Extractive industries versus human development?
Toward sustainable economic development in sub-Saharan Africa

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Abstract

Lynch (2012: 154) compellingly argues that there are "lessons that South Africa can learn (and has not learnt) from post-independence histories of other African states, and the lessons that other countries can in turn learn (and are not learning) from the continent's political and economic powerhouse". This juxtaposition (South Africa/'Africa') is particularly pertinent in the case of extractive industries.

Firstly arguments about this sector have long played a prominent role in the broader debate about the determinants of economic development. The growth acceleration of sub-Saharan Africa since the mid-1990s, with some signs of improvement in income distribution and social indicators, led to optimism that 'this time' the region would 'genuinely' develop. In this ideological environment, arguments questioning the sustainability of growth paths so heavily dependent on commodity exports and financialisation, although compelling, tended to have little policy impact (Arbache and Page, 2009; Fine, 2012; Capps, 2012; Bond, 2013; Besada et al. 2015). Consequently extractive industry policy in the post-Cold War era in the region has been primarily based on the logic of 'what is good for business is good for development' (Baxter, 2013; Cawood and Oshokoya, 2013). This is not to say that a secondary logic of state intervention (correcting certain market failures and gaps in social provisioning) does not exist. Indeed, as market optimism has waned in the last decade this secondary logic has become more influential. However, it remains distinctly subordinate to the primary 'trickle down' logic.

Secondly, South Africa and other sub-Saharan countries have not merely shared parallel experiences. South African capital and policy makers have been active in the expansion of extractive industries into the rest of Africa. Clearly, for market optimists this is a good thing. However, for radical authors it makes the problem of shifting the growth path particularly intractable. Authors like Bond (2013), Robinson (2015) and Wilson (2015) have argued that the emergence of BRICS, which has the characteristics of a 'resource superpower', can be regarded as reinforcing South Africa sub-imperial role in the continent.

This paper makes three contributions. Firstly, it explores sub-African growth paths empirically. It argues that the post-1995 improvement in economic growth is not spectacular in comparison to other developing regions. This suggests that growth has been driven by exogenous global factors (especially commodity demand). Furthermore, signs of trickle down and 'qualitative development' are weak. Sub-Saharan Africa still lags dramatically in crucial areas (for example, savings, sectoral structure, and tertiary education) and did not converge with other regions in structural or human development terms during the growth episode. Secondly, the paper considers the relationship between extractive industry and human development at the conceptual level. These consideration suggest that what is 'good for business', particularly in the extractive sphere, is good for human development only if certain stringent conditions are met. Furthermore, growth without human development is unsustainable. Indeed, human development plays a crucial causal role. This throws the emphasis on the third contribution of the paper, namely recent arguments about regulation and taxation of the sector.

Contents

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Key words: extractive industries; social development; sub-Saharan Africa; post-apartheid South Africa; regulatory structure.

1. Introduction

> In spite of its potential, the primary sector in Africa has often been seen as contributing little to economic development. Previous attempts to diversify frequently came at the expense of commodity production, particularly agriculture, and resulted in slow growth (African Economic Outlook, 2016).

Natural resource endowments are often regarded as providing African countries with '*unique opportunities*' for socio-economic development. The argument is that, since natural resources, energy, minerals and agriculture will remain the continent's comparative advantage for the foreseeable future, mineral-resource rich African countries must build a resource-based industrialisation strategy, beyond supplying raw material to the world economy. This would be some combination of two components. Firstly, it would foster '*linkages to industrial clusters*' through upstream, downstream and sidestream industries, which over time would promote diversification and feedback to increasing value-added to extracted resources. Secondly (and particularly to the extent that such clusters are insufficient) rent transfer from the mineral sector would be used to develop other industrial, infrastructural and social projects.

These arguments do not deny the processes that generate the resource curse. Rather they claim that such problems can be and are being mitigated by appropriate policies and institutions. Basada *et al.* (2015: 3) sum up this 'stylised fact':

> over a decade of research on natural resource governance in developing economies has made one finding abundantly clear; the extent to which the positive benefits of resource extraction are attained–and corruption, environmental destruction, and civil conflict avoided–is shaped by the quality of governance over the activities of the key actors involved, particularly extractive companies and host governments …

The counter-discourse is that this puts the cart before the horse. Genuine economic development is difficult enough, and the argument that resources offer African countries a unique opportunity should be set against the argument that mineral extraction is a '*uniquely complex*' form of development. The *economic* problems associated with mineral based development are in principle tractable; the real difficulty lies with the socio-political domain. In particular extractive industries are associated with the empowerment of elite alliances (domestic elites and a trans-national capitalist class) which have little incentive to broaden development, and every incentive to resist planning and redistributive efforts by the state. Pointing out that 'good institutions' reverse the resource curse is as futile as pointing out that markets operate perfectly in the presence of perfect information.

This is not 'Afro-pessimism'. Rather it is that the 'good tale' of African growth in the last two decades must not be used to sweep problems under the carpet (Fryer, 2016: 125). The very real issues associated with mineral-based development need to be faced squarely. Resource nationalism, and the rights of communities *not* to extract what is under their land, need to be seriously entertained. The implication is that current growth trajectories may have to be significantly changed, and that the main focus of developmental effort will have to be elsewhere. This paper suggests that this effort may well be founded in *human* development, and (as the title indicates) that mineral 'wealth' (and the muddied discourse around mineral wealth) may be hampering such a change in trajectory.

The paper is structured as follows. Section 2 examines the broader development debate in the light of sub-Saharan economic history since 1995. It argues that superficial indictors of economic success (especially economic growth) have papered over what should have been clear signs of unsustainability and arguably lead to an over-sanguine view of policy. Section 3 turns specifically to mining. It documents how the optimistic view influenced policy formation regarding extractive activities in sub-Saharan Africa. It argues that a more detailed reading of the evidence overturns this optimism decisively. In many parts of Africa, opposition to mineral based development is assuming a class character, with community-based movements becoming increasingly cynical about arguments that mining and other large scale 'development' project do them any good. Perhaps these voices should be listened to. Section 4 concludes.

2. Developmentalism and the sub-Saharan African experience: 1995-2015

2.1 Theoretical considerations: developmentalism vs. liberalism; industrialisation vs. human development

It is useful to identify two grand divisions in the literature on economic development. The first of these concerns the debate about the desirability of a 'developmental state'. Crudely put, this debate is about the *primum mobile* of economic development. In liberal economics this role is taken by the market. In this view the prospects for African development are good because the abundance of unexploited resources (and other unexploited opportunities) means that returns must be high. This implies that profitability will be good and hence investment will be forthcoming (from foreign sources if local savings, entrepreneurship and expertise are scarce) *provided* that essentially political impediments can be removed. The following is a fairly typical argument:

> Although growth has largely been driven by crude oil production and exports [in Angola], it has also paved the way for fiscal expansion and an outward shift in domestic demand. Together, these trends have stimulated other sectors of the economy, including financial services, construction, manufacturing and agriculture. Moreover, aside from important oil and gas reserves, the country is endowed with other valuable natural resources. It is the fifth diamond producer in the world and holds reserves of iron ore, copper, feldspar, gold, bauxite and uranium. Hydroelectricity, fishing, forestry and agriculture are some of the underexploited sectors that have huge economic development potential (Jover *et al.* 2012: 9).

Neither classical liberalism nor neo-liberalism denies an important regulatory and redistributive role for the state. The evolving perspective of the World Bank (the self-appointed guardian of the 'conventional wisdom') and in particular the Bank's flagship publication the annual *World Development Report* (WDR) is a good indicator of this.[1] On the one hand, there is increasing recognition that intervention by the state[2] and by civil society organisations including trade unions is required to

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[1] The World Bank group's *practice* may be substantially less moderate than the view presented in the WDRs (van Waeyenberge *et al.* 2011), which in turn is far from perfectly aligned to the 'state of the art' presented in mainstream development economics and labour economics journals. The World Bank view is without doubt more influential on donor and government policy than 'highbrow opinion'.

[2] The 'capable state', a term which is familiar from the NDP, has become a favourite orthodox notion (see for example, World Bank, 1997; Rodrik and Subramanian, 2009; NPC, 2011). In this view a capable state only takes on what it can manage and should not be tempted to try to solve all market failures and inequalities. The less developed the country, the smaller the set of activities the state will be able to manage.

'correct market failures', and mitigate inequality. On the other hand, however, this pragmatism operates within strict limits: the essential message remains that globalised markets are the carriers of prosperity and democracy. Interventions need to 'fit' with this narrative: i.e. they should smooth (i.e. *regulate* in the classic sense of the word) the functioning of markets, not impede them. This is evident in orthodox thinking about social reproduction[3], financial regulation and macroeconomic policy (Baker, 2013, Watkins, 2010) and industrial policy (Lin, 2009; McMillan and Rodrik, 2012). In short, neoliberalism is completely open to 'modifications' of the free market provided these serve the underlying social purpose.[4]

What *is* denied by liberal economics is the core tenet of *developmentalism.* This is the need for a *developmental* state that is *embedded* 'from the bottom up' in society. The developmentalist position regarding the necessity of a 'developmental agency' (an alliance in which the state takes the lead role) is clear. Although certain activities will be profitable (extractive industries and a few consumer-good industries in the lowest income countries; a somewhat wider set of activities in middle income countries) the obstacles to diversification and upgrading are decisive and cannot be overcome by 'the market'. These obstacles can be divided into two. First, there are the disadvantages of backwardness, i.e. the rampant and interlocking market failures which affect the socio-economic and institutional sphere as well as the economic. Secondly, in addition to this, there is the *competitive disadvantage* which results from the historical fact of uneven development—and in particular that 'more developed' countries have acquired a cumulative advantage in increasing returns activities.

