

Laniran, Temitope J.

Working Paper

Fiscal regimes in resource dependent African states: a political economy game

AGDI Working Paper, No. WP/17/037

Provided in Cooperation with:

African Governance and Development Institute (AGDI), Yaoundé, Cameroon

Suggested Citation: Laniran, Temitope J. (2017) : Fiscal regimes in resource dependent African states: a political economy game, AGDI Working Paper, No. WP/17/037, African Governance and Development Institute (AGDI), Yaoundé

This Version is available at:

<https://hdl.handle.net/10419/173643>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

A G D I Working Paper

WP/17/037

Fiscal regimes in resource dependent African states: a political economy game

Temitope J. Laniran

John and Elnora Ferguson Centre for African Studies,
University of Bradford

&

Centre for Petroleum, Energy Economics and Law,
University of Ibadan

E-mail: lanirantemitope@gmail.com

Research Department

Fiscal regimes in resource dependent African states: a political economy game**Temitope J. Laniran**

September 2017

Abstract

Policy reform debates in African economies often focus on poverty alleviation programs, liberalisation of trade and market and social service provisions. These reforms are heavily dependent on funding from either foreign sources or natural resource wealth, accompanied with concessions from the East and conditionality laden Western sources. They rarely optimally explore the internal fiscal revenue sources of their economy and as such undermines the fiscal prowess of their economies. Despite the less desirable situation, most resource-dependent African economies have found themselves, the elite political class in these countries still engage in wasteful expenditure pattern. The question of demand for accountability and good governance is rather ambiguous to the majority of the electorate as there is often a weak fiscal contract between them and the elite political class. The acknowledgement of this gives politicians an "incentive" to perpetuate corrupt activities which enrich the elite class at the expense and well-being of the masses and widens the inequality gap. This scenario is rather worse off in natural resource-endowed developing economies. The elite class is faced with a game-like situation, where the payoffs can either be beneficial to the elite class at the expense of the electorate or beneficial to the electorate at the expense of the elite class. This study expands the discussion on how an effective fiscal regime can help improve accountability and welfare of citizens in natural resource-endowed African states.

JEL Classification: D72; O10; Q30*Keywords:* Accountability, Natural Resources, Fiscal Regimes

BACKGROUND

The world across, governments are burdened with the indebtedness of social service provision to her citizens. Policy reform debates in developing economies often focus on poverty alleviation programs, liberalisation of trade and market and social service provisions, with heavy dependence of funding these on either foreign sources or natural resource wealth. They rarely optimally explore the taxation potentials of their economy and as such undermine the fiscal prowess of their economy (Cobham, 2005).

The foregoing exerts pressures on the public finance of these economies. With huge uncaptured informal economies, the fiscal revenue base is slim with resultant revenue centrally less than half the gross domestic product (GDP)/tax ratios that obtain in advanced economies. According to Schneider and Enste (2002) estimates, the informal sector in the OECD countries accounts for about 15 percent of GDP, hence small enough not to drive the choice of tax structure. They note that developing economies are however characterised with monumental inequality gap, and informal economy accounts for about 37 percent of GDP, ranging from 13 percent in Hong Kong and Singapore to 76 percent in Nigeria. With informal sectors of this magnitudes, any effective fiscal regime or government policy must give due consideration to the informal sector, albeit Piggott and Whalley (2001) assert that not so much knowledge exists on the relationship between policies and the informal sector and how to absorb the informal sector into the scope of government policies.

This huge uncaptured informal sector then leads to fiscal distortion in such economies and sheds some light on why monetary policies may not be as effective as seen in advanced economies. The nexus between the fiscal side of an economy and the citizens is taxation. It is more or less the contract between the government and the citizens. Government expenditure should improve the living standards of the citizens. Developing a functional fiscal regime and attaining a sustainable rise in revenue levels, however, may not guarantee effective and efficient usage of the additional revenue for development activities that will improve the well-being of the citizens. Akin to the inhibitions on the revenue flanks, there are numerous hindrances on the expenditure flanks obstructing the judicious use of revenues in improving the well-being of citizens. Arguably these are largely flaws of the government in these economies, but the citizens as well are not left out. Issues of bribery, corruption and lack of accountability remain a bane to governance in quite a lot of developing economies, particularly in Africa. However, it suffices to state that this is so, owing to the lack of demand for accountability on the side of the citizens, which is due to citizens non-inclusiveness

feeling about governance. Bergman (2000) and Scholz (1998) explained that taxpayers would conform to a government that provides satisfactory social services, implying that taxation serves as a fiscal and social contract between citizens and government. Tilly (1992) and Brautigam (1991) however suggested that government's ability to generate tax depends on citizen's ability to influence expenditure inferring that a level of "participation" is crucial in this "contract". Moore et al. (2007) posit that the people will demand accountability if they feel involved. According to Asongu (2015), Asongu and Nwachukwu (2017), for the most part, taxpayers are willing to comply with their financial obligations only in exchange for more politico-economic accountability from the government.

