UNITED NATIONS UNIVERSITY
UNU-WIDER

WIDER Working Paper 2017/21

The curse of the one-size-fits-all fix

Re-evaluating what we know about extractives and economic development

Glada Lahn[1] and Paul Stevens[2]

January 2017

United Nations University World Institute for Development Economics Research
wider.unu.edu

Abstract: In the context of falls in extractive commodities prices since 2011, this paper examines the history of thinking about the interplay between extractives and economic development. Just as 'the resource curse' fails as a generic explanation on account of the huge diversity in country contexts, so does the one-size-fits-all governance solution, which international aid agencies, industry, and banks have promoted in support of 'extractives-led growth' since the early 2000s. Asking why the sector has not in many cases yielded more durable economic gains reveals the need for greater attention to a country's capacity to diversify, options for pacing development, and appropriate performance measures.

Keywords: development, oil, gas, resource curse, diversification, economic linkages
JEL classification: B2, O1, Q3, Q4

Acknowledgements: This paper draws on an earlier Chatham House publication entitled 'The Resource Curse Revisited', and the authors would like to thank everyone who assisted with that paper. We would also like to thank Alan Roe for his expert comments and suggestions and Joseph Laredo for his editing.

[1] Royal Institute of International Affairs (Chatham House), corresponding author: GLahn@chathamhouse.org; [2] Chatham House, London

This study has been prepared within the UNU-WIDER project on 'Extractives for development (E4D)', which is part of a larger research project on 'Macro-economic management (M-EM)'.

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9256-245-8

Typescript prepared by Joseph Laredo.

The United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Denmark, Finland, Sweden, and the United Kingdom.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

1 Introduction

The year 2015 marked a notable deterioration in the fortunes of most new and prospective producers of oil, gas, and minerals. Many economies that had been enjoying 7+ per cent annual growth over the previous decade suffered shocks. Under the oil price decline, Ghana hit debt levels of above 70 per cent of GDP; Liberia (where oil has not yet been discovered) dismissed 80 per cent of the staff of its nascent national oil company in an effort to rein in profligate spending; the fall in the price of copper caused Zambia's currency to depreciate by 80 per cent; and Mongolia's debts jumped tenfold in just six years. Countries hoping for a development boost from their natural resources are now having to readjust their expectations. Meanwhile, more experienced exporters have set in motion a combination of spending cutbacks, which have already led to civil strife in Venezuela. In many resource-exporting or *resource-expecting* countries, the signs of unsustainable spending patterns were evident well before the price crash and accusations of mismanagement of wealth, lost opportunities, and wasted resources will dominate their politics for years to come.

The impacts of the debt and austerity measures, meanwhile, will influence the stories we tell about extractives commodities and economic growth.

In the heady days of a rising oil price and seemingly unstoppable growth in raw materials demand from China post 2003, positive stories about the prospects for basing economic growth on extractives were easy to tell. Three decades of economic literature drawing attention to a 'curse of natural resources' became less fashionable in political debates. An industry in how to turn a curse into a blessing in terms of governance advice and consultancy bloomed. However, in reality, the learnings of the past half century and this advice industry seem not to have enabled many exporting countries to avoid the economic ills associated with the resource curse. So perhaps it is time to revisit what might have been missed and also what is new in the current global context for extractives and development.

In this context, this paper revisits the historical evolution of thinking about the interaction between extractives production and export and economic performance.[1] In particular, it revisits the large body of analysis known as 'resource curse' literature, which seeks to identify a link between resource wealth and poor economic performance. It considers how some of this, particularly the identification of bad decision-making and weak institutions as transmission mechanisms, fed into a political fashion for 'extractives-led growth' that has reigned politically for the last 13 years or so. The paper questions this newer agenda, which proposes 'good governance' as the magic formula for turning resource wealth into a blessing. Given that it has not succeeded in saving most resource exporters from some of the resource curse effects—in some cases, economic calamity—where did it go wrong? The paper identifies three aspects that it contends have been marginalized in recent debates: the very different resource bases and country contexts; the problems posed by too rapid a pace of development; and the influences that resource discovery and development have on the political economy—influences that militate against the effectiveness or even implementation of the recommended 'good governance' practices.

There is merit in returning to the resource curse literature to look at the problem afresh. But instead of asking the familiar question of why extractive resources have caused poor performance, it might be more fruitful to ask why they have not helped the rest of the economy to grow. If, as

[1] This literature survey is based upon Stevens (2015). In the interest of brevity, there are several references back to the original survey, which can be found online.

much of the resource literature contends, dependence on rents is the problem, then economic diversification should be the aim. For states dependent on petro-dollars, achieving diversification is currently more urgent than ever. Hirschman's (1977) work on linkages between the extractives sector and the rest of the economy can shed light on the complexity of managing this feat, especially when there is pressure to develop the resources as fast as possible. The paper does not reject the idea that extractives-led growth is possible, but argues that this possibility must be seen within a transition strategy based on 'worst case' depletion timelines and commodity price scenarios. Not all countries will be equipped to manage the planning for that transition. Looking ahead, the paper identifies several aspects in a changing global political and environmental context as important considerations for transition countries—and indeed for anyone studying the interactions between extractives and the economy.