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3 For critical accounts of shifts in orthodox thinking on welfare and social insurance, and in particular the shift to 'private' and 'non-contributory' pillars, see Lavinas (2013); Cichon (2013); Holzman (2013); Antia and Lanzara (2011); and Teichman (2008). Inequality itself is no longer seen as entirely 'residual' but as contributing to market failures (particularly by undermining access to credit, human capital, social cohesion, etc.) and hence a drag on economic efficiency. Even the IMF has dropped the idea that there is a 'tradeoff' between equity and efficiency. The following passage illustrates how much but also how little has been conceded: "It may seem counterintuitive that inequality is strongly associated with less sustained growth. After all, some inequality is essential to the effective functioning of a market economy and the incentives needed for investment and growth ... But too much inequality might be destructive to growth. Beyond the risk that inequality may amplify the potential for financial crisis, it may also bring political instability, which can discourage investment. Inequality may make it harder for governments to make difficult but necessary choices in the face of shocks, such as raising taxes or cutting public spending to avoid a debt crisis. Or inequality may reflect poor people's lack of access to financial services, which gives them fewer opportunities to invest in education and entrepreneurial activity" (Berg and Ostry, 2011: 3).

4 Cammack (2002: 126-7) point out that the World Banks poverty alleviation programme "The defining feature of global neoliberalism, however, is that it articulates, and seeks to implement, a strategy that will both hasten the process of primitive accumulation—or proletarianization—and enforce the laws of capitalist accumulation throughout the enlarged space of the market economy. It portends, therefore, an epoch-making revolution. In this context, the World Bank's outwardly progressive anti-poverty strategy, far from being a shift away from the neoliberal revolution, is a means to completing it."

The developmentalist argument therefore is (as stated by Evans, 2010: 37) that "[h]istory and development theory support the proposition 'no developmental state, no development'". What defines developmentalism is recognition not so much that the state is necessary to stimulate development (although this is certainly important). Stimulus (whether caused by state policy such as tariffs or by an exogenous factor such as an increase in export demand) raises profitability but this does not necessarily induce diversification or the emergence of strong producers capable of reaping scale economies and competing internationally. Therefore for development to be sustained the state must also play a disciplining and planning role.

'Embeddeness' refers to the political consideration that the state is unlikely to achieve these outcomes without developmental alliances. This links to two critically important Keynesian themes. Keynes (1936: chapter 24) referred to the 'euthanasia of the rentier class' and to the 'somewhat comprehensive socialisation of investment'. Finance (the rentier class) is the real 'commanding heights' of the economy. Without breaking the power of financial capital a developmental state can have little control over the country. The *class* dimension of development that this introduces is very obvious. The relevance of financial dominance not just in Africa (particularly by foreign capital in the form of transnational corporation and 'financial markets') but globally is clear (Michl, 2011; Streeck, 2011; Bond 2013; Robinson, 2015; Fryer, 2016: 129-30; Bond, 2013). Keynes focussed on the dominance of finance as a class. In developing countries, the position is complicated by remaining 'aristocratic' elements (large land owners and traditional authority), and often the military (Mamdani, Rueschemeyer et al. 1992 Mnwana, 2015; Hillbom, 2011). Marxists have tended to emphasis in addition the oppression of subordinate classes, and the tendency, in Mamdani's terms, to produce disempowered *subjects* rather than citizens (see Mnwana, 2015. This illustrates one of the most important *Marxian* themes: that economic growth in the absence of changes in the social relations of production is unlikely to lead to genuine capitalist development (Brenner, 1977). For most of sub-Saharan Africa, the reason industrialisation failed was not (contrary to the conventional wisdom) the economic one of import substitution 'ran out of steam'. It was because, with some exceptions, it was ever really *tried.* This was because the state was embedded with elite structures (both domestic and transnational) and industrialisation was *simply not in the interests of elites* (See Hillbom, 2011 for the contemporary case of Botswana). The contrast with a rentier or liberal state that is embedded 'from the top down' in the global system (Best, 2002) and local elites and one which is embedded 'from the bottom' up in communities that would benefit from development (Fryer, 2016) should be clear.

The second major division in thought concerns the centrality of *industrialization* in the development process. Despite the fundamental differences in *how* industrialisation is to be achieved, both liberal and heterodox development economists have stressed industrialisation (with the leading role traditionally taken by manufacturing, but including 'manufacturing-like' activities in extractive, agricultural and service activities)[5] as the engine of development, It is important to note that although the term 'trickle down' is associated with liberalism, it is in fact the route by which *qualitative* development (structural change, human development, and deepening democracy) is supposedly achieved in most versions of development. Both envisage development in the leading sector *leading* to structural change, poverty reduction, and social upliftment.

The major criticism of this is that industrialisation, at least the iconic 19th and 20th Century forms of industrialisation, is no longer developmental. The argument is that the industrial sector simply no longer delivers Kaldorian propulsive growth. McMillan *et al.* (2013) argue that adverse structural change (the shift of labour into lower-productivity sectors) has been a characteristic of 'late development'. Even in countries like China, where manufacturing value added continues to increase rapidly, manufacturing growth has tended to be jobless because of rapid productivity growth. Consequently, industrial development remains narrowly based and merely entrenches the dualism that pervades African economies. Rather than mining evolving in the direction of becoming more 'manufacturing like' (as Morris *et al.* 2012 contend), 'industrial development' has in fact developed many of the adverse 'enclave' characteristics associated with extractive industries. The problem with such developments is that 'exogenous' impetuses to growth (whether these are stimulated by commodity booms or government policies such as import substitution) do not become

5 The argument is that "[c]hanges in the global economy … have created a class of economic activities in agriculture and services that more closely resemble manufacturing than the sectors to which they are assigned in economic statistics" (Page, 2012: 94). This seems to support a liberal approach (countries that can specialise in 'tasks' in global value chains in agricultural products, for example, can experience 'industrialisation without smokestacks' based on their natural resource endowments). Furthermore, there is an argument that natural resource based development (such as large-scale mining developments) can, by stimulating demand and though infrastructural development) 'open up' regions to such side-stream development. However, the evidence, discussed below, is that there is very little sign of these kinds of activities developing at any sort of scale in Africa. The possibility that these sectors can be part of a refocused developmentalist effort is discussed below.

'endogenised'. Investment booms do not lead to sustainable investment transitions and when the exogenous stimulus disappears, investment collapses. To put it plainly, development does not 'stick'.

This analysis implies that for both economic and political reasons countries need to follow a 'balanced growth' path with both economic growth and human development. Empirically, this argument is compelling.[6] Put differently, according to this evidence *trickle down never works*. As mentioned above (see note 3) even mainstream economics has acknowledged that inequality is a hindrance to development.

This has two very important implications for developmentalism. Firstly, as various authors have argued, the political dimension of development is heightened considerably. A broader development policy demands a much broader developmental alliance. In earlier periods, an alliance involving local capitalist elites (the so-called national bourgeoisie) and the state could (conceivably) be developmental merely by acting in its own interests. Chibber (2005) argues that is was in fact not the case in the post-colonial period and that the national bourgeoisie in fact proved a very poor development ally. Notwithstanding, in the current era, a developmental alliance would have to be encompassing, including peasant movements, organised labour, landless and unemployed movements, and various other grass roots movements (Vergara-Camus, 2013; Lindell, 2010; Hart, 2007; Evans, 2010; Bayat, 2009; Selmeczi, 2015).