The poorest of our societies are often marginalised and without voice (Collier, 2008). They essentially lack basic conducive living conditions such as food, health access, education and shelter. The question of demand for accountability and voice becomes rather ambiguous as the citizens barely struggle to survive; hence, "good governance" becomes the least of their concerns. Since the people are not concerned with demanding accountability, the leaders then have incentives not to engage in expenditures to deliver sustainable development and improve the well-being of the citizens. The acknowledgement of this gives politicians an "incentive" to perpetuate corrupt activities which enrich the elite class at the expense and well-being of the masses and widens the inequality gap. This scenario is rather worse off in natural resource-endowed developing economies (McGuirk, 2013). This study, therefore, seeks to expand on the discussion on how an effective fiscal regime can help in improving accountability and welfare of citizens in natural resource-rich African states.

THEORETICAL FRAMING

This analysis is located within three bodies of theoretical discussions. First is the notion of the "Dutch disease". The discovery of natural resource such as oil accompanied with its resultant sudden gush of "free money" which is similar to that of the foreign aid ineffectiveness scenarios creates incentives for inefficiency and reduces incentives for accountability (Van der Ploeg, 2011). It accords a deleterious shunting of learning by doing process, which is embedded in incremental development process thereby engendering waste, inefficiency and ineffectiveness. This is so, owing to the natural resource "money gush" that comes in magnitudes that the machinery of governance and the economy are not ready to cope with as seen in the "Dutch disease". This was aptly summed up by a former Nigerian military Head of State who once said: "our problem is not money but rather how to spend it" (Ukah and Udochu, 2012, p.145). Returns on natural resource have proven to be a major source of

revenue for natural resource-endowed countries over the years. However, scholars have demonstrated that states endowed with resources tend to develop slower than natural resource-deficient countries. The literature on natural resource abundance has identified two channels through which resource dependence inhibits economic development and performance. Using the Dutch disease phenomenon, Sachs and Warner (2001) explained that when an economy experiences a resource boom, production in the non-traded sector expands at the detriment of the manufacturing sector. This shrinkage in the manufacturing sector would lead to a socially inefficient growth.

The second channel emanates from the “money quantum” available to governments as a result of natural resource windfalls thereby making governance attractive and lucrative. It is linked to the political economy of resource rents where the abundance of natural resource revenue increases the appetite of the elite political class to remain in power. It leads to a misallocation of resources in power preserving activities rather than increasing expenditures that could increase economic capacity and development (Robinson et al., 2006; Caselli and Cunningham, 2009). Nonetheless, a few resource abundant economies such as Botswana remain "success" stories while other countries perform unsatisfactorily. Could it be that a resource bonanza prompts and influences leaders towards inefficient rent-seeking and patronage activities at the expense of citizens' well-being thereby aiding lack of accountability? Or do the resource booms weaken the quality of institutions and government towards neglecting other channels through which revenues can be generated? Havro and Santiso (2011) hinted that "institutions" in resource dependents economies are weak, and potentially causes a deterioration of fiscal authorities as a result of inactiveness during boom periods. It is germane to state that corruption heightens wherever systems for ensuring effective accountability are weak (Ibietan, 2013). Klitgaard's (1988) elegant formula provides a clear insight into the link between corruption and accountability. The formula states corruption as a function of monopoly, discretion and lack of accountability. This is mathematically expressed as $\text{corruption} = \text{monopoly} + \text{discretion} - \text{accountability}$. It can be inferred that the visibility of corruption in an economy, signals the presence of the aforementioned.

This channel through which natural resource boom inhibits growth and development is consistent with theories put forward by Caselli and Cunningham (2009), Robinson et al. (2006) and McGuirk (2013). They elucidate that rents generated from natural resources alter

a political leader's behaviour through an increased benefit of retaining power, leading to a misallocation of resources and wasteful expenditures on power-preserving activities at the expense of improved well-being of citizens. Since governments in natural resource abundant economies do not depend on revenues raised from taxation, the citizens do not hold them accountable as their counterparts in resource-poor economies (Moore, 2007; Bird, 2008). Karl (2007) describes this mechanism as the participation deficit, stating this deficit as one of the most significant challenges natural resource-abundant states face.

