to export (Ndulu 1986; Devarajan, Easterly, and Pack 1999). At Tanzania's independence, more than 80 percent of the manufactured goods consumed in the country were imported, and the manufacturing sector accounted for only 4 percent of GDP. A succession of government plans placed heavy emphasis on import-substituting industrial investments for basic consumer goods, construction, and related capital goods. Between 1965 and 1980, real investment in manufacturing grew by 21 percent a year. And in 1986–90, investment rose to the remarkable level of more than 100 percent of manufacturing value added. Despite this massive expansion, output per worker fell as

[8] Regardless of whether saving is the main force driving growth, ensuring adequate levels of saving is fundamental to provide sufficient financing for investment and to avoid balance-of-payments disequilibria and unnecessary debt burden.

production rose slowly and capacity utilization collapsed. The most important factor appears to have been a critical shortage of imported inputs and spare parts following the balance-of-payments crisis after 1974. Tanzania's industrial drive failed because investment could not generate enough manufactured exports to fund continuing imports of the materials needed to sustain production. This backdrop is not likely to be the case of SSA's oil exporting countries given their good export performance (Fig. 5).

(Fig. 5)



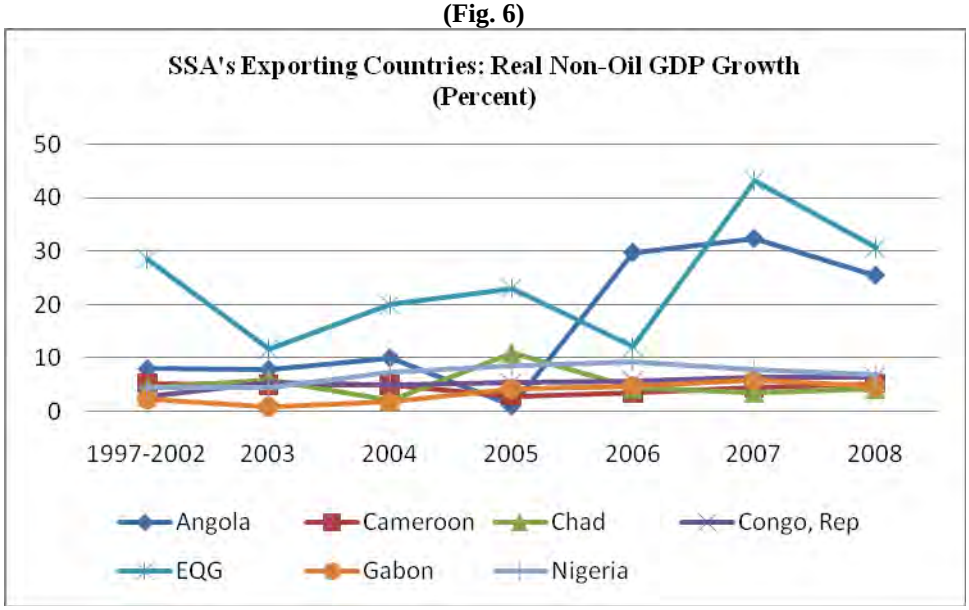
Source: World Economic Outlook database, IMF.

Imports are indispensable inputs in developing economies; therefore, they should be treated explicitly as a factor of production in long-run growth models. Hence, the capacity to export, as a means to generate more foreign exchange resources, so as to finance the desired technology-embodied capital goods and to acquire advanced technology[9] from abroad, is fundamental for the structural transformation (Bochove 1982). This backdrop meant to emphasize the critical importance of good export performance to fuel sound development financing as illustrated by Malaysia and Indonesia, which have been able to generate enough manufactured exports to fund continuing imports of the materials needed to sustain production. SSA's oil exporting countries could eventually put their countries on a sustained growth-path given their abundance of resources and export performance proportional to GDP.

[9] Some economists even claim that foreign technology imports are the most important factor in explaining the rapid economic growth of Taiwan (China), Korea, and other newly industrialized countries, by borrowing foreign technology rather than by generating new products or processes.

Natural resource income raises national savings and hence facilitates capital accumulation and growth; thus, there are benefits of owning large natural resources. There can be a huge spillover effect from the oil sector to the non-oil sector particularly if governments are committed to bridge the infrastructure gap and to promote the non-oil tradable sector and the non-oil economy as a whole. This is evidenced by the impressive real non-oil GDP growth from 1997 to 2008 in almost all SSA's oil exporting countries. It is more the case for oil exporting countries where oil exploitation has been intensified, for example, Angola, Equatorial Guinea, and to some extent Chad. This backdrop is not to suggest that SSA's exporting countries are on a sustained growth path - not yet - instead that there are good prospects and a credible potential; provided good economic policy implementation, including efficient resource allocation and sound public finance management to avoid wasteful utilization of resources (Fig.6).

(Fig. 6)

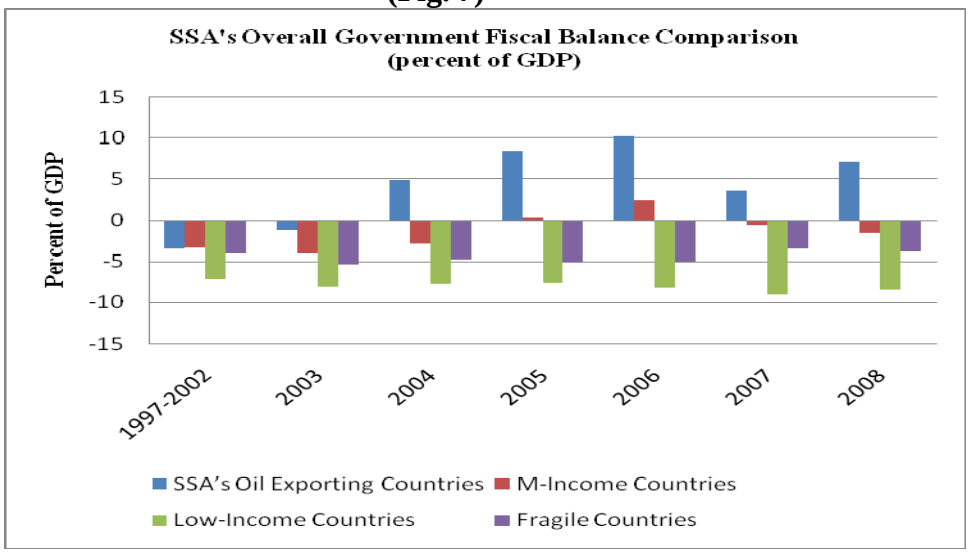


Source: World Economic Outlook database, IMF.

Another advantage of owning large natural resources and revenue is the positive impact they could have on the overall fiscal balance excluding grants (Fig.7). The overall fiscal balance is an important aggregate which gives an indication of the ability or not of a government to finance its development spending without having to resort to excessive borrowing and official development assistance; although there is a cost to development and resorting to debt could be a wise investment decision. Nevertheless, large revenues

from natural resources provide SSA's oil exporting countries with room to maneuver and much more development financing flexibility. Once again, the performance of SSA's oil exporting countries is noticeable compared to other SSA countries, including the continent's most successful countries, which are middle-income countries, like mineral-rich Botswana or Namibia.

(Fig. 7)



Source: World Economic Outlook database, IMF.

III – Back to the Main Resource-Rich Macroeconomic Impediment: The Dutch Disease

The literature and theoretical thinking on the Resource Curse provide several explanations for the detrimental effects of natural resources particularly on growth. Among the persistent and rather robust explanations is the negative effect of real effective exchange rate appreciation due to the spending effect and subsequently the resource reallocation effect and its impact on the tradable sector. Regardless of the multiplicity of resource paradox causality explanations, it seems that a full exploration of the issue remains to be undertaken in SSA to better understand the persistent overall poor development performance in oil and mineral-rich countries in Sub-Saharan Africa.

As Richard Auty rightly pointed out, econometric results on the resource curse are contradictory. Sachs and Warner (1995, 1997 and 1999) found a detrimental impact of

natural resource exports on growth, which they attributed to Dutch Disease. Acemoglu et al. (2001, 2002 and 2004) found that the nature of institutions is more important than resources. Lederman and Mahoney (2007) query both results and argue that natural resource rents boost economic growth.