Secondly, the economic policy package would have to be more nuanced. In addition to macro and industrial policy, there would also need to be what might be called 'social democratic' realisation of the *developmental* importance of the 'social' sphere. An even broader conceptualisation is in terms of shifting the emphasis from productivity to *reproductivity* (Mölders, 2013), where the latter

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6 For example Ranis et al. (1997) describe four types of performance in the global sample of developing countries in the period 1970-92. These are 'virtuous', 'vicious' and two types of 'lop-sidedness'. HD (human development) lop-sidedness means there is good HD but weak growth. EG (economic growth) lop-sidedness means having strong economic growth which is not accompanied by human development. In the vicious cycle, both human development and growth perform poorly and in the virtuous cycle, both human development and growth perform well (Ranis et al., 1997: 19). Ranis et al. (1997: 21-22) conclude that: "Our most significant finding is that… in the case of EG-lop-sidedness, *all the cases* reverted to a vicious cycle… Our analysis suggests that it is not possible to move to virtuous via EG lopsidedness, as this proved a dead end" *[emphasis added]*. This broad empirical conclusion is complemented by numerous other contextual and explanatory studies (Kay, 2002).

encompasses economic, human, and ecological sustainability. In South Africa in particular, there is increasing grassroots political pressure to reform the extremely dualistic systems of agriculture, healthcare, education and welfare systems. There is also pressure to engage in meaningful land reform, as well as to invest in the green economy. One aspect of this is what Morel *et al.* (2012) call the 'social investment welfare state'. The proposed NHI reform is explicitly couched in social investment terms, for example, and meaningful reform of basic and higher education systems is even more obviously developmental. It is worth emphasising that agricultural and rural development policy would have to be given priority.[7] Finally t is important to note that although this way of thinking is in some senses associated with a radical shift away from globally integrated large scale industrialisation (particularly with regard to food sovereignty), in another sense it does echo 'traditional' developmentalist arguments. There is mounting evidence, not least from developing countries like Cuba (Jover *et al.* 2011;) that public education and healthcare investment can form the basis for value chains, for example in pharmaceuticals. Indeed the potential of 'transformed' education, healthcare, renewables, and welfare systems to play a transformative role can be conceptualised in familiar Kaldorian terms.[8]

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[7] It is important to mention that agriculture appears to be an indispensable ingredient to promote industrialisation, particularly at early stages of development. Most successful developing countries, particularly in East Asia, invested in improving agricultural productivity (Lai, 1989). In Japan and the East Asian tigers, rural income remained about 60% of urban income in the 1960s and 1970s, whereas in China in the 1990s and 2000s it was never above 40% (Hung, 2009: 13). This ability to avoid excessive 'urban bias' (Bezemer and Heady, 2008) helped to set a foundation to facilitate the structural transformation process. Land reform played an important role in East Asia and in parts of Latin America (Bottazi and Rist, 2012).. "In postwar East Asia, under the diverse political regimes of China, Japan, Korea and Taiwan, land reform had attacked the single most important dimension of rural disparity: the separation between ownership of land and labor on it. In so doing, it laid the groundwork for rapid and relatively broad-based economic growth in the second half of the twentieth century … But efforts to extend land reform to south and southeast Asia, in countries such as India, the Philippines, and Vietnam, ran into formidable obstacles … [M]ajor impediments [were] the power of landlords, U.S. discomfort with coercion, and the growing dominance of large farms in the U.S. itself. Even more fatal, however, was the contradiction between land reform and U.S. backing for governments that relied for political survival on landed elites …" More generally "The transnational elite alliance that defended oligarchy in the name of freedom did not face a challenge from below from a comparable transnational alliance fighting for more democratic distributions of wealth and power." (Boyce, 2012: 198).

[8] Renewables constitute an obvious 'new' industry. Technologically, renewable energy and particularly solar is very close to overcoming the 'baseload' problem. Economically renewables exhibit Kaldorian characteristics. As Mathews and Reinert (2014: 16) argue … "The firms, regions and countries that specialize in the manufacture of renewables can count on being able to enjoy rising levels of power generation, from a given base, without regard to the geographical and physical constraints that apply to fossil fuels and other commodities that are extracted from the earth. Moreover the countries that specialize in power production from manufactured renewable power systems can expect to enjoy strong developmental effects, as one industrial value chain interacts with another value chain and the two generate further interactive effects, or synergies. These are the source of systemic increasing returns, and the more a country produces them, the more benefits the country will enjoy."

Keynes' phrasing in his famous dictum 'the somewhat comprehensive socialisation of investment' ('*somewhat'* and *socialization* rather than nationalization) suggests that developmentalism is a concept that is as open to historical specificity (and interpretation) as economic liberalism. Although his thinking does bear the stamp of genuine developmentalism, Keynes himself argued that the state's role would be relatively broad-brush.[9] Developmentalism has tended to become associated with a *moderate* interpretation of the role (and nature) of the state. In particular, it has been interpreted as *industrial* policy (or at best *productive* policy) with macroeconomic and social policy treated as *terra incognita*. Because liberalism and developmentalism both tend to be modified in the direction of a 'mixed economy', the division between developmentalism and liberalism can become blurred. This is particularly so with orthodox economics which has a very deductive methodology and tends consequently to 'discover' one-size-fits-all solutions to ubiquitous market failures. There is even an appearance of synthesis (Fryer, 2016).

This blurring is very important, as will be discussed below, because it has allowed an 'optimistic' interpretation of African development trajectories over the past two decades. Improved superficial indicators mean there is a tendency to gloss over problems such as those associated with free mining, elite dominance, and the mode of incorporation of African economies into the global system. In particular, it has allowed optimism around a rather vaguely defined set of policies that seek to industrialise the economy and in particular to 'leverage' large scale development projects based on natural resources (extractive, agricultural, and energy based). However, the difference is profound and is worth repeating. A liberal state merely seeks to guide the economy along the path determined by its evolving comparative advantage: in other words, it smooths the path for capital. It does this by adapting a very limited industrial policy (by facilitating movements of factors of production and trade, providing 'institutions' that allow returns to be appropriated by investors, and correcting market failure in, for example, skill and innovation markets) and by mitigating the ill-effects of development (poverty and externalities) to the extent that these impede capital accumulation. A developmental state is premised on the recognition that the trajectory needs to be changed profoundly. Indeed a very powerful theme amongst modern developmentalists (Huang,

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[9] Keynes' position is fairly clear in chapter 24 of the General Theory (1936) provided this is read in conjunction with his writings from the 1920s (See Crotty, 1999). Keynes emphasised measure to control the rentier class (low interest rates and capital controls) and socialisation of investment through the fiscus and via the mechanism elite networks and corporatist pacts.

2002; Westra, 2006; Chibber, 2005; di John, 2009; Austin, 2010; Evans, 2010) is that development has become progressively more difficult and that the more liberal paths followed by earlier waves of developers are no longer open. Consequently modern developmentalism requires a stronger planning role for the state and in particular a strong response to financial capital.

2.2 African development trajectories since 1995

As the discussion of Section 2.1 suggests, development requires more than economic growth. This section assesses whether sub-Saharan Africa's recent growth acceleration reveals signs of sustainable development, particularly in terms of structural change and human development. For more detailed (country level) and panel data analysis, see Hadisi (2013).

Table 1: Growth rates per capita (constant 2005 US dollars).

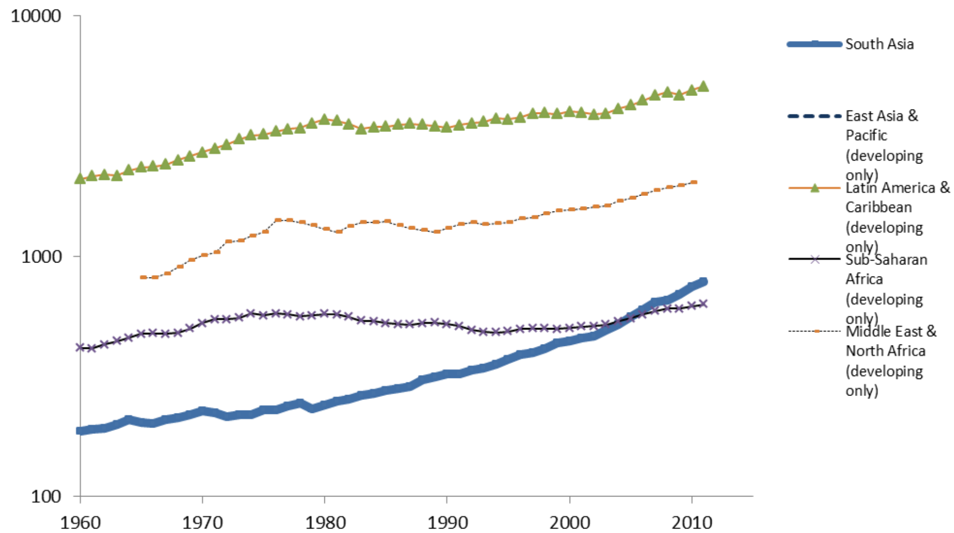
	1960s	1970s	1980-1994	1995-2004	2005-2012
East Asia & Pacific	6.4%	2.6%	3.1%	2.3%	3.5%
Latin America & Caribbean	2.8%	3.5%	0.4%	1.1%	2.3%
High income OECD	4.3%	2.6%	2.0%	2.0%	0.6%
Euro area	4.8%	3.2%	1.8%	1.7%	0.4%
Sub-Saharan Africa	**2.0%**	**1.3%**	**-1.2%**	**1.2%**	**2.2%**
South Asia	1.8%	0.6%	2.9%	3.9%	5.5%

Source: World Bank (2013). Authors' calculations.

As Table 1 indicates, sub-Saharan Africa has experienced a growth acceleration from the mid- 1990s. However, there are indicators that this *follows* the trend of the global economy, and that that sub-Saharan African growth is not exceptional compared to other developing regions.[10] As Figure 1 indicates, sub-Saharan Africa remains significantly behind EAP (East Asian and Pacific) and LAC (Latin America and Caribbean), and has been surpassed by SA (South Asia) in GDP per capita terms.

