Issues of mineral based economies: nigeria and botswana

Why do Mineral-Based Developing Economies Face Economic Problems?

The Case Study of Nigeria and Botswana

1. Introduction.

Mineral-based economies have been defined as " those developing countries which generate at least 8 percent of their GDP and 40 percent of their export earnings from the mineral sector". (Auty, 1993: p. 3). Two main categories of mineral-based economies have been identified. These include hydrocarbon producers and hard mineral exporters (producers of ores such as copper and tin). (Auty, 1993).

Although one may reasonably expect developing mineral-based economies to witness tremendous economic development owing to their rich mineral resources, this has hardly been the case. According to Davis (1995: p. 1766) " mineral-based economies rather have development problems than development advantages". In addition, Davis (1998) notes that economists and political scientists have recently proposed that mineral economies' growth is below par, despite the mineral windfalls (rents) generated from mineral extraction. The mineral sector has even been classified as a ' loser' sector in the economic development race. (Shafer, 1994) cited by Davis (1998). Citing from a recent World Bank conference on mining and economic development, Davis (1995: p. 1765) states that several invited experts noted with concern the historical poor per capita economic growth of the mineral-exporting nations. In particular, participants from mineral-based developing economies were justly anxious about their fate. (Davis, 1995: p. 1765). In addition to fears of the " Dutch disease" and the " resource curse thesis" (explanations of these terms follow in subsequent sections), delegates were also concern about the appropriate policy response measures to these issues. (Davis, 1995).

This paper aims at explaining why mineral-based developing economies rather face economic problems rather than economic development as one would expect. In meeting with this objective, the paper makes use of two case studies of mineral-based developing economies which include Nigeria (A hydrocarbon exporter) and Botswana (a hard mineral exporter). The rest of the paper is organized as follows: section two presents a literature review on why mineral-based economies rather face economic problems rather than economic development with particular emphasis on the Dutch Disease and the resource curse thesis; section 3 presents a discussion of the case studies making reference to their GDP growth, export revenue from mineral resources and per capita GDP; and section 4 presents some conclusions and recommendations.

2. Literature Review.

Much of the literature has attributed underdevelopment of mineral-based developing economies to the Dutch disease. (Roemer, 1985) cited by Davis (1998) The Dutch disease is defined as a situation where an economy highly dependent on natural resources witnesses a decline in economic development as a result of a depletion of the natural resource or a sudden drop in the price of the resource. (Auty, 1993: p. 3). According to Davis (1995: p. 1768), the Dutch disease is a ‘ morbid’ term that denotes the coexistence of booming and lagging sectors in an economy due to temporary or sustained increase in earnings. Mineral economies have been identified to generate an ideal environment for the disease given their notable minerals booming sector. (Davis, 1995). Mineral-based economies are characterized by a booming minerals sector at the expense of the manufacturing and agricultural sectors. (Davis, 1995). Ross (2003) suggests that mineral exports may cause economic volatility, income inequality, and crowding out of productivity growth in the manufacturing sector, which effects could increase poverty and reduce social welfare. Cordon and Neary (1982) cited in Auty (2001) explain the role of the Dutch disease on the deterioration of mineral-based economies using a three-sector model composed of a resource sector such as oil or other primary product exporting industry, a sector of tradeables, such as the manufacturing and agricultural sectors and non-tradeables. According to the model, a boom in the resource sector has three effects: a spending effect; a relative price effect and a resource movement effect. Looking at the spending effect, Auty (2001) suggests that the increased export revenues increases the demand for both tradables and non-tradables although spending on tradables fails to raise their domestic prices because prices in an open economy are determined in international markets. Consequently, any excess demand is met by imports. (Auty, 2001). Looking at the relative price effect, Auty (2001) suggests that failure to sterilize the increase in foreign exchange will result to an appreciation of the currency, which will in turn reduce the domestic prices of exports as well as those of imports competing with domestic products. In addition, a currency appreciation will lead to a reduction of the rents of the booming sector but may not be sufficient to reduce the sector’s output. (Auty, 2001). Domestic prices of non-tradables will rise with the rise in demand and these prices will neither be affected by the currency appreciation nor competitive imports. This will therefore result to an increase in the prices of non-tradables relative to the prices of tradables, as well as a reduction in exports and an increase in imports. (Auty, 2001). Macroeconomic theory suggests that the national income of a country is positively related to exports and negatively related to imports. The net increase in imports therefore leads to a reduction in the national income of the mineral-based State, which in turn hurts its economic development. Finally, as concerns the resource movement effect, Auty (2001) suggests that the movement of resources between sectors will also affect capital accumulation. Assuming a relatively labour-intensive non-tradable sector and a capital-intensive tradable sector, the movement in favour of the non-tradable sector will tend to raise wages and lower returns to capital thereby reducing capital accumulation. (Auty, 2001). In addition, assuming manufacturing is favourable to growth and that mineral resource booms cause it to decline, the mineral-based economy could experience slower long-term growth than the case would be if it had no mineral resources. (Auty, 2001). To support this view, Auty (2001) cites a number of studies that argue in favour of the fact that mineral resource booms tend to limit the growth of developing mineral based economies. For example, Matsuyama (1993It has also been suggested that mineral windfall facilitate irresponsible fiscal and trade policies. (e. g., Gelb, 1988; Ranis, 1991; Ranis and Mahmood, 1992) cited by Davis (1988).