The Dutch Disease can be a real disease and a source of persistent slow growth, if there is something special about the sources of growth in manufacturing (decline in leading technological-knowledge sector) with production externalities or the learning-by-doing stressed by Matsuyama (1992) where he assumed that there are increasing returns to scale in manufacturing, but not in the resource sector. Hence an abundance of natural resource makes the economy specialize in the less dynamic sector of the economy; thus the economy loses the benefits of increasing returns to scale in manufacturing, which leads to a decline in growth.

In principle the Dutch Disease[10] can be seen as a matter of one sector benefiting partly at the expense of others, therefore it is not an impediment *per se*; however the disease is potentially harmful if there is something special about the reallocation of resources between sectors, for example from high-tech service industries to low primary production (Gylfason 2001). The oil boom would therefore induce a decline in a technologically leading sector of the economy with adverse consequences for long-term growth. The resource shift can then become a true disease (Sachs 2007).

The paradox effect of natural resource abundance on the economy is commonly described as an economy experiencing an export boom, and divided into three sectors: (a) the booming export sector; (b) the lagging export sector – traditional exports - as the two traded good sectors; and (c) the non-traded goods sector, which essentially supplies domestic residents and might include retail trade, services and construction. In the presence of the Dutch Disease, the traditional export sector gets crowded out by the other two sectors (Corden and Neary in 1982).

[10] The Dutch disease is a matter of concerns mainly because of its potentially deleterious consequence for economic growth.

Abundant mineral resource-led exports lead to an appreciation of the real exchange rate by shifting production inputs (*capital and labor - resource movement effect*[11]) to the booming mineral sector and non-tradable sector (retail trade, service, and construction), thereby reducing the competitiveness of the non-booming sector (mostly agriculture and manufacturing) and hence participating in their collapse. The shift to the non-tradable sector accelerates domestic inflation[12] (*the spending effect* of the boom does increase the price of non-traded goods due to increased demand), which is responsible for the real exchange rate appreciation. These short-term macro-adjustment problems result in long-term effects on growth by reducing the country's economic diversity and increasing its reliance on exports from its natural resource sector.

Without discounting the robustness of the Dutch Disease transmission mechanisms above explained, it is however useful to go back to the original context of Dutch Disease and eventually to see how far the concept could possibly explain SSA's oil exporting countries' development impasse. Indeed, the term Dutch Disease refers to the fears of de-industrialization that gripped the Netherlands as a result of the appreciation of the Dutch currency that followed the discovery of natural gas deposits. The appreciation of the Dutch currency that followed the gas export boom reduced the profitability of manufacturing and service exports[13]. Total exports decreased markedly to GDP during the 1960s. Expansion of petroleum exports in the 1960s not only crowded out other exports, actually reduced other exports disproportionately and fueled the fears of dire consequences for Dutch manufacturing.

In fact based on existing data, SSA's oil exporting countries' manufacturing sector almost does not exist and where it does, like it is case of Nigeria, it is neither knowledge-driven nor globally competitive. It does not perform significantly better than the natural resources sector; therefore, the positive effects of linkages are negligible. This

[11] The marginal productivity of labor in the booming industry will increase and attract labor away from the non-booming industry. This change in the sectoral composition of labor is called the resources movement effect of the boom (Corden, 1982). - Managing Oil Wealth: The Case of Azerbaijan. IMF, 2004.

[12] As the matter of fact, the non-tradable sector supply is inelastic in the short term so, when demand expands and resources move into the non-tradable sector, this causes prices to increase thereby induces real exchange rate appreciation.

[13] Thorvaldur Gylfason. Lessons from the Dutch Disease: Causes, Treatment, and Cures - Institute of Economic Studies - University of Iceland. August 2001.

is clearly what I found in the case of Equatorial Guinea[14] and Chad, and it is the case of other oil exporting countries in Africa, where the manufacturing sector is yet to be developed, to provide these countries with the much needed employment. Building on this simple observation, a convincing[15] case remains to be made if the Dutch Disease could possibly be the main factor explaining the poor development performance of Sub-Saharan Africa's oil exporting countries.

Besides the simple observation above mentioned, it is not inevitable that existing natural resources prevent the emergence of a dynamic economy or that the discovery of such resource acts to dampen an already developed economy. Natural resources can be a blessing rather than a curse. Norway is a case in point. Norway is one of the leading oil exporters in the world, the country as yet to show clear symptoms of the Dutch disease. On the contrary, growth has thus far remained stubbornly high (Thorvaldur Gylfason 2001). Norway was already a developed country when oil was discovered in the 1970s.

Natural resource income may raise national savings and hence facilitate capital accumulation and growth; hence, there are benefits of owning large natural resources. Oil exporting economies have averaged twice the savings rate of non-oil exporters globally from 1960 to 1998 (Hausmann and Rigobon 2002). The position of a country before and during the influx of wealth is often a factor among the many different variables ranging from the political system in that economy to the status of other industries, if any, at the time of resource exportation. The applicability of Dutch Disease is therefore limited in context, particularly in the case of Africa, given the overall development level of these countries and the structure of their economy.

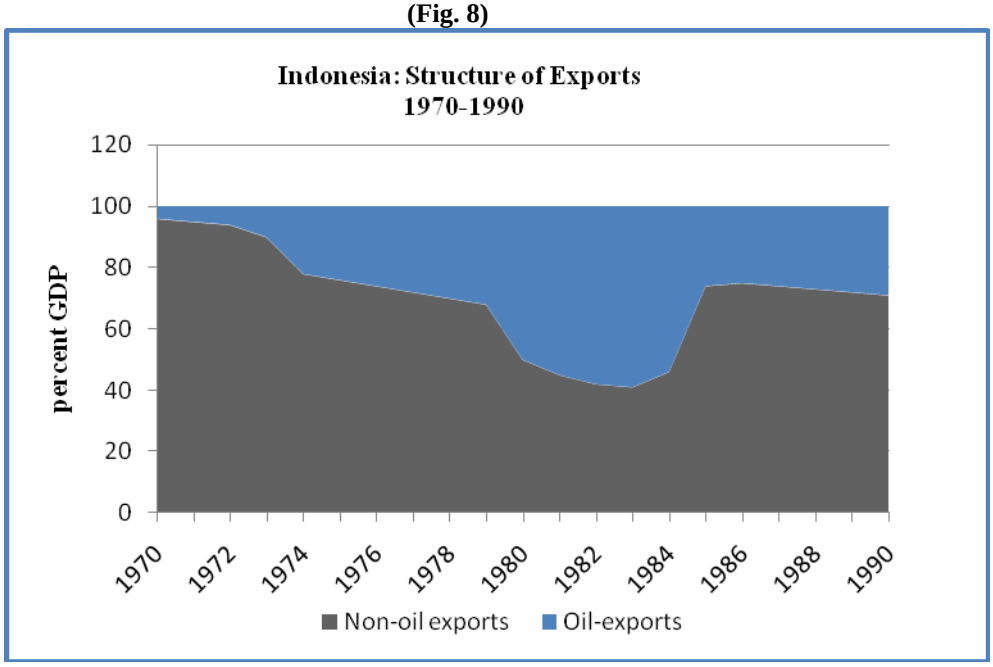
Indonesia, besides Norway, is another success story account and the country was similar to SSA's oil exporting countries in the early 1970s. With a per capita income of only $200 in 1974, Indonesia was the poorest country in the world to receive a substantial

[14] Achille Toto Same; Mineral-Rich Countries and Dutch Disease: Understanding the Macroeconomic Implication of Windfalls and the Development Prospects. The Case of Equatorial Guinea. - World Bank's Policy Research Working Paper, 4595.

[15] For more accuracy, Sachs and Warner (2001) empirically found that extremely resources-abundant countries such as Nigeria, or Mexico and Venezuela, have not experienced sustained rapid economic growth, in addition, empirical growth studies tend to confirm this casual evidence. But to which extent it is due to Dutch Disease in the case of Nigeria, remains an open question.

windfall. With weak administration of the non-oil tax system, oil provided the overwhelming bulk of government revenues before 1973. The government of Indonesia therefore had less experience than the governments of most other oil exporters in managing an economy strongly dependent on oil for foreign exchange. Notwithstanding this lack of experience, Indonesia's economic performance since 1973 has been the strength of the non-oil tradable sectors (agriculture and manufacturing) and of non-oil exports (Fig. 8); this is in stark contrast with the predictions of an economic model centering on the Dutch Disease prediction[16].