In a similar manner like the second channel drawing from the first channel, the third channel draws from the second channel. It elucidates on the fiscal atmosphere operating in the resource-rich economies. The invisibility of fiscal activities both regarding revenue and expenditure in these developing economies has led civil society organisations to demand not just "publish what you pay" but as well as "publish how you spend it" (Odife, 2004). Perhaps, developing economies particularly those with natural resources lack avant-garde enforcement methods and techniques in fighting corruption. The literature on resource curse attributes the failure of natural resource-rich developing countries to lack of accountability which in turn breeds corruption, mismanagement of natural resource wealth and failure to diversify the economy (Leite and Weidmann, 1999; Auty, 2001; Sachs and Warner, 2001; Moore et al. 2007).

THE POLITICAL ECONOMY OF NATURAL RESOURCE

Political explanations on the reasons why resource dependence translates to an impediment to development have been viewed through three basic approaches: Cognitive, Societal and Statist approaches. The cognitive approach explains that resource windfalls or "easy wealth" that accrues to resource-endowed countries induces leaders and policymakers to be narrow-minded. That is, resource wealth creates an optimistic belief to leaders, that the revenues generated from resources are endless. This belief plagues leaders into the insufficient diversification of the economy and a heavy dependence on the resource-endowed sector coupled with negligible economic planning from policymakers.

The societal approach suggests that windfall gains prompt social groups towards supporting growth inhibiting trade policies. The most common example used in explaining this approach describes it with respect to resource abundant Latin American states and less endowed East Asian countries. Scholars often explained that resource-rich Latin America favoured an import substitution strategy over export promoting strategies despite its failure. However,

resource-poor East Asian countries implemented an export promoting strategy which led to an improvement of their economies. It can be argued that the failure of the Latin American economies was as a result of the windfall gains it enjoyed from natural resources and that these gains influenced their trade policy choice.

The statist approach which is what this study is inclined to, suggests that resource windfalls can deteriorate state institutions necessary to promote long-term economic growth and development. It opines that resource booms increase the incentives of political leaders to retain power and also engage in the misallocation of economic resources where checks and balances are weak. This reasoning is central to Robinson et al., (2006)'s explanation of how natural resource booms can result into a curse for the resource-endowed country.

THE POLITICAL ECONOMY OF NATURAL RESOURCE AND ACCOUNTABILITY

According to Acemoglu and Robinson (2001, 2006) and Boix (2003), authoritarian natural resource-rich leaders resist representative development because giving up power will result in a loss of revenue to them. This suggests that the source and composition of a state's income or revenue are crucial to determining if good governance occurs in a country and how leaders behave. It is well known that revenues generated from unrefined natural resources as is common practice across African resource-rich states are exogenously determined and are largely unaccounted for. In contrast to this, revenues generated to the states through taxation are expected to yield a higher demand for accountability as they come from a compulsory levy on goods and services and citizen's income. This implies that resource rents will increase the appetite of leaders to remain in power since it brings about lower accountability to nationals.

Following from this, elite political class in resource-endowed countries compete to keep power and resource revenues because it provides them with a higher value of monopolising the economy. Therefore, to secure the natural resource wealth, the elite class engages in self-enriching and economy depressing activities. Mehlum et al. (2006) explained that the depressing effect of natural resource boom and the probability of a higher survival would occur where institutions are weak and not where they are strong. In essence countries with strong institutions are less likely to be victims of the resource political economy game trend. Vicente's (2010) empirical evidence on Sao Tome and Principe provides support to the political resource curse mechanism. He explained that the natural resource boom in Sao Tome between the Years 1997 to 1999 increased the incentive of elites to remain in power,

through an increased frequency of corrupt practices, from 21 percent to 38 percent. The study argued that anticipated increases in the resource rents of a country induce an elitist competition to grab available resource rents and engage in excessive spending on power preserving activities, (i.e. increased corruption). The idea that resource booms lead to a higher political survival, depressing activities and corruption, is also well supported by Caselli and Michaels (2009) and Sala-i-Martin and Subramanian (2013).

Having explained that the resource curse exists through an increased value of survival and the participation of elites in corrupt practices, it is essential to emphasise that the resource curse is enhanced because non-tax revenues sources (resource rents, aid) affect electorates less, or in no way. This is because natural resource revenues have less financial weight on electorates than taxation revenues (Baskaran, 2014). This then follows that when electorates have to bear the financial burden of the state, they would be less likely, to put up with a repressive and unaccountable government.