The issue as to why mineral-based economies remain underdeveloped is somehow controversial. (Auty, 2001). On the one hand, Mainstream economists have argued that primary commodity exports are the only way that countries in the early stages of development can generate the foreign exchange necessary to pay for essential imports and to service foreign debt. (Auty, 2001). On the other hand, Structurist economists (e. g., Presbish, 1950) cited by Auty (2001) argued that a long-run decline in prices for primary exports is an inevitable result of the increasing use of synthetics, shrinking raw material content of finished products and low elasticity of demand for raw materials. In addition Auty (2001) argues that oligopolistic markets in developed countries indicated that productivities increases there were captured in the form of higher income by workers and owners, while in the developing countries productivity gains were passed on to (northern) consumers in the form of lower prices. What the structurists economists are saying in effect is that mineral-rich developing countries because they lack the capacity to transform their raw materials into finished products often supply these products to developed or industrialized countries at very low prices. Industrialised countries in turn transform these raw materials into finished products and sell them to developing countries at very high prices, which do not match the prices for which they supplied their raw materials. By so doing mineral-rich developing countries continue to face declining levels of economic developing at the expense of developed countries. This idea is consistent with dependency theory [1] . For example, Presbish (1950) cited by Auty (2001) projected a downward trend in the terms of trade for primary products in relation to manufactured goods imported by developing countries from developed countries. In addition, Abubakar (1989: p. 19) describes Africa as a continent locked in an unequal exchange with the developed world. Being perhaps the richest continent in the world, Africa has been transformed into undeniably the poorest continent. The following is a quote from Julius Nyerere, a prominent leader in Africa:

“ Every morning I listen to the B. B. C. to learn the price of the cotton and coffee with which Tanzania earns its foreign exchange. The prices of tractors and other goods we need to buy are not announced; they are fixed by the manufacturers in the Developed World, and we learn what they are when we go to buy”.

(Abubakar, 1989: p. 19) quoting Julius Nyerere.

3. Case Studies of Nigeria and Botswana

3. 1 Nigeria

Nigeria falls in the first category of mineral-based economies identified by Auty (1993) as hydrocarbon producers. Minerals constitute 62. 3% of the country’s merchandise exports and 9. 6% of GDP and its mineral dependence index is 36 (the mineral dependence index is defined as the mean percentage contribution of minerals to GDP, merchandise exports, and government revenues). (Davis, 1995) citing Kuburshi (1984); United Nations (1974, 1976, 1987, 1993a, 1993c); World Bank (1993). Nigeria’s mineral dependence index of 36 indicates that it is highly dependent on minerals. This is following from Auty (1993) who considers a mineral dependence index of 20% or more to indicate mineral dependence. Nigeria was ranked 19th among developing countries that depended on minerals in 1970. This was based on the ranking of countries according to mineral dependence index in 1970. Based on 1991 rankings, Nigeria still maintained the 19 th position and its minerals as a percentage of merchandise exports had increased to 86. 0 percent, minerals as a percentage of GDP stood at 7. 6 percent and its mineral dependence index was 46. 8 percent. (Davis, 1995). According to Eifert et al. (2002) oil represents an estimated 37 percent of GDP in Nigeria, and 63 percent of consolidated government revenues. The political economy of Nigeria has had an important role to play on how oil resources are managed in Nigeria. The public sector is the principal controller of these resources, which has fuelled the functioning of an extensive machinery of rent seeking a political patronage. (Eifert et al., 2002). Nigeria is characterised by a fragile ‘ political coalition’ of diverse ethnic and religious groups with diverse interests. Eifert et al. (2002) asserts that public expenditures in Nigeria are always ratcheted out of control during oil booms, leading to macroeconomic instability owing to the diverse number of ethnic and religious interests that characterise the country. For example Eifert et al. (2002) suggest that an estimated amount of $300billion constituting oil revenues has enriched a small group politically and socially influential elite during the last 2 to 3 decades at the expense of the majority of Nigerians who have become impoverished. This indicates that Nigeria has failed to benefit from a general economic welfare from its oil boom because of the selfish desires of a small political influential minority. This situation is consistent with Gelb (1988); Ranis (1991); Ranis and Mahmood (1992) cited by Davis (1998) who attribute poor economic development of mineral-based developing economies to mineral windfalls’ facilitation of irresponsible fiscal and trade policies. Nigeria’s case is also consistent with Karl (1997); Mahon (1992); and Shafer (1994) cited by Davis (1998) who attribute mineral-based economies’ failure to achieve substantial economic development to the entrenched socio-political rigidity and rent-seeking associated with an extended period of mineral extraction. According to Eifert et al. (2002) Nigeria’s economic growth has been stagnant and it is estimated that its per capita income has fallen from approximately $800 in the early 1980s to approximately $300 as at 2002. Nigeria’s failure to grow can be attributed to its government structure. Throughout the military regime described by Eifert et al. (2002) as a period of military dictatorship, the manner in which the oil cycle was managed was solely determined by the federal executive. Government spending was so high that in 1976 it accounted for more than the entire increase in oil revenue. (Eifert et al., 2002). Nigeria therefore faced rising fiscal and current account deficits following a failure of the 1975 oil price rise to bring the budget back into a surplus. By 1981, Nigeria had accumulated huge amounts of external debt, accompanied by capital flight. (Eifert et al., 2002). Increase government spending therefore failed to accelerate growth and there was little evidence of an increase in overall welfare that would have been expected during the sharp real appreciation that followed the spending binge. (Eifert et al., 2002). Eifert et al. (2002) attribute Nigeria’s failure to develop to the fact that its potential gains were rather absorbed in the sharply growing inefficiency of a corrupt and progressively more wasteful and distorted economy.