(Fig. 8)



Source: World Development Indicators Database, World Bank.

High non-oil growth rates were maintained throughout the two oil booms[17], and at least some benefits from spending the oil income seem to have spread to most segments of the population, both rural and urban. Indonesian authorities undertook prudent macroeconomic policies, which at the time required significant expenditure cuts and correction of misaligned exchange rates in order to adjust to volatility in oil revenue. Indonesia's experience with oil management stands out as relatively successful compared to other oil-exporting countries. The key factors that contributed to this success are as

[16] Indonesia: Windfalls in a Poor Rural Economy- Bruce Glassburner; University of California in Gelb (1988) World Bank.
[17] In 1973 and 1979.

follows: oil was not the only source of export earnings and export of other commodities were generating considerable income; authorities did not rely on oil sector revenues alone and tried to diversify the economy; the Indonesian government adapted macroeconomic policies to changing external environment and was committed to a broad development strategy that emphasize raising rural income and resulted in an interrupted growth (Fig.9) for three decades and the severe Asian financial crisis in the late 1990s that dampened the economy was short-lived and further demonstrated the strength of Indonesia fundamentals, evidenced by its quick recovery.

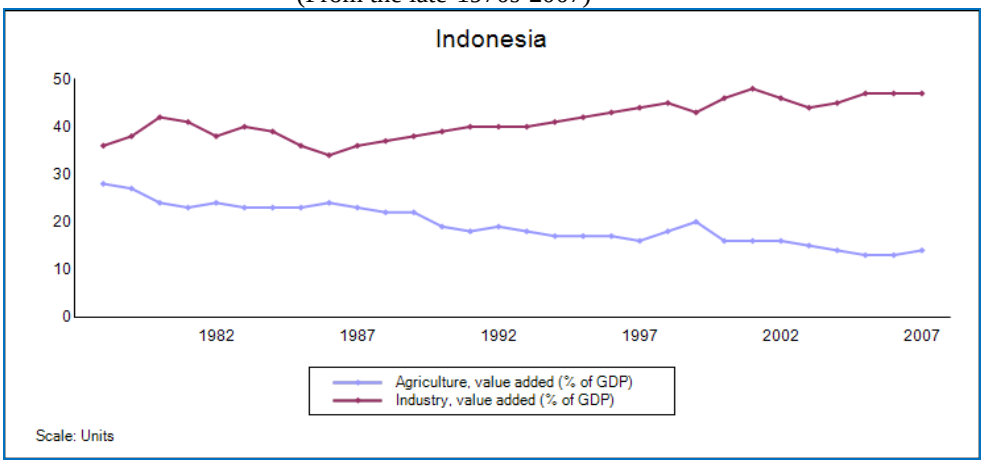
(Fig. 9) Nigeria: Real GDP Growth from the late 1970s - 2006



Source: World Development Indicators Database, World Bank.

Good economic policies and institutional features combined with Indonesia's abundance of labor and non-oil resources as well as with technical changes in the food crop sector, which oil revenues helped to accelerate by financing the diffusion of improved techniques; together, they resulted in a distinctive pattern of growth and its economic performance stands out as being successful and today, Indonesia is considered as a successful emerging economy. The graph below (Fig.10) also shows that agricultural sector still accounts in average about 20 percent of the overall value added of Indonesia's economy and it has been the case since the late 1970s.

(Fig. 10) Agriculture and Industry Value Added in % of GDP
(From the late-1970s-2007)



Source: World Development Indicators Database, World Bank.

In all accounts the Dutch Disease seems to be avoidable furthermore, a convincing case remains to be made in the case of SSA if the Dutch Disease is the main factor explaining the poor development performance of SSA's oil exporting countries.

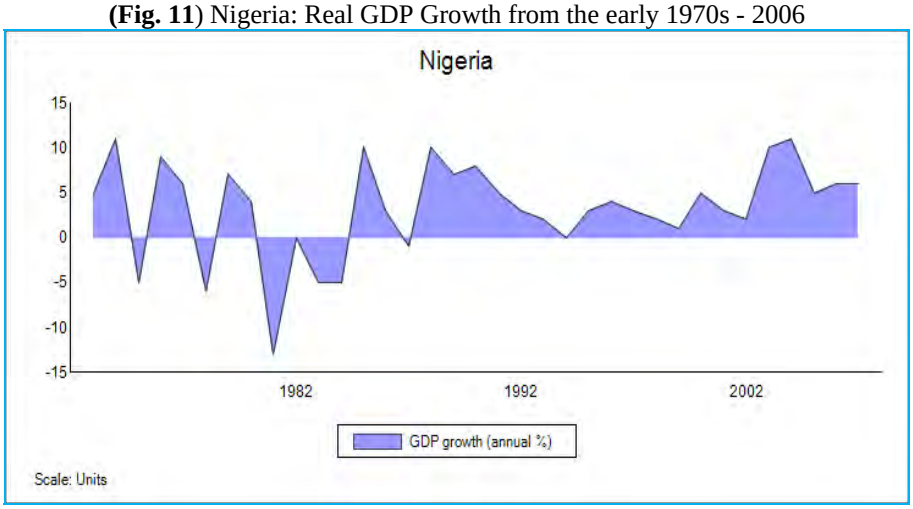
Nigeria's case so far has been the most studied by scholars and development practitioners. The unanimous conclusion is so far that despite enormous revenues accruing to the government since the mid-1960s estimated in a cumulative basis about more than US$400 billion in 2007, the country development performance has been disappointing; and by the per capita GDP standard, Nigeria remains amongst the 15 poorest nations in the world for which such data are available. There is no doubt that one way or another, oil has had a detrimental impact on Nigerian development: But it is the Dutch Disease? Or it is all about political economy and the country context-curse?

Sala-i-Martin and Subramanian (2003) provide evidence that suggests that Dutch Disease is an inadequate explanation for Nigeria's growth performance. The waste explanation, on the other hand, appears to be overwhelming, with oil a key factor causing a whole series of pathologies that have led to the waste. It is not clear that relative price movements did in fact consistently disfavor the tradable sector even in the immediate aftermath of oil windfalls; relative price movements were not correlated with oil prices so that how oil windfalls were used rather than oil prices per se were more important in determining relative prices; in fact decision to keep official exchange rate appreciated,

were to a greater extent related to the need to create rents, via the black market premium, at a time when oil revenues were in decline[18]. Although the role of the agricultural sector declined, it was offset by an increase in the size of the government sector in economic activity, and the poor performance of the latter may well be the most important for Nigeria's long-term economic decline.

The growth decomposition of Nigeria's performance since 1965, provided in Sala-i-Martin and Subramanian (2003), presents two notable characteristics which are: the rapid accumulation of physical capital, averaging 6.7 percent per year; and negative TFP growth, averaging 1.2 per year. Oil was responsible for the physical capital accumulation, suggested by the timing of the surge in investment. Between 1973 and 1980, the years of the two majors oil prices shocks, the capital stock grew at an average rate of 14 percent per year, which represented a three-fold increase in the country's capital stock in 8 years. A substantial part of the increase was public capital spending financed by the surging oil revenues. Public investment as a share of GDP rose by over 7 percentage points during the period of the oil shocks. Between the 1960s and the end of the second oil shock the share of public sector in capital formation increased from 20 percent to 55 percent; and the real GDP growth (Fig.11) rate has been erratic compared to Indonesia for the same period.