[10] The figures presented in Table 1 are weighted averages. For EAP, the very high rate of growth is primarily due to China. EAP's unweighted average growth rate for 1995-2011 was lower than that for SSA. However, the SSA average is also skewed by two outliers, Liberia and Equatorial Guinea, the two fastest growing economies in the world. SSA also includes the largest number of countries that experienced negative growth over this period. The unweighted averages, excluding the extremes (top ten and bottom ten percent of countries in each regional sample) for 1995-2011 are LAC 2.2%, SSA 2.0%, SA 4.2%, EAP 1.7%.

Figure 1: GDP per capita (constant 2005 US dollars), log scale



Source: World Bank (2013). Authors' calculations.

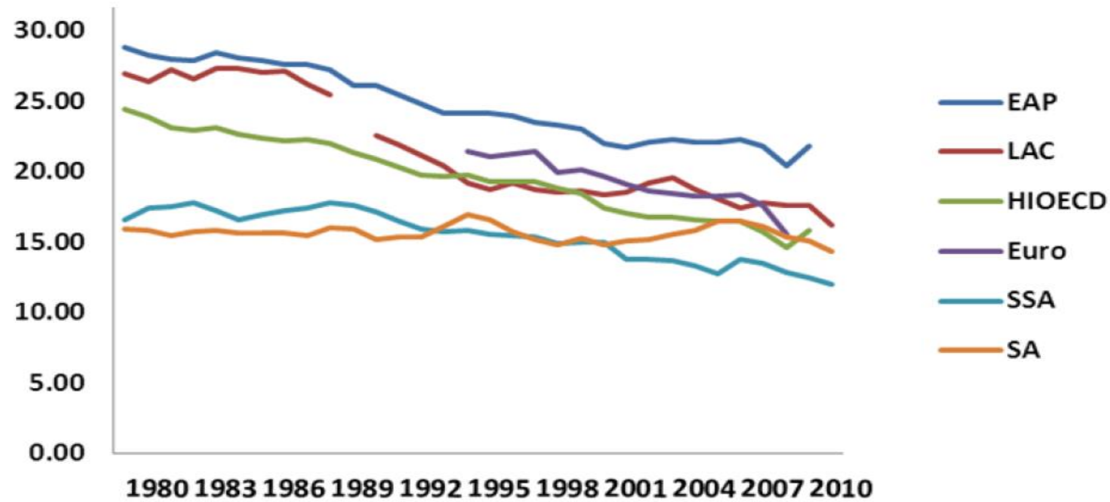
This suggests that sub-Saharan African growth has been 'exogenously' driven. In other words, it has benefited 'passively' from the growth of the global economy rather than from its own internal development (Garcia-Verdu et al., 2013). There are two obvious 'exogenous' factors. Firstly there is the demand for commodities—in particular generated by 'emerging markets' such as China and India (African Economic Outlook, 2013). A second important factor that has been global in scope has been 'financial development' (see Yu *et al.* 2012; Ashman *et al.* 2014) and the flow of funds to 'emerging markets' and the proliferation of credit-fuelled consumption demand. Both of these effects continued in the post-GFC period because of continuing growth in China and India and because of the effects of quantitative easing (Lavigne *et al.* 2014). But both are clearly subject to reversal, as indeed happened in 2014 and 2015.

[Table 2 about here]

Sub-Saharan Africa's growth pattern supports this hypothesis. Table 2 shows that sub-Saharan Africa's exports are a large share of GDP compared to other development regions. However, this this can be explained by the contribution of extractive sectors (this is discussed further below). Arbache and Page (2009) show that during the growth episode, increases in trade and exports as a share of GDP were more frequent in resource-rich economies than the non-resource-rich sub-

Saharan African economies and that oil exporters grew faster than other all other sub-Saharan African economies, at approximately 4.5% per year.

Figure 2: Manufacturing as a share (%) of GDP



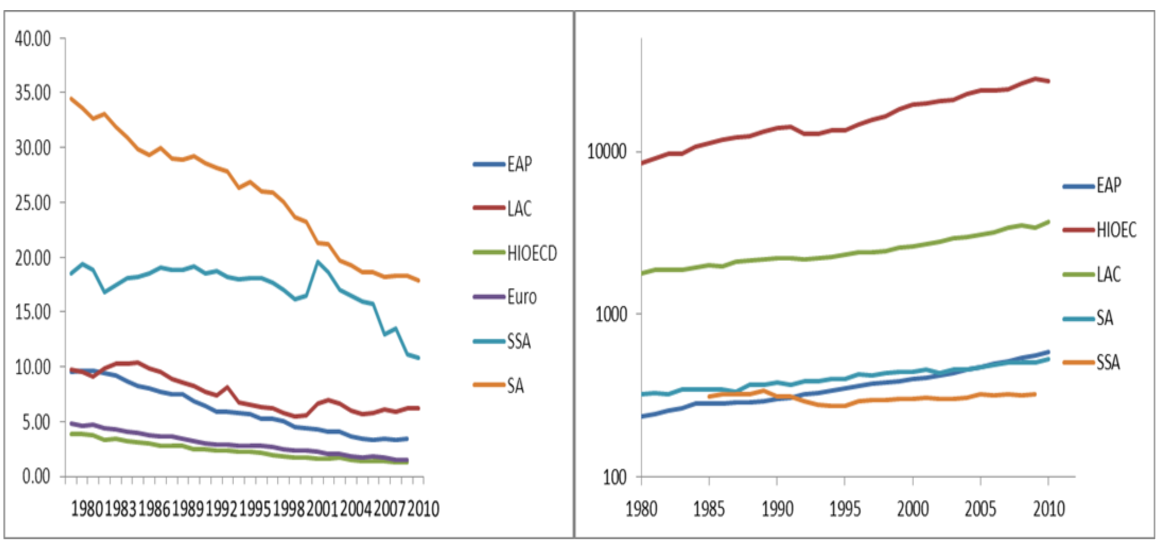
Note: EAP-East Asia and Pacific; LAC-Latin American and Caribbean; HIOECD-high income OECD; Euro-Eurozone countries; SSA-sub Saharan Africa; SA-South Asia.
Source: own calculations from World Bank (2012)

In certain African countries adverse structure change has been marked. For example, in Nigeria and Zambia employment in agriculture appears to have risen as workers displaced from manufacturing and services sectors return to rural areas (McMillan *et al.* 2013: 21). McMillan *et al.* (2013: 23-4) claim that there was a 'remarkable turnaround' from adverse structural change to growth enhancing structural change in the 2000s in Africa, and that this was at least in part caused by an increase in manufacturing. However, the World Bank data do not bear this out. Of the 29 sub-Saharan countries for which data is available, in only seven did manufacturing value added increase as a share of GDP in the 2000s. Figure 2 and Table 2 show the aggregate picture. While 'industry' has increased its share of GDP in sub-Saharan Africa, manufacturing has not (see also Fox and Oviedo, 2013; Page, 2012). The pattern of exports reinforces this. Sub-Saharan African manufactured *exports* are dramatically low compared to other regions, and continue to decline as a share of GDP (see Table 2). Although all regions have experienced some degree of 'deindustrialisation', sub-Saharan Africa's poor diversification relative to other regions is noteworthy.

Furthermore, Page (2012: 87) argues that whereas in China and India upgrading in agro-industry and tradable services have given these industries some of the 'developmental' potential traditionally ascribed to manufacturing, there is no sign of this occurring at sufficient scale in Africa. Figure 3 (panel b), appears to bear this out. Value added per worker is dramatically lower in sub-Saharan Africa agriculture than in other regions, and uniquely, has not increased since the late 1980s (see also Garcia-Verdu et al., 2013; Janvry and Sadoulet, 2010: ii12- ii13; Dembélé and Staatz, 2008: 3; Page, 2013). Sub-Saharan Africa's agricultural sector remains under-developed and unable to satisfy the needs of the majority of the sub-Saharan African population living in the traditional sector. As a result, the unskilled labour surplus moving from the agricultural sector becomes a burden on the urban sector, increasing the level of poverty and unemployment (Janvry and Sadoulet, 2010: ii10-ii11). Sub-Saharan Africa continues to experience considerable risk of food insecurity (Vidal, 2016). In sum, sub- Saharan Africa still appears to be characterised by primary sector and tertiary dominance.

Figure 3: Agriculture

a) Value added (% of GDP) b) Value added per worker (constant 2000 US $)



Source: World Bank Database 2012 (World Development Indicators).

[Table 3 about here]

Table 3 shows savings and investment performance. Sub-Saharan Africa's gross capital formation has increased as a share of GDP. However, it still remains weak compared to East Asia and Pacific and South Asia. Furthermore, the investment acceleration is not matched by a significant increases savings as a share of GDP. Gross savings remains low in comparative perspective (see Table 3). This pattern reinforces the notion that sub-Saharan Africa has not moved away from primary sector dominance and supports the argument that sub-Saharan Africa has not begun to go through an 'investment transition' (Akyuz and Gore, 2001). Sub-Saharan Africa remains heavily dependent on external sources of funds.

Apart from the structural transformation considered above, low human development seems to be part of the main problem of 'sustainable development'. Figure 4 presents data on the human development index. From 1990 to 2011, sub-Saharan Africa's HDI improved slightly. In comparison, the HDI in East Asia and Pacific (EAP) and Latin America and Caribbean (LAC) showed a much more marked improvement from a higher base, and South Asia overtook sub-Saharan Africa. There were also some signs of slight improvements in income distribution in sub-Saharan Africa in this period. However, much more dramatic improvements occurred in Latin America (ILO, 2008: 9; Lustig *et al.* 2013; Lavinas, 2013).