It, therefore, becomes crucial to highlight the manner in which natural resource wealth distorts the "Agent- Principal" relationship between the elite political class and the electorate. In an ideal hypothetical situation, the elected elite political class consists of agents of the electorates who are the principals. The presence of natural resource, its "easy wealth" and alterations to fiscal process in these countries which leads to the lack of a fiscal contract between the elected and the electorate, creates an alternative situation. The alternative situation is such that sees the Agent become Principal and vice versa. This alternative scenario is the dominant situation in most African resource-rich economies. To maintain the alternative status quo, therefore, requires power preserving activities that erode the fiscal contract through undermining of the fiscal prowess and potentials of such economies thereby engendering a lack of accountability.

The natural resources market over the years has proven to be closely linked to volatility, leaving these economies vulnerable to exogenous fluctuations and shocks. It would seem logical that in the midst of a shock, a country should be able to substitute its windfall drop through a more articulate fiscal regime. However, due to the presence and dependence of resource rents and the calculated refusal of political elites to strengthen fiscal capacity to avoid being accountable to their citizens, it becomes very difficult for the government to tax more in order to cover up for deficits. The resultant effect is that this widens deficit with much distortions to economic activities in the country. Perhaps, this explains the "cyclic

narrative” of the rise and fall of African economies that closely trails the volatility trend in the commodity markets.

Scholars on the resource rents literature such as Crystal (1989) and Vandewalle (1998) have described most natural resource producing developing countries as “rentier states,” given that a large portion of their revenue is generated from external rents. They support the claim that governments endowed with natural resource, use revenues gained to alleviate social pressures that might foster the demand for accountability by its citizens. This notion suggests that as political elites derive satisfactory revenue from selling natural resources, they would be less likely to improve their fiscal regimes. If they are faced with exogenous shocks, they would opt for loans from outside rather than ensure the articulateness of domestic fiscal regime while waiting for the “good times” in the market to return. Furthermore, Devarajan *et al.*(2010) explain that fiscal contract is absent in natural resource abundant developing economies because they have a limited fiscal base and do not require revenues through taxation, considering their revenue magnitudes from natural resource rents.

Another explanation of the rentier effect and ineffective fiscal regime in these countries can be viewed in light of the “spending effect”: Most governments in resource abundant developing countries are recognised as states that spend extravagantly on non-productive economic activities. Bird (2008) opined that the presence of increasing resource revenue fosters greater spending on patronage, which in turn stifles the answerability of States to their citizens. Entelis (1976) for example, argues that in Saudi Arabia, the government expended it's natural resource revenue on power preserving programs such as bribery of judiciary to win elections, election rigging, and internal security. All these assisted in reducing pressures for accountability and stifling the ability of the people to scrutinise the expenditure of their government.

Bazdresch and Levy (1991) also made a similar argument for the Mexican natural resource boom of the 1970s. They explained that the revenues generated from the boom helped sustained expenditures on patronage activities, which further weakened checks and balances and the demand for accountability in the country. The insertion of virtually any African natural resource dependent economy into the above examples, therefore, explains the political economy atmospheres across the continent. This evidence implies that natural resource wealth gives room to a grabber friendly system, which leads to large spending effect on selfish and non-productive sectors at the detriment of productive activities such as building and fostering a fiscal regime that would further generate revenue for the states.

Another factor that impedes the development of effective fiscal regimes through natural resource rents can be explained through the “group formation” effect. This argument according to Moore et al. (2007) implies that revenues gotten from the natural resource rent, provides political elites with ample money, in preventing the formation of independent social groups that may hamper the frivolous expenditures of political elites and demand for accountability on the expenditures made by the states. This explanation relates to the fact that because political elites do not want to be accountable to the electorate via taxation, they would actively engage in activities that prohibit the development of independent bodies that are threats to their selfish desires. For example, leaders can restrain the provision of public goods, such as free media and effective communication that would aid people to organise and coordinate into social groups. They do this to suppress revolutionary activities from nationals. The state also further patronises the intending social groups by lowering tax burden so that there would be no basis for demanding accountability. Nonetheless, it is important to state that an effective reduction of the tax burden on citizens is a function of the fiscal regime present in the country. This implies that, if the elites can successfully demean or worsen fiscal institutions by not financing them, they would have the incentive of lowering the tax burden on its citizens and this would prevent the formation of groups that are inclined towards demanding for credibility and accountability from governments. Case studies of Algeria and Tunisia revealed oil-rich states engaged in activities that obstruct the formation of social groups because this aided the development of democracy (demand for accountability).