(Fig. 11) Nigeria: Real GDP Growth from the early 1970s - 2006

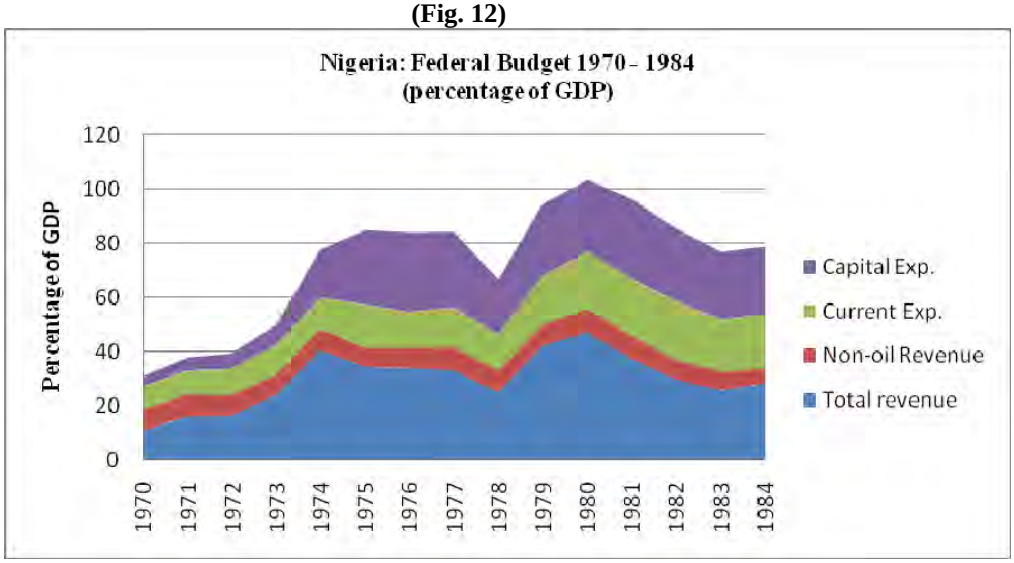


Source: World Development Indicator database, World Bank.

[18] For the complete account, also see Gelb et. al 1988.

The government was under pressure and in a hurry to use its oil revenues and wanted to avoid being accused of not spending when Nigeria was so poor. Increasing wages was one way the government spent revenues rapidly, although this choice only implies increasing consumption and not expanding the economy for more jobs. Investing heavily in education, transportation, and construction was the other way through which the government decided to spend money. Officials involved in formulating development plans for the public sector have related how orders came down to multiply spending on education and transportation (Bienen 1988). Within one year, new programs were under way, and expenditures increased six times (Fig.12) compared to their level over three years before (Schatz 1981). Not surprising, funds were committed hastily to new domestic investment without proper coordination[19] and led to waste and corruption; the focus was put on the quantity and not on the quality of spending.

(Fig. 12)



Sources: World Bank database and Bienen (1988).

Beyond the erratic growth rate in contrast with Indonesia for the same period, the overall picture emerging from Nigeria is that the country has over-invested in physical capital and has suffered from poor productivity. Quality has suffered at the expense of quantity (Bevan et al 1998). Another illustration or evidence about the quality of investment comes from capacity utilization in manufacturing, a substantial portion of which is government-owned. Capacity utilization, which averaged about 77 percent in

[19] They were severe problems in administrating and coordinating programs and disbursements.

1975, started declining very quickly, to about 50 percent in 1983. Since the mid-1980s, capacity utilization has never exceeded 40 percent, and has languished at around 35 percent. In other words, two-thirds of the investment in manufacturing by the government is consistently wasted.

As Bevan et al (1998) noted, the oil windfalls enabled the government to substantially increase its expenditure and thus provided increased opportunity for kickbacks. In fundamental ways, the politics of Nigeria has been shaped by getting access to the revenues from oil. Successive military dictatorships have plundered oil wealth and created a huge civil service. Oil revenues financed the building of the famous Ajakouta steel complex in the 1970s, which is yet to produce a commercial ton of steel. To appease regional rivalries; steel-production capacity was divided among several locations of the country. However the decision behind the steel industry was noble as it was a specific manifestation of the drive for modernization and industrial self-reliance.

The Nigerian explanation shows that the complexity of country context matters in Africa therefore should imperatively be taken into account, instead of quickly jumping to conclusion using the Dutch Disease cliché as the main explanation of the poor development performance of SSA's oil exporting countries; if we are to efficiently address the resource paradox issue and help Sub-Saharan African oil exporting countries, manage and transform their natural resource wealth into long-term economic growth that spreads the benefits into the country.

The political economy and the political dynamics seem to be more important than the Dutch Disease causality explanations and probably in the context of Sub-Saharan Africa that is what matters the most, given their influence on the decisions underlying the utilization of windfalls. Transparency and accountability in the management of oil revenues are therefore critical as well as good economic policies, if these countries are to transform oil and minerals revenue into sustained growth-path and poverty reduction.

IV – Effectively Managing Boom and Bust Cycles

Besides the Dutch Disease, an alternative explanation of the curse puts the emphasis on volatility. Natural resources rents tend to be very volatile and volatility has been shown to be bad for growth, investment, income distribution, and poverty reduction[20]. Managing this volatility is challenging, much of the gain made in a boom unravels in the bust that follows; if not well managed boom and bust cycles can disrupt government development programs and poverty reduction spending.

Boom and bust cycles plague oil exporting[21] countries, given the importance of oil in the overall economy and in government revenues. The economic impact includes unpredictable revenue streams because widely fluctuating export revenues lead to fluctuating levels in overall government revenues (Mikesell 1997). These frequent upward or downward adjustments of fiscal expenditures are costly because they simultaneously discourage private investment and destabilize the government's budget, therefore impeding its ability to sustain investment and social provision and service deliveries (Katz et al. 2004). In addition, once expenditures become entrenched, it is harder for governments to make budget cuts; rather than reversing their spending patterns during busts, they often opt to borrow, and hence, risk incurring huge debt burdens.

Nigeria is a case in point, since the collapse of oil prices in the early 1980s. Nigeria[22] experienced rapid external debt buildup and exhausted foreign reserves. Public and publicly guaranteed external debt increased from $4.3 billion to $11.2 billion, while foreign exchange reserves were almost exhausted, from $10 billion to $1.23 billion, all between 1981 and 1983. In early 1980s Nigeria was borrowing heavily from commercial banks, mostly at floating interest rates. During 1984-1993, the public debt to GDP ratio increased substantially and reached a staggering 140 percent of GDP. The consistent

[20] Also see Gavin and Hausmann (1996), Ramey and Ramey (1995), Aizenman and Marion (1999); and Caballero (2000).
[21] Although market volatility is a problem for all exporters of primary commodities, the phenomena is acute for oil exporting countries given the importance of oil in the overall economy.
[22] Nigeria's Growth Record: Dutch Disease or Debt Overhang? World Bank Policy Research Working Paper 4256, June 2007.

record of repeated rescheduling[23] and continuing arrears since early 1980s have effectively shut Nigeria out from international market for most of the past two decades.

Fiscal policy has been the major factor behind the debt expansion during the period of oil price collapse and the subsequent collapse of the real GDP growth rate in 1981 – 1983 (Fig. 11). While the non-oil deficit was reduced substantially as a result of the sizeable public expenditure cuts (Fig. 12), the drop in oil revenue as a result of the oil price collapse was much larger. Consequently, the average annual non-oil deficit for the period exceeded the average oil revenues by more than 50 percent of non-oil GDP. The resulting large fiscal deficits translated in large current account deficits, which amounted to $18 billion cumulatively over 1981-1983, in turn led to rapid buildup of unsustainable external debt Budina, Pang and Van Wijnbergen (2007),

A country with large revenues derived from exploiting a nonrenewable resource such as oil, typically faces two main problems: (i) the revenue stream is uncertain and volatile because it depends on the world oil prices, and (ii) that revenue will eventually dry up. Nonrenewable Resource Funds (NRFs) are proposed to deal with both problems. First, a fund may be seen as able to stabilize budgetary revenues. When oil price is high, the fund would receive excess resources, which would then allocate to the budget when the price is low and therefore revenues. Second, a fund may be seen as a way to save some of the revenue generated by exploiting the finite stock of the resource, which can then provide income after it has been depleted. Funds may also be set up for other reasons such as to counteract the spending effect leading to the real exchange rate volatility and Dutch Disease, for liquidity and political economy purposes, and to enhance governance and transparency (Jeffrey Davis et al. 2001).

Norway, for example, has charted a long-run-oriented, tax-based and reasonably market friendly approach to the management of its oil resources. The oil revenue is

[23] In 1982 and 1983, Nigeria accumulated commercial debt arrears for the first time and has been running arrears on its external debt ever since. Nigeria's arrears on external debt have been rescheduled in successive agreements with the London Club (1984, 1987, 1989 and 1992) and the Paris Club (1986, 1989, 1991, and 2000). The last Paris Club debt reduction agreement was reached in October 2005.

deposited in the Norwegian Petroleum Fund[24], which is being built up and invested mostly in foreign securities for the benefit of the current generation of Norwegians when the reach old age as well as for the future generations, and also in order to shield the domestic economy from overheating and possible waste. At the same time, however, a variable proportion of each year's net oil-tax revenue is transferred from the government's Petroleum Fund to the fiscal budget, essentially to cover the non-oil budget deficit[25]. Norway example constitutes the state of the art in term of fiscal management rules; transparency and predictability in the management of oil windfalls utilization.