Figure 4: The human development index

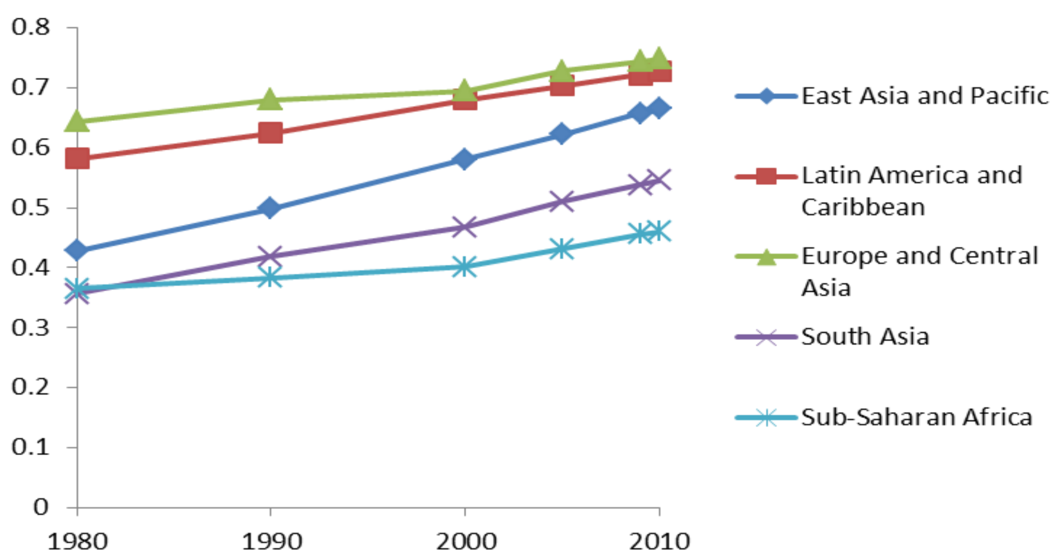


Table 4 presents other social indicators used to evaluate sub-Saharan African growth sustainability. From 1990-1995 to 2011, life expectancy in sub-Saharan Africa improved slightly, while in all other regions life expectancy has significantly improved. Infant mortality decreased significantly in all regions, including sub-Saharan Africa. Despite this, sub-Saharan Africa's infant mortality rate is still dramatically higher than in other regions. In terms of 'human capital' the picture is the same. Primary education enrolment (which is often used as an indicator because of its supposed 'public good' characteristics) has improved to over 100% in many countries. However, in the emerging service and knowledge economy the ability to 'massify' tertiary education (both academic and vocational) is critical (Altbach *et al.*, 2009). Although sub-Saharan Africa enrolment has increased, it is evident that it is again a dramatic outlier (see SARUA, 2012, for an assessment of the dismal state of sub-Saharan higher education) compared to other developing regions. Even in South Africa, enrolment remains below 20% (FFC, 2012).

[Table 4 about here]

3. Are African mineral resource policies moving in a developmental direction?

Table 5 and Figures 5 and 6 illustrate the key problematic and what is at stake in resource rich Africa. African countries, even many not regarded as mineral dominated, remain heavily dependent on mineral exports. These exports are extremely volatile both from year to year and in response to longer term global dynamics (such as the fortunes of the BRIC economies). FDI inflows are also dominated by the extractive sector (see Bezuidenhout, 2015: 5; Weng *et al.* 2012). However, mining constitutes a relatively small proportion of Gross Domestic Product even in countries like Zambia, South Africa and Botswana. Even more tellingly, mining constitutes a minute and usually shrinking proportion of the workforce. Even in South Africa, mining employment has dwindled to a mere 3% of total employment.

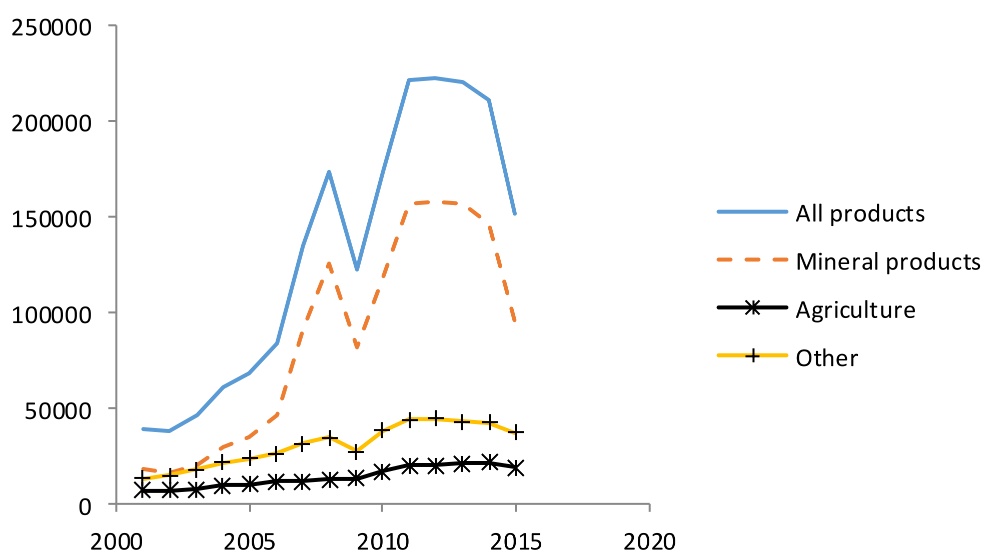
Table 5. Mining export dependency and volatility: 2011-2015.

	Botswana	Zambia	South Africa	Tanzania	Mauritius	Malawi	Angola	Nigeria
Mining exports/total exports[1]	90%	77%	53%	49%	8%	7%	98%	89%
Volatilty[2] of exports	2.1	1.5	1.3	1.7	1.2	1.3	2.2	2.9
Volatilty of mining exports	2.1	1.5	1.5	2.1	2.7	10.2	2.2	2.6
comparators	Cuba	China	Brazil	India	Russia			
Mining exports/total exports[1]	27%	7%	32%	39%	77%			
Volatilty[2] of exports	2.0	1.2	1.3	1.3	1.6			
Volatilty of mining exports	3.5	1.3	2.0	1.5	2.0			

Notes: 1. Average for 2011 to 2015. 2. Maximum value divided by mininum value for 2011-2015
Source: TradeMap.

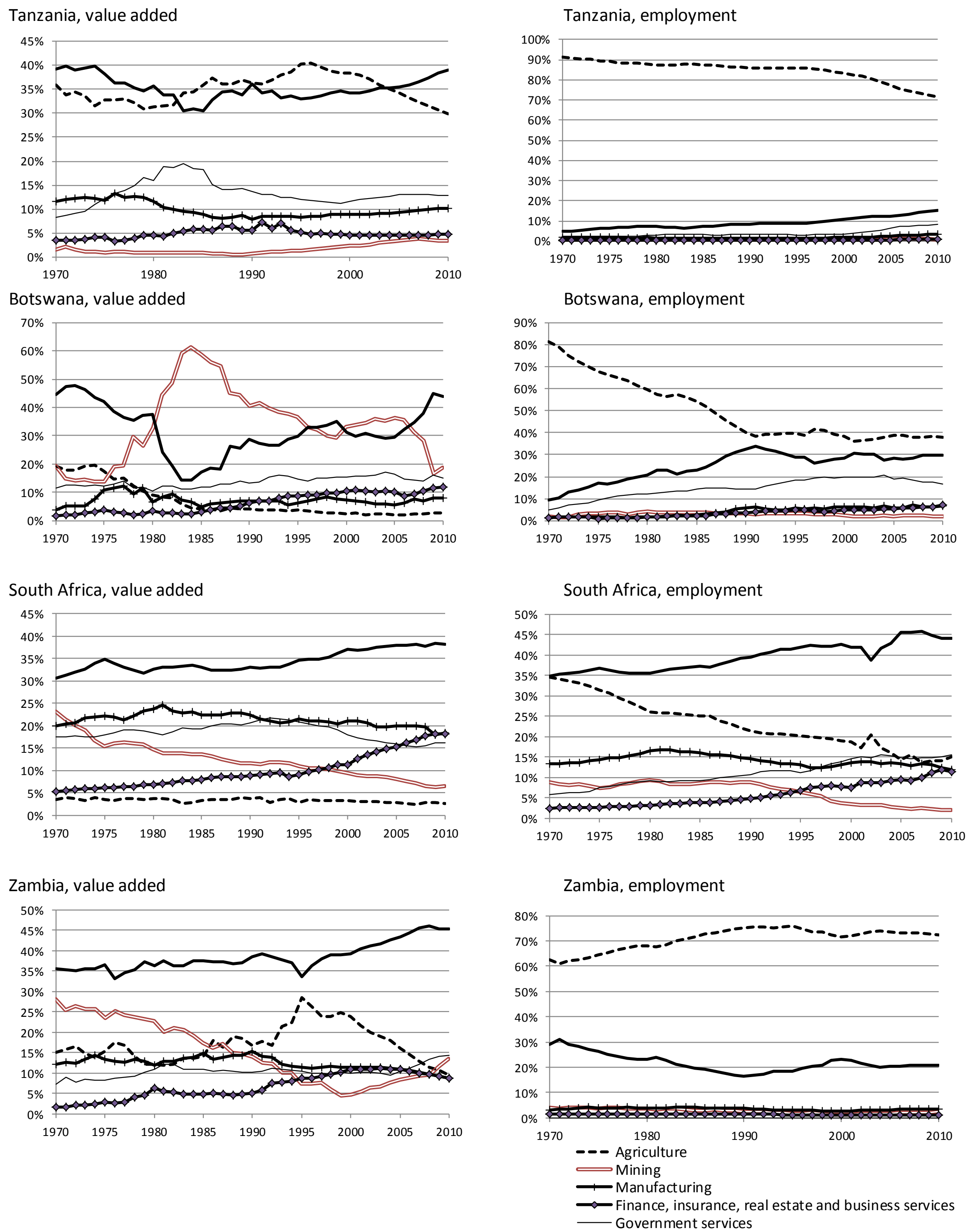
This means that the key conduit through which many African economies interact with the global economy—the mining sector—exerts only a moderate *direct* influence on the economy and a very small direct influence (via employment) socially. The mining sector can literally take the form of extraction of wealth, not just from the ground but from the region. In addition to this, the potential for the key elements of the resource curse (environmental destruction, balance of payments instability, 'enclavistis', damage to other sectors, and rentier dominance) is clear. Without some mechanism to leverage mining for the broader economy and to mitigate other ill-effects, mining can seem a bad deal indeed for many stakeholders.