The problem with African resource-endowed countries is therefore quite obvious: developing countries need money to spend on the provision of social services such as healthcare, education, infrastructure, and so on, for this reason, they need to mobilise more resources to improve the provision of these services. However, the main rationale behind their low internal revenue such as taxation is because building and improving upon the fiscal regime is not in the best interest of the political elites in these countries. This is because enhancing the fiscal institutions indirectly means that the government can now generate higher domestic revenues, since it now has a strong tax base, qualified officials, and good facilities which would aid effective taxation, and also translate into more accountability from governments. In the event of increasing resource rents, the political elite engages in resource revenue grabbing and a deliberate refusal to improve the fiscal institutions and regime, so as to reduce scrutiny from electorates, providing the elites with a higher probability of remaining in power. This could be one of the reasons why resource abundant developing countries encounter challenges in generating sufficient revenues through other sources including taxation. If the

fiscal regime is strengthened and domestic revenues are generated in ways that promote accountability, then the fiscal regime in resource abundant developing countries can become a facilitator for improved state performance. However, Block (2002) explains that leaders in developing countries use fiscal policy strategically to influence their probability of remaining in power. It is therefore reasonable to conjecture that leaders deliberately do these to remain in power and be less accountable to citizens.

Besley and Persson (2009) show that investment in tax capacity determines the maximum feasible level of taxation a state can set. They argued that the tax revenue received from nationals serves as a source of the state's provision of public goods such as healthcare systems, effective communication system, *inter alia*. As a result, an inefficient fiscal regime impedes the amount of public goods and development projects that can be provided in the states. This therefore implies that the deliberate decisions of the elite class to neglect the improvement of the fiscal regimes, not only reduces the level of taxation and revenue they can collect but also limits the amount of public goods that can be provided to the electorate. This effect is however, welfare and development decreasing.

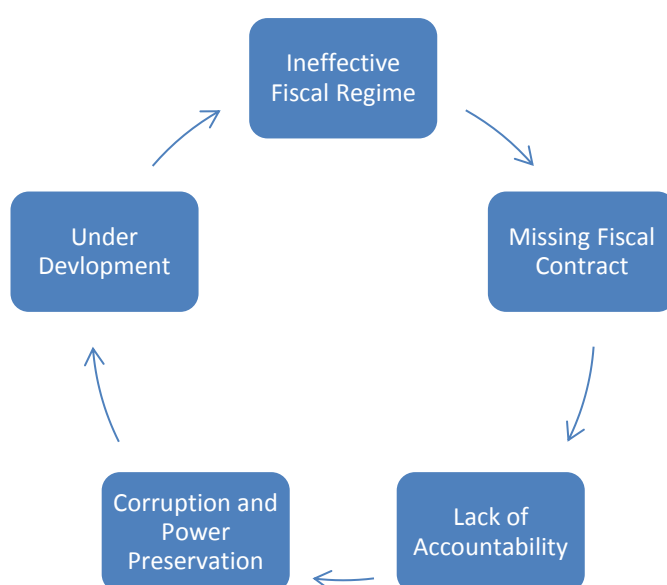


Figure 1: Vicious Cycle of Natural Resource and Accountability

Source: Adapted from Devarajan, Ehrhart, Le, and Raballand 2011 and modified by Author

The diagram above explains that natural resource-rich developing economies are trapped in a vicious cycle through the calculated and deliberate decision of the elite political class not to improve their fiscal regimes. A weak fiscal regime would undermine domestic revenue through lower taxes on citizens, and this is based on the assumption that taxation capacity determines the maximum level of taxation that can be set. Therefore, a weak tax capacity translates to low taxes, which reduces the electorates' ability to scrutinise expenditures of the

elite class and demand for accountability. Following from this, the elite political class enjoys an increased probability of retaining power because of the reduced tax burden placed on the electorates. This in turn enhances the low provision of public goods in favour of non-productive goods and further incentivises the elite class towards a weakening fiscal regime in the country.

THE POLITICAL ECONOMY GAME

An effective fiscal regime in itself increases revenue but holds a potential beam of scrutiny on the elite class expenditure of both tax revenue but more importantly natural resource windfalls. It, therefore, becomes a political game between two players (the elite political class and the electorate). The elite political class is presented with the strategies of altering the existing status quo (by enforcing an effective fiscal regime) or not, with payoffs of more demand for accountability, losing political clout and power or less demand for accountability, self-enrichment and power preservation respectively.