At end-2006, the fund's assets were worth 114 percent of GDP and currently it manages around US$350 billion. Other countries are using Norway's standards as models for their own Funds. Fiscal policy in Norway is anchored by a guideline that the government's structural non-oil deficit is supposed not to exceed 4 percent of the total financial assets of the pension fund. The rationale for this guideline is that the long-run real return on these assets is assumed to be 4 percent, which is about the equivalent of the real return of the fund – the annual net real return has been 4½ percent since 1997-Clausen (2008). The non-oil deficit benchmark helps make the dependence on revenues from natural resources more transparent, hence contributes to a more long-term-oriented fiscal policy. Only the permanent part of Norway's oil revenue is being consumed with this fiscal rule. This ensures a permanent and predictable availability of revenues provided that Norway keeps its non-oil deficit under the 4½ percent of the total financial assets of the fund.

Government spending however contains both an investment and a consumption component; it could ultimately benefit the current generation as well as the future[26] generation. Taking into account the investment impact on productivity and the incentives it creates for private capital accumulation, countries with low capital stocks such as it is the case of SSA's oil exporting countries, benefit most if the government spends the

[24] The Fund recently became Government Pension Fund.
[25] Thorvadur Gylfason. The Paradox of Plenty – For the Statoil-Econ conference volume – Lessons from the Dutch Disease: Causes, Treatment, and Cures. March 2001.
[26] Some countries have considered, or turned to the use of savings funds, which seek to create a store of wealth for future generation. This would allow the latter to benefit from part of the revenue arising from the depletion of exhaustible natural resources in the current period.

bulk[27] of accruing oil revenues with the aim at increasing the return to private investment and raising the country growth rate, Takizawa, Gardner and Ueda (2004). This result does not simply follow from the fact that marginal return on investment spending in these countries would be higher than the return on external financial assets. When the initial capital stock is low and government spending has positive externalities on production, the country would be better off spending more of its oil revenue upfront by increasing both return to private investment and the country's rate of growth. Hence, if oil revenue investment lead to long-term benefits (e.g.; health, education and infrastructure), then spending can permanently raise income, thus minimizing the tradeoff between current and future generations.

Managing revenue volatility is a tricky task; nevertheless, strengthening the fiscal[28] management, adopting clear rules of the game upfront, and improving transparency and accountability can help smooth the problem during the bust cycle. Managing the bust cycle might be less an issue if revenues are well-managed during the boom period; therefore improving public finance management (PFM) should be a priority. Investing in the economy to the extent of the absorptive capacity could be a wise decision, to spread the natural resource wealth into the country and in other to increase the standard of living. Building up assets should also be a serious alternative depending of the magnitude of oil revenues and country absorptive capacities.

V – Addressing Institutional Issues: Avoiding the Rent-Seeking-Disease in Sub-Saharan Africa's Oil Exporting Countries

Existing empirical evidence seems to demonstrate without exception that countries that have managed to circumvent the resource curse demonstrate superior organizational settings with sound institutions or good leadership able to insulate windfalls from political interferences: Norway for example is one of the perfect illustrations for that matter. With natural resource wealth such as oil, there is so wealth

[27] Provided that there is not absorptive capacity issue or it is taken into account in SSA's oil exporting countries.

[28] Also see Achille Toto Same; Windfall Management for poverty Reduction: Improving Public Finance Management. The Case of Chad. World Bank's Policy Research Working Paper 4596. April 2008.

floating around the government that it is easier to engage in unproductive rent-seeking activities to appropriate that wealth rather than in creating more wealth. Weak institutions may lead to wasteful spending or distorted allocation. It is widely recognized that the quality of political and economic institutions such as the type of property rights arrangements and the quality of state bureaucracy determines to a great deal whether natural resource rents will be managed to the benefit of the economy and society, this is clearly negatively evidenced by the disappointing case of Nigeria, in many regards.

Acemoglu, Johnson, and Robinson (2003), demonstrate that, although the geography hypothesis emphasizes forces of nature as a primary factor in the poverty or prosperity of nations, the institutions hypothesis is about manmade influences. According to this view, some societies are organized in a way that upholds the rule of law; encourages investment in machinery, human capital, and better technologies; facilitates broad-based participation in economic and political life by the citizens; and supports market transactions.

Three crucial elements of these organizational settings of good institutions are as follows: (i) Enforcement of property rights for a broad cross-section of society, so that a variety of individuals have incentives to invest and take part in economic life; (ii) Constraints on the actions of elites, politicians, and other powerful groups so that these people cannot expropriate the incomes and investment of others in the society or create a highly uneven playing field; (iii) Providing some degree of equal opportunity for broad segments of the society, so that they can make investments, especially in human capital, and participate in productive economic activities

Acemoglu, Johnson, and Robinson (2004) and Rodrik, Subramanian, and Trebbi (2002) further demonstrated that economic institutions matter for economic growth because they shape the incentives of the key economic actors in society. In particular, they influence investments in physical and human capital and technology, as well as the organization of production. Although cultural and geographical factors may also matter for economic performance, differences in economic institutions are the major source of

cross-country differences in economic growth and prosperity.[29] Economic institutions determine not only the aggregate economic growth potential of the economy but also an array of economic outcomes, including the distribution of resources in the future. That means they not only influence the size of the aggregate pie, but how this pie is divided among different groups and individuals in society. Therefore, the quality of leadership in SSA's oil exporting countries is critical to positively influence the rule of the game toward a sustained-growth-path, and poverty reduction; because political power—hence, country's leadership—determines economic institutions and policies.

There is now an international consensus on the critical necessity to strengthen governance, transparency, and accountability in oil and mineral rich countries for poverty reduction. Evidence has shown that with good institutions, large revenues generated from extractive industries enjoyed by some SSA countries can foster economic growth and reduce poverty; similarly, efficient management of government revenues and spending—public expenditure management—can have a profound impact on poverty reduction. Ensuring sound and transparent institutions to adequately managing natural resource and more so in Sub-Saharan African's oil and mineral exporting countries is fundamental given their overall disappointing development performance in spite of their resource endowments.

The EITI++ initiative aims at addressing this critical issue. Further to improving transparency and accountability, the EITI++ is rightly focusing on the resource chain including managing revenues, and promoting sustainable and efficient utilization of natural-resource wealth. In fact, fiscal and tax regimes, in other words, governments' takes on oil and mineral exploitation in Africa are by no means uniform. A multitude of revenue extraction instruments or systems are currently in place in different countries in Africa from the government side to capture some of the benefits for the state and the public. It is therefore critical to understand the resource chain in the very beginning and early stages of rent production by assessing the arrangements in place to eventually

[29] For a detailed framework, please see Acemoglu, Johnson, and Robinson (2004).

improve transparency throughout the revenue chain and by the same token improve efficiency and revenue allocation for sustained growth and poverty reduction.

This conceptual framework suggests and promotes the review of all mechanisms and management arrangements related to oil and mineral revenues in every stage of the resource chain. However, to avoid political complications and given the sensitivity of the subject and to make the process more manageable, this framework suggests to stay away from contract negotiations process between government and international private oil companies, as well as from the adjudication of rights to extraction. Instead, it suggests to focus on assessing the overall oil and mineral wealth governance and management arrangements in place from the collection of taxes and royalties to sound and sustainable projects, including possibly project monitoring, hence addressing the resource paradox.

For example what is the structure of governments' rents? Is there any direct or indirect taxation on international oil and mineral companies? Any corporate taxes? What is the level of royalties if there are any? Is there any production sharing arrangement? Is there any state equity fractional ownership? Are there any special mineral taxes regulations?[30] The objective is to help SSA's oil exporting countries to adequately manage their windfalls in a manner that spreads the benefits to the economy for sustained growth and poverty reduction, while avoiding undermining legitimate private corporate interests. This will require capacity building, economic policy advice and technical assistance.