Figure 5. Merchanise exports from SADC countries ($US 1 000 000)



Source: TradeMap.

Figure 6: sectoral evolution of GDP and employment shares: Tanzania, Botswana, South Africa, Zambia



Source: GGDC 10 Sector Database

Given these dangers, it is useful to pose three critical questions. Firstly, to date, how well have mineral-rich African countries done in avoiding the resource curse, and more importantly, shifting toward a genuinely developmental path? Secondly, what prospects are there for making the switch? Thirdly, how likely are currently envisaged policy frameworks to be effective in this regard?

3.1 How well have mineral-rich African countries done in avoiding the resource curse?

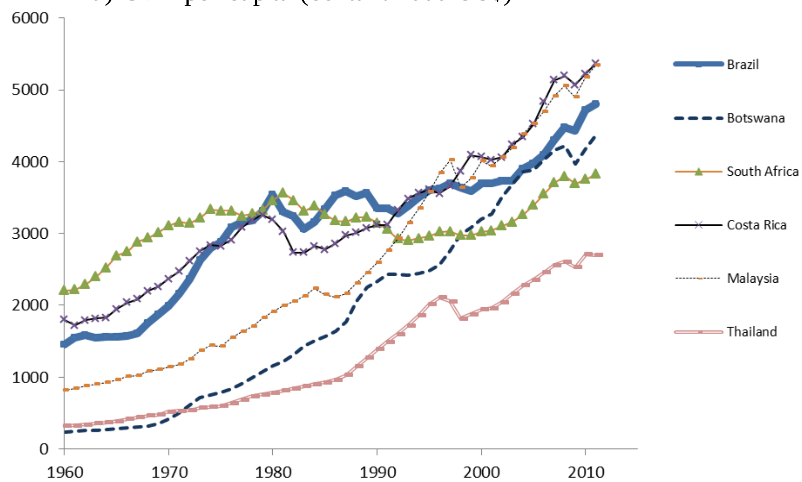
Various authors have singled out African countries that have "[g]ood enough governance … [and] have been using their resource-wealth to stimulate high growth, create strong private sectors with additional jobs, and transform their development path towards achieving sustainable and inclusive outcomes" (Besada *et al.* 2015: 4). Besada *et al.* single out Botswana, Namibia, Ghana and Mozambique. Morris *et al* (2012) also single out relatively promising cases, focussing on linkages. Linkages are weak but improving in Botswana and Angola. They are fairly well developed in South Africa, and to a lesser extent Zambia, Nigeria and Gabon (Morris *et al.* 2012: 413). Morris et al. (2012) argue that there is evidence of positive interaction between resource activity and growth, and that mining firms linked to global value chains are tending to develop linkages to local producers as a consequence of the move to outsourcing tasks. Where linkages are weak it is often a result of underdevelopment of the industrial sector rather than a consequence of the destructive impact of the resource-mineral on industry. Morris *et al* (2012: 412) emphasise *policy* as the critical variable. They emphasise in particularly 'productive policy' (focussing on mining and linked industries and linkages between the two) and suggest a relatively small role for rent transfers. Other authors (such as Besada *et al,* 2015 and Jourdan, 2011) are similarly optimistic that *policy* can be effective, even though their reading of the situations and hence policy mix are different. Jourdan (2011) is less sanguine about the tendency for linkages to deepen as a consequence of global value chain development, and proposes a much more interventionist approach with elements of resource nationalism. This aligns well with SIMS proposals (ANC, 2012) discussed below.

However, it is unclear whether optimistic conclusions can be drawn from these examples. The more detailed and holistic is the analysis of each country, the more problematic each is revealed to be. The contention here is that African extractive regimes are *not* developmental in this sense discussed in this paper, and that they are not moving in this direction. There is considerable policy variation across countries but this variation is between what Wilson (2015a: 403-4) calls *rentier* and *liberal* resource policies. In other words, the model is (*de facto* if not always *de jure*) one in which mining is either private sector dominated (with the state operating as an 'arms' length' facilitator and regulator) or in which the state intervenes in a meaningful but not developmental way. This anti-developmentalist tendency is reinforced at the regional and multilateral level (discussed below).

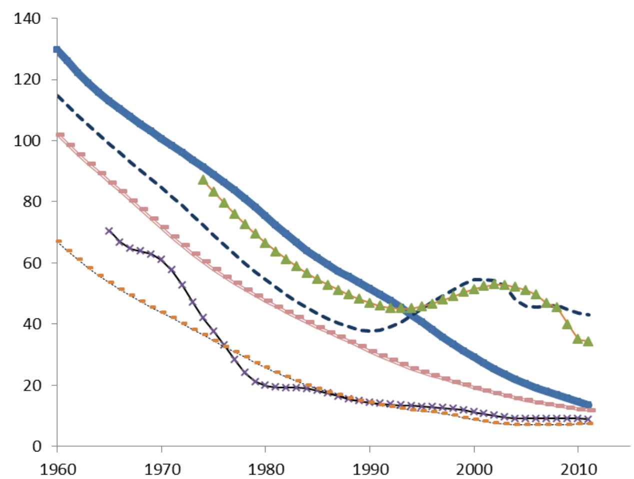
South Africa has the best developed industrial economy of the mineral rich African countries. It has relatively strong linkages between mining and manufacturing and there is little doubt that more could be achieved in this regard through effective policy (Jourdan, 2011; Maia, 2013; IPAP, 2014). However, South Africa illustrates the limits and constraints to this process. In economic and social terms, it remains extremely dualistic. In political economy terms, the attempt to deracialised mining capital using Black Economic Empowerment (Tangri and Southall, 2008; Capps, 2012: 322) and to reform mining practices using processes like Mining Charter can be regarded as a very good vindication of Chibber's (2005) critique of the national bourgeoisie in developing countries. The mining sector has shown itself willing and able to resist planning. One ironic indicator of this is that objections to the inclusivity of the Mining Indaba have not only generated a now well established Alternative Mining Indaba (AMI), but also calls for Alternative Alternative Mining Indaba in response to perceived NGO capture of the AMI (Rutledge, 2016). The development of the platinum belt in the post-apartheid period, with its replication of the similar problems as manifested under apartheid era mining (migrant labour processes, lack of genuine community engagement, environmental destruction) as well as continued profit expatriation, is a case in point (Capps, 2016: 500; Mnwana, 2015; Forslund, 2013a,b). The failure of state policy to make mining more developmental is acknowledged in the SIMS document (ANC, 2012), which can itself be regarded as part of the failed attempt since 2007 to make South Africa more developmental. In this environment it is hard to imagine how the industrial sector could be leveraged for broad based development, unless as part of a much wider policy shift.