Suppose an ideal hypothetical situation where revenue is an exclusive function of taxation.

$$R_1 = f(T) \text{ ----- (i)}$$

Given the following assumptions:

- (i) *Optimal equilibrium is achievable where supply = demand*
- (ii) *Service provision (U)¹ only occurs through revenue (R).*
- (iii) *(R) can either only be expended on (U) or grabbed (G)² due to lack of accountability*
- (iv) *U and G are mutually exclusive: $P(U \cap G) = 0$*
- (v) *All R generated comes at a cost (C) to both the elite class and the electorate.*

Where: cost per player = $C/2$

$C/2$ for electorate is tax burden

$C/2$ for the elite is investment in institutional strengthening of tax effort/capacity.

This cost comes with certain externalities in a manner that is directly proportional to supply and demand of scrutiny and accountability.

If only one player contributes to C, then the player bears (C) alone.

¹Service provision (U) includes all activities engaged in by the political elite class that improve livelihood of the electorates

²Grabbing (G) includes all corrupt expenditure such as embezzlement of state funds and power preservation expenditure for the benefit of the political elite class and does not provide utility for the electorate

Game1: Revenue with no Resource Rent

	Elite		
		Contribute	Don't
Electorate	Contribute	A ₁ (R ₁ -C/2) (R ₁ -C/2)	B ₁ (R ₁ - 0) (R ₁ - C)
	Don't	C ₁ (R ₁ - C) (R ₁ - 0)	D ₁ (0,0)

In A₁, revenue generated comes at a cost to both elite and electorate. Based on the assumptions earlier stated, A₁ is an optimal situation where the elite bear revenue generation cost by investing in tax effort and capacity. Furthermore, they are open and willing to supply accountability. In a similar vein, the electorate bears the revenue cost by paying tax and are open and willing to demand accountability. On the assumption that optimality is achieved where supply is equal and proportionate to demand, therefore it is assumed that all revenue is judiciously used in service provision *ceteris paribus*.

In B₁, revenue generated comes at no cost to the elite. Based on the assumptions earlier stated B₁ is a suboptimal situation where only the electorate bear the cost of revenue generation through payment of tax. It is assumed, that there will be a significant moral hazard incentive in this scenario for the electorate to shunt tax payment, hence, the sub-optimality. Therefore there will be the demand for accountability with no supply. To address the sub-optimality is the need for government investment in tax effort and capacity.

In C₁, revenue generated comes at no cost to the electorate. Based on the assumptions earlier stated, C₁ is a sub-optimal situation where only the elite class bear the cost of revenue generation through investment in tax effort and capacity but with little or no reciprocal increase in tax payment by the electorate. Therefore it is assumed that the elite class is willing and able to supply accountability, with no reciprocal accountability demand from the electorate, hence, the sub-optimality. This however provides the elite class with the moral hazard to shunt investment in tax effort and capacity to save cost; thereby reducing the supply of accountability.

In situation D₁, there is no cost for revenue generation to both players; therefore, there is no demand or supply of accountability.

Game2: Revenue with Resource Rent

	Elite		
Electorate		Contribute	Don't
	Contribute	A_2 (RR, = $R_1.A_1$)	B_2 (RR, $\neq R_1.B_1$)
	Don't	C_2 (RR, $\neq R_1.C_1$)	D_2 (RR, 0 $R_1.D_1$)

Where: R_1 = represents taxation revenue in Game1, (\neq) = sub-optimal, (=) = optimal, (0) = Zero

Additional Assumptions

- (vi) Elite class do not consider depletive nature of resource and market volatility.
- (vii) Resource rent (RR) is constantly flowing in and is an exogenous source of revenue with mutual exclusiveness to all forms of endogenous revenue sources (revenue from taxation as in Game 1).

In A_2 , where there is optimality in endogenous revenue sources, it is assumed to create externalities that will maintain an optimal equilibrium accountability situation.

In B_2 , similar to B_1 , there is no cost to the elite class thereby creating a suboptimal situation. Resource rent creates additional revenue that will benefit from an unaccounted expenditure pattern. Similarly, the moral hazard issues in B_1 remains.

In C_2 , similar to C_1 , there is a cost to the electorate thereby creating a suboptimal situation. Resource rent creates additional revenue that will benefit from an un-demanded accountability pattern. Similarly, the moral hazard issues in C_1 remains.

In D_2 , similar to D_1 is a zero accountability situation. The economy completely relies on resource rent. There is a complete disconnect between the elite class and the electorate where there is no demand and supply of accountability (broken fiscal contract). This scenario, therefore, allows the elite class to expend RR completely based on discretion. This situation provides the most convenient situation for the elite class to embezzle funds. Perhaps this is the most synonymous situation to what obtains in most African resource-rich nation states.