The immediate challenge often facing authorities is to prepare a comprehensive development strategy to reduce poverty and foster broad-based economic growth. A well formulated and prioritized budget is critical in this regard. With substantial oil and mineral wealth, mineral-rich countries should be able to make rapid progress toward a sustained-growth-path and poverty reduction. In general the budget is the financial mirror of government policy. The preparation process is a powerful tool for coherence. The budget is both an instrument of economic management and an implicit policy statement, as it sets relative levels of spending and priorities for different programs and activities. In

[30] The purpose here is to secure the source of revenues and to improve transparency in the revenue chain.

principle, the starting points for expenditure programming are: (i) a realistic assessment of resources likely to be available to the government; and (ii) the establishment of fiscal objectives. The capacity to translate policy priorities into the budget, and then to ensure conformity of actual expenditures with the budget, depends in large part on the soundness revenue forecasts for oil exporting countries.

This backdrop calls for a budget formulation and execution strengthening. What are the budget preparation structures and procedures in place? Are they properly working? On the capital budget side or the investment budget formulation: is there any efficient public investment system to support the PIP? The overall assessment of expenditure framework to improve transparency and accountability is also needed. What are the budget execution and monitoring mechanisms and procedures in place? This aspect is critically important.

As is well known, most of corruption activities and mismanagement are happening around the budget execution stages, where most of the cash is susceptible to floating around; therefore, it is fundamental to ensure that the principles of transparency and accountability are well observed. What are the safeguard and mechanisms currently in place? What are the financial control institutions in place? Are they working properly? Is there any need to improve the flow of funds during the budget execution? Good governance, sound institutions and abundance of revenue are necessary and indispensable however not sufficient by themselves for a sustained growth and durable poverty reduction: There is also a need to implement good economic policies.

VI – Transforming Oil and Mineral Rents into a Sustained Growth-Path and Durable Poverty Reduction in SSA

In the context of globalization, it is widely recognized that the rate at which a country grows is substantially determined by three factors: (a) the country's ability to integrate in the global economy through trade, investment and innovation (technological change); (b) its capacity to maintain sustainable government finances and a sound monetary policy; and (c) the country's ability to put in place an institutional environment in which contracts can be enforced and property rights can be established. In addition, in

the context of developing countries, like is the case of SSA oil exporting countries; because the country wealth is generated from the country economic structure, other things being equal, substantial additional income can be derived only from expanding the very structure of their economy[31] as productivity is improved. In other words, the pure consumption[32] of abundant oil and mineral resources cannot expand the production base needed for a sustained-growth-path, as no added value is created in the country, through the simple and pure consumption of oil windfalls.

It is critically important for SSA's oil exporting countries to start the process of climbing the value-chain ladder and progressively move into more manufacturing activities. This can be done by adopting and adapting existing technologies (abundant oil revenue can help) while adjusting to the global demand and international trade to limit their dependency on oil revenue, hence paving the way for a sustained growth, job creation and durable poverty reduction. The oil sector creates very few jobs; therefore the bulk of employment is inevitably from the non-oil economy. A rentier developing country which does not expand the structure of its economy condemns itself to an unsustainable permanent welfare society, unemployment and poverty circle.

The recent global food crisis for example demonstrates the vulnerability and the dependency of SSA countries on imported foods. Food constitutes by far the largest single item of household consumption in general. Oil proceeds can be invested in raising the productivity of farmers by financing improved seed variety for local production toward food security. This could also fuel job creation in rural areas.

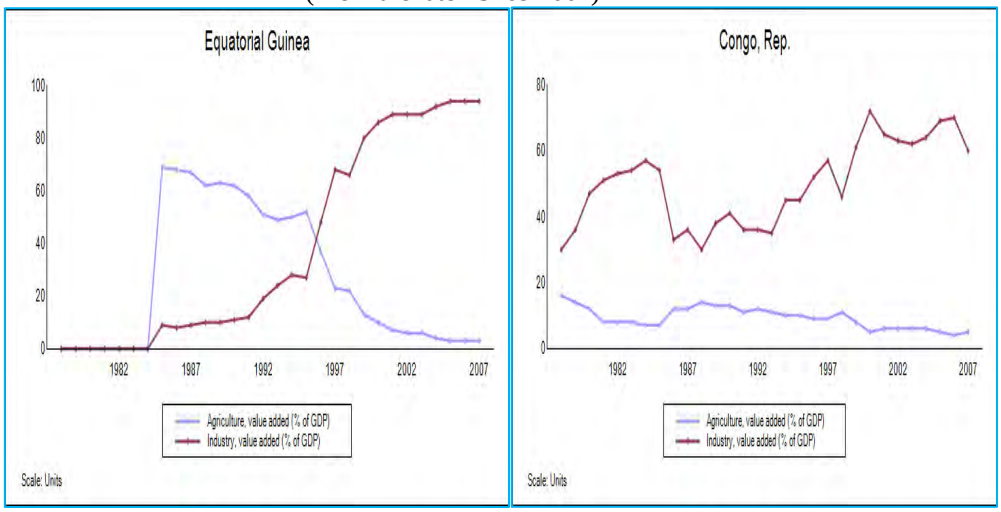
In spite of its existing abundant-oil-wealth, Indonesia consistently invested in the food crop sector to promote technical changes in the food sector, which oil revenues helped to accelerate by financing the diffusion of improved techniques. Indonesia's pattern of growth and its economic performance stands out as being successful in many accounts and is considered today as a successful emerging economy, partly because of

[31] Oil exploitation will create a temporally growth surge as the rent is spent. But this type of growth can only be short-lived if the non-oil economy is not developed; it could just be like manna from heaven and will generate inflation and high costs, which will make the situation even worst.

[32] Particularly in the context of a depletable resource the overall situation may even be worse than the ex-ante situation preceding the establishment of a "rentier" economy, once resources are depleted.

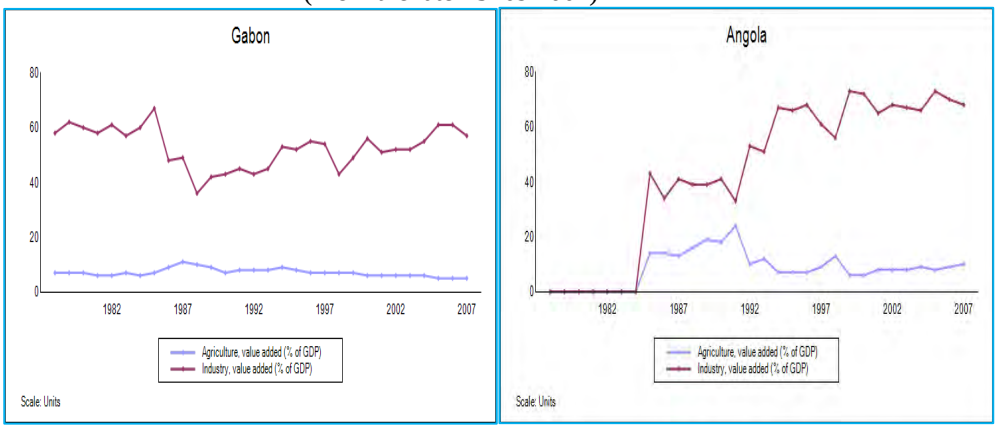
economic policy choices the country made. More than three decades later, the agriculture added value still accounts for about 20 percent of GDP (Fig.10) and the manufacturing sector has substantially improved. By contrast, the agriculture value added in percentage of GDP has considerably shrunk in SSA's oil exporting countries and in some cases tends to become meaningless[33] at best; as the oil sector grows (Fig. 13 and 14). It would have been a good news, if another non-oil sector of the economy was taking over, but it is far to be the case although the non-tradable sector seems to flourishing in Angola and Equatorial Guinea.

(Fig. 13) Agriculture and Industry Value Added in % of GDP
(From the late-1970s-2007)



Source: World Development Indicators Database, World Bank.