Figure 7. Economic and social indicators, selected middle income countries

a) GDP per capita (contant 2000 US$)



b) infant mortality (per 1000 live births)



Source: World Bank (2013)

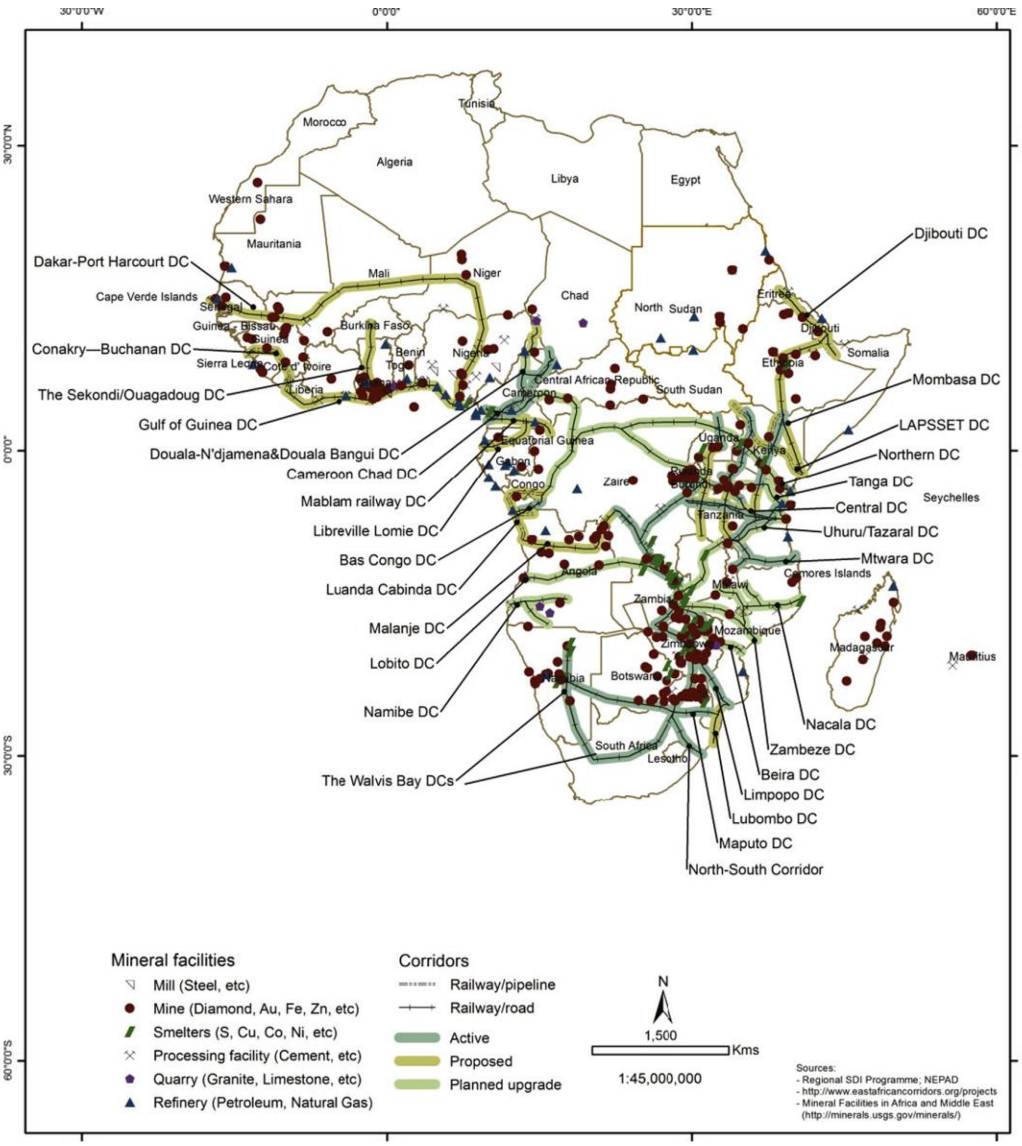
Botswana has been touted as *the* example of an African mineral-based developmental state. This is based on its sustained high growth rates, high social spending, and relatively low levels of corruption. However, Hillbom (2011; 2012) argues convincingly that Botswana is much better conceptualised as a 'gate keeper' state. The superficial economic success and relatively good 'institutions' should be set against a lack of structural transformation (diversification of the economy) and the selective and limited nature of social development (only providing infrastructure and basic needs). Not only (As Morris *et al.* concede) does Botswana's mining core have very weak linkages to (and very poorly developed) manufacturing, agricultural productivity has barely improved since 1960 (Hillbom, 2011: 73). Furthermore Botwana is also characterised by extreme dualism and human development outcomes that are dramatically worse than other countries with similar GDP per capital levels. Figure 7 shows one such indicator in comparative perspective. The political cause of this is clear. The state apparatus and, as a result economic and political power, have remained in the same hands since independence. The state structure enables and encourages elites capture (Hillbom, 2011). The elites controlling the state do not have an incentive to promote diversification (structural transformation) or to shift to a more transformative social policy. The state is good at collecting rents but uses them in a way that is likely to preclude it from moving towards developmentalism. In reality, in Botswana continues to depend on natural resource.

Space precludes a detailed analysis of other African countries. However, a few broad conclusions can be drawn which align with the lessons drawn from Botswana and South Africa. Firstly, although there is some sign of linkage formation, the dualistic structure observed in South African and Botswana are replicated, albeit in different ways (notably, dualism manifest as much larger shares of the population remain in subsistence agriculture, rather than as unemployment as in South Africa and Botswana), in countries like Ghana (Bloch, and Owusu, 2012), Zambia (Fessehaie, 2012), and Mozambique. Secondly, African countries have generally failed to deal with the issues of dominant foreign firms. As in South Africa, mining companies have been willing and able to resist regulatory efforts. Thirdly, the effect on community development and on sidestream activities, even those in the immediate hinterlands of mining developments and in the 'growth corridors' these generate, is ambiguous at best. There are reports of extensive displacement of populations and chaotic poverty-driven and exploitative artisanal mining in mineral concession areas.[11] Although growth corridors associated with extractive industries 'open up' fairly extensive areas, there are serious concerns about 'land grabbing' for monoculture industrial agriculture (in particular oil palm expansion in Mozambique and the Congo basin) and the creation of labour migrancy (Weng *et al.*, 2013: 195-196).

[11] Hilson (2009) argues that not much is that not much is known about the two million or so artisanal and small mine (ASM) workers in SSA. . What is apparent is that much of it is "poverty driven". The relationship between ASM on the one hand and elites (the state, large miners, traditional authority, warlords and gangs) is complex. On the one hand there is low tolerance. On the other hand, large mines and the state are often complicit in artisanal mining and are able to capture rents in various ways. Case study evidence from Ghana, the DRC, Zimbabwe, Uganda, and Tanzania suggest that it is convenient to exploit the informality of ASM which allows mineral extraction without regard to infrastructural, environmental, or human development concerns. The tendency is to regulate (or nationalise) only once the mining becomes so dysfunction that it interferes with the ability of elites to capture rents (The Con, 2016, Gupta, 2015)..

The lessons about the likely outcome of 'opening up' areas to development in the absence of changes to the relations of production, apply.

Figure 8. Development corridors



Source: Weng *et al.* Figure 5.

3.2 What prospects are there for making the switch and how likely are currently envisaged policy frameworks to be effective in this regard?

Optimism that African countries can make the switch is drawn from two sources. Firstly, exemplary cases of success are regarded as showing what is possible. As we have seen the African exemplars are not encouraging. Other success stories include Norway, Chile, Canada, Australia, Sweden, Malaysia etc. Closer inspection however is not encouraging. Malaysia's inclusion in this group has been questioned as there are concerns that it is entering the 'middle income trap' (Doraisami, 2015). Norway was a social democracy with strong institutions long before it discovered oil. The development experiences of Canada, the USA, and Australia, which seem to suggest that 'one thing leads to another', are of dubious relevance for sub-Saharan Africa. They occurred in very different political contexts (settler-dominant colonialism rather than the labour-reserve and 'indirect rule' colonialism typical of Africa) and in an era more conducive to 'catching up' (Austin, 2010). The second source is large multiple country econometric studies. It must be noted that this kind of analysis is highly problematic for econometric reasons and there are a wide variety of claims in the literature (Ploeg et al 2016). However, there does seem to be a reasonably degree of convergence on the 'stylised fact' that evidence for the curse is less clear than is often imagined, and that the critical variable in turning the curse into a blessing is 'institutions' (Boschini *et al.*,.2013). However, as discussed, this does put the cart before the horse.

The critical question is whether resource policy aligns more generally with national policy goals and whether national policy itself is coherent and developmental.[12] Both of the divisions discussed in Section 2.1 are evident in current policy thinking about African development in general and about

[12] Policy and political responses to mining reflect interpretations of (and interests regarding) these various effects and of mitigating policies. At the one extreme is communities and environmental lobbyists resisting mining developments altogether. The other extreme is occupied by advocates of 'free mining' (including large corporates and artisanal miners), who resisting any constraints on mining and exploration activities. Both of these extremes are very important (whether de facto or de jure), and manifest often as conflict between mining companies and communities.