Effectively, it can be posited that accountability is a public good that conforms to market mechanisms. The lack of demand for accountability creates a surplus in the supply of non-accountability. "Non-accountability" glut creates a situation where the incentives for corruption exceed its cost thereby making corruption relatively cheap and easily accessible. In essence, it can be inferred that the lack of accountability which is a public good albeit a negative one, breeds corruption, which is ultimately a "Public bad".

CONCLUSION

In conclusion, a judiciously developed fiscal regime could be an exigent framework for the alleviation of poverty and income disparity reduction. Fiscal regime in many natural resource developing economies is often regressive: that is they exasperate disparateness in income and inequality (Cobhams, 2005). Martens (2007) revealed that the past two decades had witnessed inequality hike in 53 out of 73 developing economies. Progressive fiscal regime imposes a higher burden of tax on those with higher income levels, and also tax allowances and transfer benefits for the poor fractions of the society and thereby making a profuse contribution to the reduction in inequality gap. Also, this improves the well-being of the poorest people of the society and hence gives them some feeling of inclusiveness. An improved feeling of inclusion provides them with a platform to be able to hold their government responsible and demand for accountability. This helps in checking the excesses of governance and corruption and as such fosters good governance.

From a policy perspective, resource-rich economies should invest part of their resource rents into improving their capacity to tax (with adequate human resources, effective checks and balances, provision of modern technology) so as to subsequently tax its citizens optimally and also reduce its dependence on oil revenues. Also, this can create an optimal situation where citizens hold government accountable and allows efficient expenditure.

Finally, the mechanism analysed in this study explains a part of the political economy resource curse explanation. Possible extensions to this could be to view the link between resource rents, taxation, corruption and accountability. It could be that resource rents might lead to an increase in corruptible practices from the leaders which in turn finances unproductive investments which reduces the provision of productive public services.

REFERENCES

- Acemoglu, D., Johnson, S. and Robinson, J. (2001), "An African success story: Botswana",
- Acemoglu, D. and Robinson, J.A.(2006), "Economic Backwardness in political perspective", *American Political Science Review*, 100(1) pp. 115-131.
- Asongu, S., (2015). "On taxation, political accountability and foreign aid: empirics to a celebrated literature", *South African Journal of Economics*, 83(2), pp. 180-198.
- Asongu, S. and Nwachukwu, J. (2017). "Is the Threat of Foreign Aid Withdrawal an Effective Deterrent to Political Oppression? Evidence from 53 African Countries", *Journal of Economic Issues*, 51(1), pp. 201-221.
- Auty, R.M. (2001), *Resource abundance and economic development*, Oxford University Press.
- Baskaran, T., (2014).Taxation and democratisation. *World Development*, 56, pp.287-301.
- Bazdresch, C. and Levy, S., (1991). Populism and economic policy in Mexico, 1970-1982.In *The Macroeconomics of Populism in Latin America* (pp. 223-262).University of Chicago Press.
- Bergman, T. (2000), "The European Union as the next step of delegation and accountability", *European Journal of Political Research*, 37(3), pp. 415-429.
- Besley, T. and Persson, T., (2010).State capacity, conflict, and development. *Econometrica*, 78(1), pp.1-34.
- Bird, R. (2008), "Tax challenges facing developing countries", *Institute for International Business Working Paper*, No. 9.
- Block, S.A., (2002). Political business cycles, democratisation, and economic reform: the case of Africa. *Journal of Development Economics*, 67(1), pp.205-228.
- Brautigam, D. (1991) *Governance and Economy: A Review*, Washington, DC: World Bank.
- Caselli, F. and Cunningham, T. (2009), "Leader behaviour and the natural resource curse", *Oxford Economic Papers* 61(4), pp.628-650.
- Boix, C. (2003), *Democracy and Redistribution*, Cambridge: Cambridge University Press.
- Caselli, F. and Michaels, G. (2009), "Resource abundance, development, and living standards: evidence from oil discoveries in Brazil", *NBER Working Paper*, No15550.
- Cobham, A. (2005)*Taxation Policy and Development*. Oxford: Oxford Council on Good Governance (OCGG Economy Analysis No 2).
- Collier, P., (2008), *The Bottom Billion - Why the Poorest Countries are Failing and What We Can do About it*, New York: Oxford University Press
- Crystal, J. (1989), "Coalitions in oil monarchies: Kuwait and Qatar", *Comparative Politics*, 21(4), pp. 427-443.