(Fig. 14) Agriculture and Industry Value Added in % of GDP
(From the late-1970s-2007)



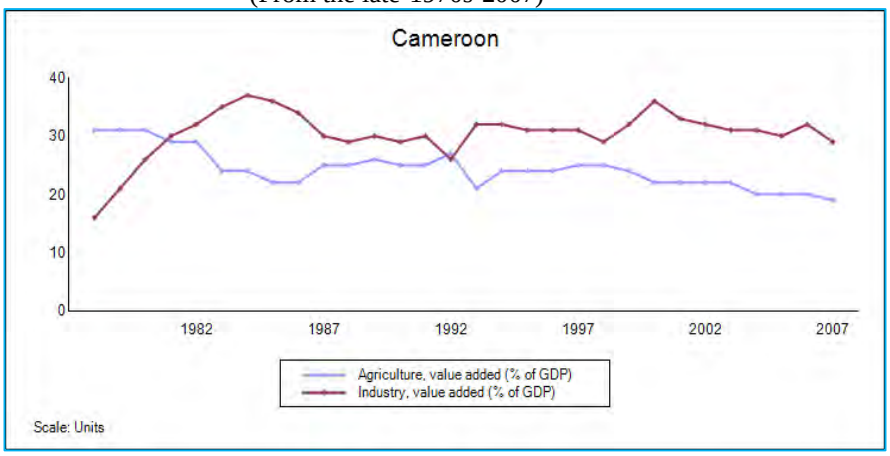
Source: World Development Indicators Database, World Bank.

[33] Except in Cameroon and Chad where the agriculture sector remains substantial.

The huge industrial value added contribution to GDP observed in Equatorial Guinea, Congo Republic, Gabon and Angola (Fig. 13 and 14) only reflects the dependency of these countries on oil. To boost job creation, the non-oil economy and particularly the tradable sector need to be developed to ensure a durable poverty reduction. This has been clearly the case of Indonesia.

Cameroon (Fig 15) and Chad (Fig.17) have managed so far to keep a significant level of agriculture value added in percentage of GDP. For Cameroon, it means that the country is less dependent on the oil economy and confirms the country's status as being among the most diversified economies in SSA; however Cameroon is underperforming in many accounts compared to its potential and resource endowments.

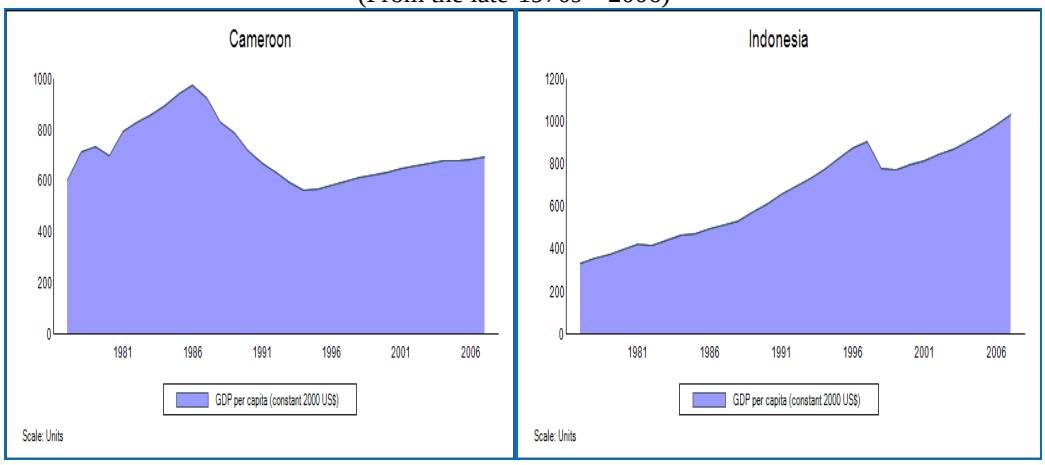
(Fig. 15) Agriculture and Industry Value Added in % of GDP
(From the late-1970s-2007)



Source: World Development Indicators Database, World Bank.

Cameroon could potentially do better in term of job creation and poverty reduction. In the 1970s and 1980s Cameroon and Indonesia were overall at about the same level of development. Cameroon was even doing better than Indonesia in terms of per capita GDP (Fig. 16). Today the structure and importance of Indonesia's economy are no longer comparable, although the per capita GDP is not that much divergent.

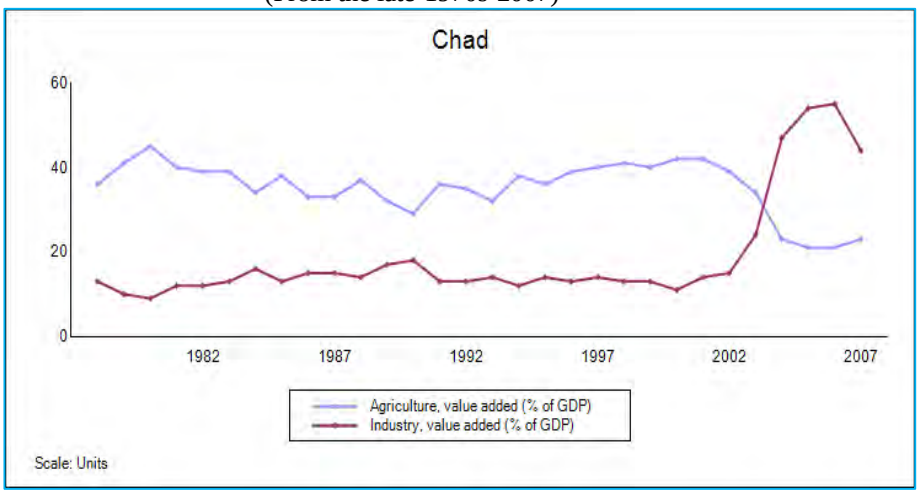
(Fig. 16) Cameroon and Indonesia Comparison: GDP Per Capita
(From the late-1970s – 2006)



Source: World Development Indicators Database, World Bank.

The case of Chad (Fig. 17) underlines its status as a newly oil exporting country. As we know, Chad became an oil exporting country in late 2004; previous to the oil exploitation, the country was strongly agricultural with important cotton and cattle sectors. These sectors, if well reformed and managed, could generate much more revenues per year for rural poor and could create substantial addition jobs for the rural poor. Therefore, development of the rural sector and agriculture and breeding sector reforms should also be among the highest priorities for Chad's development process. Pointing out that non-oil revenues were twice the level of oil revenues in 2004 and surpassed again oil revenues in 2005 is noteworthy (Toto Same 2008b).

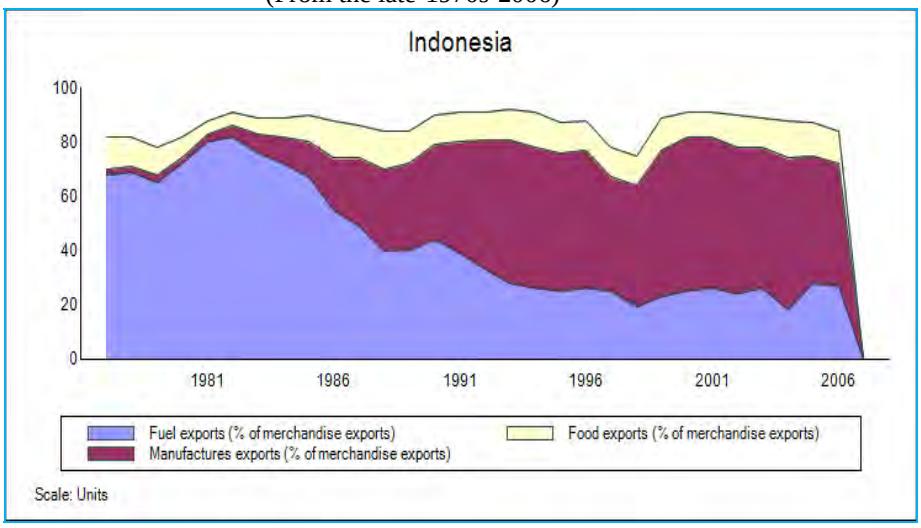
(Fig. 17) Agriculture and Industry Value Added in% of GDP
(From the late-1970s-2007)



Source: World Development Indicators Database, World Bank.