In between these are a range of policy efforts that vary along three axes: rent transfers (taxation and CSR), planning (i.e. policies constraining resource firms from acting as they otherwise would), and complementary policies in linked activities. All three of these outcomes could theoretically be achieved either by regulation and by some form of state or community ownership. Ownership may be a crucial lever, but it does not necessary correspond with control (in South Africa and in many other jurisdictions mineral are owned by the state but licencing cedes control to mining companies; in Botswana state ownership is more meaningful but does not extend to planning). Furthermore, it is important to not to forget that what matters is whether any regime is developmental.

the role of the extractive sector in particular. The various issues that are raised are given very different emphasis, however, in different discourses and by different interest and class groups. On the one hand, there has certainly been a reaction from the extreme free market shock doctrine of the 1990s. As Zalk (2014: 335) writing about South Africa puts it "[a]lthough there clearly have been industrial policy interventions since 1994, there was no formal industrial policy until 2007". Industrial policy is supposedly explicitly integrated with resource policy (ANC, 2012; DTI, 2014). However, the so-called SIMS document (State Intervention in the Mineral Sector) (ANC, 2012) acknowledges that the mineral energy complex has played a decisive role in shaping South Africa's dualism and that policy efforts to date have not been successful in altering this state of affairs. Nevertheless …

> … if governed and directed within the context of a Democratic Development State, as proposed by the ANC's Polokwane National Conference resolution, [the MEC] can also be the basis for the industrialisation of our country, job creation, poverty eradication, and a significant improvement in the lives of all of our people.

On the other hand much of the orthodox economics profession still advocates openness to trade and investment and a minimal role for the state. The same apply to advocates from within the mining sector (Baxter, 2013). There is a tendency to treat social expenditures as a cost (see Ellis *et al.* 2009) and 'green' considerations in a box-checking way (Smith, 2009; Hilson, 2009; Benchmark Foundation, 2013). Mining and financial interests are resistant to macroeconomic and sectoral interventionism. In South Africa, this has led to watering down of the Mining Charter (Tangri and Southall, 2008) and lack of clarity about whether the Charter is even legally binding (Creamer, 2016). The result has been something of a mix-and-match of policies in different spheres and in different countries. Elements of 'developmentalism' can be found in various productive policies. However, in all cases these run against the macroeconomic and social policy current. The former is stuck in orthodox (inflation targeting and financial liberalisation) mode and the latter is stuck in basic needs residualism.

Although we still need to complete this analysis, the preliminary impression is that very similar arrangements are found in many Africa countries, and the dominant policy stance is replicated and reinforced at regional, continental, and multilateral levels (SADC, 1997; AU, 2011; UNECA, 2011). At these levels the thrust is toward a regulatory regime and the encouragement of foreign investment rather than resource nationalism. The BRICS, and particularly the NDB, potentially bring a different dynamic (ORF, 2015; Biziwick *et al.* 2015). However, the worry is that the NDB may also be captured by BRICS construction and mining capital (Bond, 2013; Wilson, 2015b).

4. Conclusion

There is a clear stalemate between the optimistic and pessimistic views around resource-based development strategy through industrialisation. The optimistic view, that mineral wealth can be 'leveraged' to become a positive force for development tends to be based on two types of analysis. These are large scale international panel data evidence and reference to a set of exemplary counties. Both of the problematic, and on the whole, the detailed analysis of sub-Saharan countries seems to suggest two conclusions. Firstly, it is apparent that resource-based development strategy is simply not 'enough'. This would be so even if the other Dutch Disease effects were mitigated. There is no evidence that the linkages referred to in the literature are capable of including a sufficient share of the economy. It therefore seems likely that a strong rent transfer component would be necessary. However, the negative effect of resource rents on the economic and particularly political spheres, render such an institutional arrangement extremely unlikely.

Therefore, the question remains, what next? There is a need to rethink policies which intend to lead towards transformative growth and social strategies. African countries should be more concerned with how to transform their economy capable to address the social development challenges, improving the living standard of people. Besides that, sustainable development in the mining sectors has become the centre of debate from a large number of academics, industrialists and governments (policy-makers). Much has been written on sustainable development in mining sector which contains a wide range of policies which are vague and unclear as to how exactly mining industries can contribute to broad and sustainable development (Hilson and Murck, 2000: 227). Most of these mining sustainability documents are global and national in focus, or are simply broad and sweeping. Truly, speaking little attention has been paid to mines themselves and on interpreting the appropriate role of mining corporations. The problem of most of these legislations about mining have not integrated industrial environmental and socioeconomic issues into analysis, or explained what measures/plans a mine must take to put sustainable development into practice.

So, the important question to ask is, should not Africa's resources-mineral comparative advantage to be utilised and unleashed structural economic transformation? Is it possible for them to find another path? Are African countries, particular, resource-rich countries not able to build a strong tax base in order to launch or promote different developmental strategy? Do African countries needs a strong state intervention or a developmental state system to enable sustainable economic development? These are the questions which push to think beyond the existing ranges of possibilities and constraints.

Once again, the paper does not ignore the crucial role of state institution in promoting socio-economic development. Translating this insight into concrete functionality of effective state institution however is anything but simple. The paper argues, it would be naïve to ignore the complexity around the mineral-resource sector, and only believe that good institutions and legislations will resolve the issues of mining sectors, and contribute effectively to sustainable socio-economic development. This is not say that, it is not impossible to have structure mining sector which benefit the entire economy and break out from the vicious cycle of exploitation (supply raw material and not adding value-added in the whole supply chain of the industry and economy, including manufacture sector). Moreover, it has been suggested that, the state or the government must be able to reflect the national policies and the aspirations of the majority of people to improve local returns from mineral industries activities.

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Tables not embedded in text

Table 2: Economic structure

	Industry value added					Manufactures exports (% of GDP)					Exports of goods and services (% of GDP)				
	1990-1995	1995-2000	2000-2005	2005-2010	2011	1990-1995	1995-2000	2000-2005	2005-2010	2011	1990-1995	1995-2000	2000-2005	2005-2010	2011
EAP	36.68	34.72	32.10	31.26	-----	20.65	20.15	18.78	17.57	-----	20.83	23.50	27.70	24.34	-----
LAC	33.39	29.59	31.91	32.62	30.10	10.66	10.62	10.63	9.20	8.74	17.22	20.25	24.14	19.80	22.61
Hi-income OECD	29.78	27.93	25.60	24.49	-----	15.78	15.32	13.39	11.84	-----	17.71	20.54	21.48	19.73	------
Euro	30.29	28.39	26.87	26.24	-----	17.23	16.89	15.08	13.58	-----	27.41	32.79	36.50	31.59	42.60
SSA	29.81	28.92	30.32	31.15	30.81	-----	4.47	4.73	3.95	-----	26.22	29.36	31.72	28.93	33.10
South Asia	25.65	25.72	26.47	27.89	26.41	11.91	12.15	11.83	10.78	9.22	10.4	12.4	15.7	20.3	22.79

Note: EAP-East Asia and Pacific; LAC-Latin American and Caribbean; Euro-Eurozone countries; SSA-sub Saharan Africa.

Source: World Bank Database 2012 (World Development Indicators).

Table 3: Sub-Saharan Africa compared to other region in terms of gross capital formation and gross savings

	Gross capital formation (% of GDP)					Gross savings				
	1990-1995	1995-2000	2000-2005	2005-2010	2011	1990-1995	1995-2000	2000-2005	2005-2010	2011
EAP	31.34	28.32	25.81	25.96	28.10	32.83	30.57	28.97	30.3	30.66
LAC	20.17	20.4	18.94	21.8	22.32	17.62	17.39	19.15	21.85	21.22
Hi-income OECD	20.90	21.48	20.39	19.69	18.09	20.04	21.31	19.57	18.86	17.39
Euro	21.2	21.04	20.48	20.65	19.54	20.63	21.41	21.34	21.35	19.88
SSA	17.19	17.79	17.98	20.87	21.67	14.93	15.48	15.94	15.86	---
South Asia	22.59	23.87	26.80	32.87	32.13	23.14	23.81	28.62	33.14	30.37

Note: EAP-East Asia and Pacific; LAC-Latin American and Caribbean; Euro-Eurozone countries; SSA-sub Saharan Africa.

Source: World Bank Database 2012 and 2013 (World Development Indicators).

Table 4: Sub-Saharan Africa region compared to other regions in terms of social indicators

	Life expectancy at birth, total years					Mortality rate, infant (per 1,000 live births)					Enrolments, tertiary (% gross)				
	1990-1995	1995-2000	2000-2005	2005-2010	2011	1990-1995	1995-2000	2000-2005	2005-2010	2011	1990-1995	1995-2000	2000-2005	2005-2010	2011
EAP	69.62	70.63	71.66	72.78	74.54	37.86	32.42	25.36	19.23	16.99	8.52	13.48	20.51	26.46	30.11
LAC	69.29	70.99	72.39	73.63	74.39	37.9	30.82	24.18	18.78	16.59	17.23	20.34	27.64	37.44	42.32
Hi-income OECD	75.26	76.54	77.75	78.92	79.67	15.26	11.73	9.2	7.35	6.63	43.4	49.52	56.9	63.53	68.30
Euro	76.65	77.83	79.04	80.32	81.29	6.91	5.31	4.4	3.74	3.508	39.47	49.04	55.5	59.5	62.47
SSA	49.39	49.44	50.77	53.16	55.92	104.47	97.31	86.69	75.57	65.92	3.38	3.95	5.2	6.28	7.56
South Asia	59.42	61.15	62.94	64.62	66.38	79.3	69.6	60.51	48.3	48.3	5.19	6.66	8.99	12.77	15.88

Note: EAP-East Asia and Pacific; LAC-Latin American and Caribbean; Euro-Eurozone countries; SSA-sub Saharan Africa.

Source: World Bank Database 2012 and 2013 (World Development Indicators).