Devarajan, S., Raballand, G. and Le, T. (2011), "Direct Redistribution, Taxation, and Accountability in Oil-Rich Economies: A Proposal", *Center for Global Development Working Paper*, No. 281

Entelis, J.P., (1976). Oil wealth and the prospects for democratisation in the Arabian Peninsula: The case of Saudi Arabia. *Arab Oil: Impact on the Arab Countries and Global Implications*. New York: Praeger, pp.77-111.

Havro, G. and Santiso, J. (2011), "Benefiting the resource-rich: how can international development policy help tame the resource curse?", *IDS Working Papers*, 2011(355), pp.1-54.

Ibietan, J.(2013) Corruption and public accountability in the Nigerian public sector: Interrogating the omission. *European Journal of Business and Management* 5(15), pp.36-40

Karl, T.L. (2007) 'Ensuring Fairness: The Case for a Transparent Fiscal Contract' in M. Humphreys, J. Sachs and J. Stiglitz (eds) *Escaping the Resource Curse*, pp. 256–85. New York: Columbia University Press.

Klitgaard, R. (1988). Controlling Corruption. Berkeley, CA: University of California Press.

Leite, C. and Weidmann, J. (1999) Does Mother Nature Corrupt? Natural Resources, Corruption, and, Economic Growth, *IMF Working Paper* WP/99/85, Washington, DC: International Monetary Fund

Martens J. (2007) The precarious state of public finance; tax evasion, capital flight and misuse of public money in developing countries – and what can be done about it'. Global Policy Forum; pp. 1–54

Mathias, P.F. & O'Brien, P.K. (1976), "Taxation in Britain and France, 1715-1810. A Comparison of the Social and Economic Incidence of Taxes Collected for the Central Governments.", *Journal of European Economic History*, 5(3), pp. 601-650.

McGuirk, E.F. (2013), "The illusory leader: natural resources, taxation and accountability", *Public Choice*, 154(3-4), pp. 285-313.

Mehlum, H., Moene, K. and Torvik, R. (2006), "Institutions and the Resource Curse", *The Economic Journal*, 116(508), pp. 1-20.

Moore, M., Unsworth, S., Knowles, C. and Hickman, N. (2007), *How Does Taxation Affect the Quality of Governance?* Institute of Development Studies at the University of Sussex.

North, D.C. and Weingast, B.R. (1989), "Constitutions and commitment: the evolution of institutions governing public choice in seventeenth-century England", *The Journal of economic history*, 49(04), pp. 803-832

Odife, D. (2004), Diversifying the Nigerian Economy for Sustainable Development speech at the Opening Dinner Manufacturers Summit "Mapping the Future of the Manufacturing Industry in Nigeria" held at the African Leadership Forum, Ota, Ogun State. April 14-16 2004

Piggott, J, and Whalley, J, (2001). VAT base broadening, self-supply, and the informal sector. *American Economic Review* 91, pp.1084–1094.

- Robinson, J.A., Torvik, R. and Verdier, T. (2006), "Political foundations of the resource curse", *Journal of Development Economics*. 79(2) pp. 447-468
- Sachs, J.D. and Warner, A.M. (2001), "The curse of natural resources", *European Economic Review*, 45(4), pp. 827-838.
- Sala-i-Martin, X. and Subramanian, A., (2013).Addressing the natural resource curse: An illustration from Nigeria. *Journal of African Economies*, 22(4) pp. 570-615
- Salami, A. (2011), "Taxation, revenue allocation and fiscal federalism in Nigeria: Issues, challenges and policy options", *Economic Annals*, 56(189), pp. 27-50.
- Schneider, Friedrich, Enste, Dominik H., (2002). Shadow economies: size, causes, and consequences. *Journal of Economic Literature* 38, pp.77–114.
- Scholz, J.T., (1998). Trust, taxes, and compliance. *Trust and Governance* 1(1), pp.135-166.
- Tilly, C., (1992). *Coercion, capital, and European states, AD 990-1992* (pp. 100). Oxford: Blackwell.
- Ukah, M.E. and Udochu, E., (2012). Corruption and Sustainable Development in Nigeria: An Appraisal. *Journal of Nigeria Languages and Culture* 13(2), pp.135-156
- Vandewalle, D. (1998), *Libya since independence: Oil and state building*, IB Tauris Publishers.
- Van der Ploeg, F. (2011), "Natural resources: Curse or blessing?" *Journal of Economic Literature*, 49(2), pp. 366-420.
- Vicente, P.C. (2010), "Does oil corrupt? Evidence from a natural experiment in West Africa", *Journal of Development Economics*, 92(1), pp. 28-38.