Understanding the fundamentals underlying Indonesia's economic success might be useful for SSA oil exporting countries, particularly because of their similarity. Indonesia's per capita income was only $200 in 1974. Indonesia's economic success between 1965 and the mid-1990s is related to its adoption of the New Economic Order (NEO) policies in 1965. The new government under the leadership of Suharto swiftly implemented macroeconomic reforms and programs to attract foreign investment. These policies, together with investment from the windfalls[34] of the 1970s resulted in rapid economic expansion and a subsequent significant improvement in living standards. Exceptionally noteworthy has been the strength of the non-oil tradable sector (agriculture and manufacturing including non-oil exports). The government was committed to a broad development strategy, that emphasizes raising rural income and was prepared to use key macro instruments to spread the absorption of windfalls over time and limit the impact of the oil booms on the non-oil tradable sectors; and strengthened agriculture sector, infrastructure and industry[35]. Today, the agriculture sector accounts for about 45 percent of total employment (Fig. 19) in average and the manufactures share of exports sector has overtaken the oil share of total exports (Fig.18).

(Fig. 18) Indonesia: Structure of Exports in % of Total Merchandise Exports (From the late-1970s-2006)

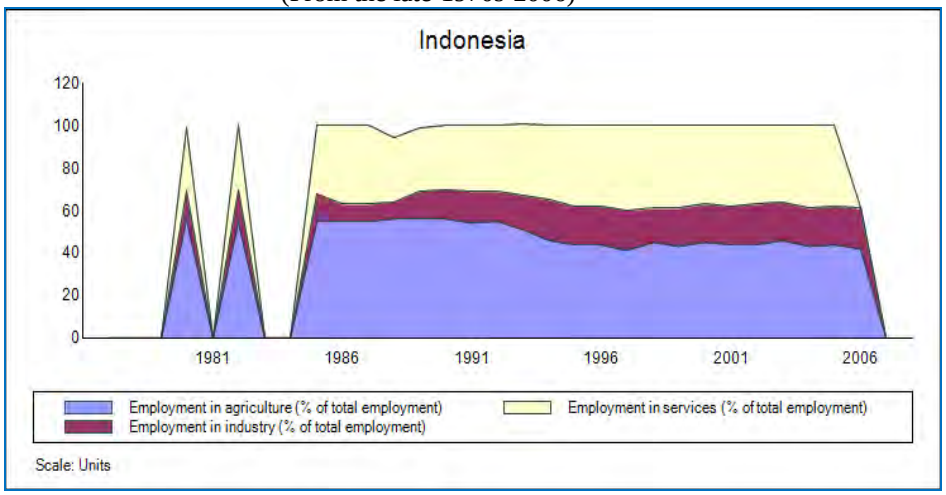


Source: World Development Indicators Database, World Bank.

[34] Revenues from the oil boom in the 1970s were mostly used to expand public investment, in particular in rural development and human capital while mindful of absorptive capacity (IMF, 2006).
[35] For a full account of Indonesia's also see Gelb et al (1988).

What is remarkable and unique in Indonesia's case and could be replicated to some extent in SSA oil exporting countries is that, much of the spending on infrastructure was used to fund labor-intensive public works projects and industry was not neglected in public investments. Twelve percent of domestically financed spending on development was allocated to capital participation. The industrial sector as a whole is estimated to have received almost 20 percent of development spending. Indonesia's investment in the economy could be characterized to have been massive and highly qualitative in stark contrast with Nigeria, where the focus was on the quantity in the expense of the quality, which led to wasteful spending. Indonesia's economic policies choices of the recent decades are reflected on its structure of exports and employment (Fig. 18 and 19). Indonesia has managed to develop the non-oil economy where jobs and value added of the economy are mostly created and has avoided the Dutch Disease.

(Fig. 19) Indonesia: Structure of Employment in % of total Employment
(From the late-1970s-2006)



Source: World Development Indicators Database, World Bank.

It would have been useful to compare the structure of employment between SSA oil exporting countries and Indonesia (but there are no data) and particularly between Nigeria and Indonesia, given that Nigeria is the only country among African oil exporting countries with a relatively large population to some extent like Indonesia. A large

population[36] constitutes a significant advantage in terms of market potential and possible labor to drive the manufacturing development hence, further employment.

Nigeria's experience shows that the solution is not simply to spend but to spend wisely and in a coordinated manner. Hundreds of billions of dollars have accrued from the oil sector in recent decades but unfortunately there is little to show for it in terms of poverty reduction and improved standards of living. Spending of oil receipts resulted in a short-term boom in growth (Fig. 11) but this was followed by low or even negative growth and massive accumulation of debt. Put differently, Nigeria saw a harmful pattern of boom and bust that locked its economy into a *low-growth path*. In the presence of mounting savings from the very recent oil boom, pressures are building up, particularly by state governments, to spend more given the tremendous existing needs for a stronger public infrastructure, particularly power, to support a growing private sector and to reduce poverty. Carefully crafted economy policy is essential to avoid past mistakes. This also holds for the other SSA oil and mineral exporting countries.

SSA oil exporting countries should be better off with a flexible capital expenditure program every five years, together with strict implementation monitoring made possible through an improved PFM/PEM system. This requires excellent budget preparation, execution, and monitoring. The flexible development planning will be done in such a manner that the countries could integrate the volatility of oil revenues. The proposed flexible capital expenditure program can be done, using the lowest oil price-per-barrel forecast as a baseline scenario. In the worst-case scenario, these countries could nevertheless implement the flexible capital expenditure program. And in the case where the prices forecast per barrel are more favorable, additional revenues generated will be carefully invested in priority sectors or transparently set aside.

The very recent oil boom presents these countries with a unique opportunity to invest massively and qualitatively to promote the non-oil sector necessary to catalyze the sustained growth process for a durable poverty reduction and more so for Nigeria because

[36] A small population also means that the country is in a position to make rapid progress toward a full employment and durable poverty reduction, through wise absorption and investment of windfalls in the economy.

of its production sharing agreement contract[37] basis. It is time for SSA oil exporting countries like Gabon, Congo Republic and Cameroon to reorient their development policy and understand that oil revenues are an exceptional opportunity and not a renewable source of development financing. Therefore, they should take full advantage of that favorable situation to strengthen their public finance management in general, and their public expenditure management in particular and promote the non-oil economy for Jobs creation and sustained-growth. They may also wish to plan their development process effectively and improve the efficiency of their public investment system.

[37] The production sharing agreement contract is more sensitive to oil volatility and could possibly provide the government with significant revenues during the boom period.

VII – Conclusion

The purpose of this conceptual framework has been to put together a comprehensive approach that could contribute to address the resource paradox issue in oil and mineral exporting countries in Africa, while suggesting the strengthening of windfall management mechanisms and institutions, and the implementation of good economic policies toward a sustained growth-path and hence, job creation and durable poverty reduction in Sub-Saharan African oil and mineral exporting countries; drawing from the international experience, country specificities, SSA's context and the very nature of natural-resource abundance.

This conceptual-framework supports the World Bank's EITI++ initiative, which aims at helping developing countries, particularly African countries, manage and transform their natural resource wealth into long-term economic growth that spreads the wealth among the people. The World Bank's initiative is a much needed instrument and support for mineral rich countries in Africa, as it plans to provide governments with a range of options including technical assistance and capacity building for improving the management of natural-resource-related wealth for the benefit of the overall economy and notably the implementation of good policies to promote sustained growth and poverty reduction.

This conceptual framework demonstrates on one hand, through the case of Indonesia and the example of Norway that the resource paradox is avoidable and the abundance should not be a curse rather a blessing for SSA oil exporting countries. On the other hand, focusing on Nigeria, the conceptual framework equally emphasizes what not to do, and what went wrong in Nigeria although the desire to promote the country's development was persistent. Nigeria demonstrates to perfection that hasty spending and poor coordination, no matter how many billion of dollars are spent, is not the optimum solution: the quantity is useful but the quality of spending is crucial. Spending for the sake of spending is squandering valuable non renewable resources.

The oil sector directly generates very few jobs, the bulk of employment is consequently from the non-oil economy and the non-oil tradable sector; therefore good economic policies matter to transform rents into sustained-growth, hence job creation and durable poverty reduction. The capacity of policy formulation and execution in a coordinated way is thus fundamental. This has been clearly one of the missing pillars in the case of Nigeria. The country context and political economy matter a great deal but should not be the main driving forces behind windfall management, to avoid excessive rent-seeking activities, inefficiency and wasteful spending; Norway is a case in point. The EITI++ implementation can contribute to make a difference, particularly through capacity building, implementation and coordination assistance.

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