Nigeria has made some efforts to adopt a democratic State but Eifert et al. (2002) conclude that the outcomes in the management of Nigeria’s oil cycle in the new democracy are thus so far not very different from the past pattern. This indicates that Political institutions in Nigeria are therefore shaped by a longer history than the current political regime. There is still an excessive an unsustainable increase in public expenditure, with considerable macroeconomic instability, and little to show in the growth and economic development. (Eifert, 2002).

3. 2 Botswana.

Botswana was ranked 35th in the mineral dependence index for developing countries in 1970. It had 0 percent for minerals as a percentage of merchandise exports, 19. 6 percent for minerals as a percentage of GDP and 9. 8 for mineral dependence index. (Davis, 1995). Following the ranking based on the minerals dependence index for developing economies in 1991, Botswana was ranked 8 th with an 83. 0 percent of minerals as a percentage of merchandise exports. Its minerals as a percentage of GDP had also increased to 41 percent and its mineral dependence index was 62. 0. (Davis, 1995). Unlike Nigeria, Botswana falls in the second category of mineral-based economies with diamond, copper, nickel and coal constituting the principal hard minerals that it exported. (Curry, 1985). According to Curry (1985), Botswana, unlike other mineral-based economies in Africa that suffer from economic stagnation and political turmoil, Botswana has recorded an economic growth and political stability as a result of its fortuitous endowment of mineral wealth and sound macroeconomic management. Despite this development, Curry (1985) suggests that this growth strategy has produced underdevelopment and economic stagnation in rural agriculture, as well as increasing economic dependency on the republic of South Africa. Increases in mineral revenue has enriched the elite who have joined white farming families as the country’s large scale cattle owners, purchasing land and cattle from savings of relatively high salaries in the mining and public sectors. This situation has created two factions in Botswana. One rich and the other poor and there is an emerging clash between the rich and the poor that could destabilise and threaten an African success story as described by Curry (1985). In effect, mineral revenue in Botswana while it has helped to fuel economic development is threatening the growth of the agricultural sector and has also helped to widen the gap between the rich and the poor. Botswana’s case is consistent with the Dutch disease which is consistent with the idea that a boom in one sector threatens a recession of other important sectors of the economy. The boom in the mineral sector has helped to fuel a recession in the agricultural sector in Botswana.

4. Conclusions and Recommendations

This paper aimed at studying why mineral-based developing economies have witnessed more of economic problems than economic development. Nigeria’s case indicates that the country has suffered from autocratic and fractional democracies that have resulted to a poor management of the revenues from oil booms. As a consequence, mineral revenue has been spent without any fiscal discipline. This has led to the satisfaction of the desires of an influential minority at the expense of the welfare of the greater majority. Nigeria has basically not witnessed any economic development throughout boom in its oil sector. On its part, Botswana has witnessed growth and development as a result of its mineral resources. However, the boom in the mineral sector is hurting the agricultural sector and the situation has only benefited the rich who are using the mineral revenue to take over all land in Botswana for cattle rearing. Like Nigeria, Botswana’s mineral revenue has to some extent benefit an influential minority.

Based on the above, this paper recommends a more democratic regimes in mineral-based economies as well as an emphasis of the importance of all sectors in the economy. Governments in developing countries need to understand the importance of the manufacturing industry. Nigeria for example should be more concern about building its own oil refineries so as to boost its manufacturing industries. In Botswana, the government should implement high taxes on the rich elite so as to help redistribute the mineral income to the poor. Subsidies should be provided to the poor farmers. By so doing, there can be an equitable distribution of land, which will in turn boost the agricultural sector.

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Footnotes

[1] Dependency theory built upon the United Nations Economic Commission for Latin America (ECLA) which characterized the world as divided into centre (the developed, inudstrialised North) and periphery (the underdeveloped agricultural South). (Tétreaul and Abel, 1986; Lievesley, 2003). Dependency theory tries to explain the external mechanisms of control exerted by the centre on the periphery. The centre maintained the periphery in a state of underdevelopment for purposes of super exploitation. (Tétreaul and Abel,

1986; Lievesley, 2003). Dependency theory therefore indicates that underdevelopment was not an original or inherent condition, it could rather be explained by the historical relationship between the developed and developing world.