2 An evolution in thinking about the use of extractive resources for economic growth

Simple logic would suggest that nations presiding over large reserves of a below-ground resource valuable to foreign markets are economically privileged in comparison with less well endowed territories. Since at least the 1940s, various arguments in economic development theory supported this assumption. For example, Rosenstein-Rodan (1943) argued that countries must experience a 'big push' in public investment to break out of a self-feeding circle of poverty. The revenue provided by resource extraction can enable this by providing windfall income to finance large-scale capital spending—and, more specifically, allow spending on foreign goods, services, and investment through the generation of foreign exchange. The Harrod-Domar growth model, which dominated economic thinking in the 1960s, supported this idea. The sector should become a 'leading development sector' or 'growth pole', whose success encourages growth in other sectors as wealth and benefits trickle down. Furthermore, historical evidence from industrialized economies such as the UK tends to reinforce the belief that countries should focus on their *comparative advantage* over others. That view underpins the economic argument that a focus on producing primary products should promote growth (see Stevens 2015: 3).

However, there is an even longer-standing observation that abundance (not necessarily in minerals) leads to decadence and negative economic consequences. This goes back at least as far as the 14th century, when the Arab philosopher Ibn Khaldun identified the fifth stage in the evolution of the 'state' as one of waste and squandering (Ibn Khaldun 1377). And in the 17th century, Spain's wealth acquired from the New World appeared to trigger the decline of that country's fortunes, not to forget, of course, the fate of societies in the countries that had been plundered. In the last century, the oil price shocks of the 1970s led to greater scrutiny of the impacts of extractives exploitation and export growth on national economies (Stevens 2015: 5).

Economists studying development in the 1950s and 1960s had already begun to express concern over countries at an early stage of economic development that depended on the export of primary products. Singer (1950) and Prebisch (1964) argued that such countries would find themselves at a disadvantage in trading with industrialized countries because of deteriorating terms of trade. Others reinforced the argument of the negative consequences of producing and exporting raw materials by emphasizing the limited economic linkages generated from primary sectors compared with manufacturing (Stevens 2015: 5).

The observation of declining economic fortunes in countries with an apparent comparative advantage in extractives gave rise to the thesis of a curse of natural resources (Auty 1993) or that of the 'paradox of plenty' (Karl 1997). A large body of work seeking to establish a negative statistical correlation between abundance of natural resources and GDP performance emerged,

beginning in the late 1980s. The evidence at first appeared to support the theory of a negative link; several OPEC countries were shown to have declining GNP per capita over time compared with non-oil-producing countries of similar initial GNP and appeared also to suffer a decline in agriculture and other sectors predating hydrocarbons development. Auty (1994: 22), for example, points out that in Mexico 'by 1982 virtually the entire non-oil economy became non-tradable i.e. in need of total protection or subsidies'.

The Netherlands offers one of the most famous cases of negative impacts on a national economy resulting from hydrocarbons expansion. Here economists drew links between an upsurge in gas export revenue in the 1970s and the declining competitiveness of Dutch manufacturing. As a result of spending natural-resource revenues, the economy overheated and the real exchange rate appreciated, thus making national manufactured products far more expensive for other countries to buy. The result was a contraction in the non-oil/gas/mineral traded sector (Stevens 2015: 14–15).

Over time, however, economists refined their analysis of the mechanisms that turn an apparent blessing into a curse. These mechanisms can be roughly put into two groups. The first relates to the impacts of economic dependence on a primary sector with volatile market prices: long-term decline in the terms of trade, revenue volatility, Dutch disease, crowding-out effects. The second relates to how resource wealth is governed: the increased role of the state, and socio-economic and political impacts (Stevens 2015: 12–27). Naturally, these are not mutually exclusive; in theory, the former could be ameliorated with better policy and spending decisions. The latter largely draw attention to why this does not happen, showing that the presence of resources shape certain socio-political conditions, which in turn reinforce negative economic impacts.

Interest in the effects of extractives growth on the political economy grew from the 1990s onward. This literature most frequently examined how the phenomenon of large flows of revenues from a single source (requiring little labour relative to the revenues generated) that generally accrue to government (as owner of the resource) affects power relations, institution building, and government decision-making. This literature tends to conclude that the special features of extractives sector development are likely to encourage poor governance and thus poor spending decisions and little fiscal prudence (Stevens 2015: 18).

There are several variations on this theme, national dependence on 'rent' that accrues to a small group of government–business elites being a dominant theme. This is alleged to discourage institution-building and encourage 'rent-seeking' (positioning by groups or individuals to elicit transfers of the resource wealth) rather than entrepreneurship and productivity in the economy. A strand of the literature examines the 'rentier state' and its tendency to crowd out productive private sector activity and to cement legitimacy through allocation of resources rather than through democratic competition (see Stevens 2015: 20). Auty (2010) attributes many of the ills noted by the resource curse literature not to resources per se but to the dependence on rent, which can also come from other sources (e.g. aid, canal tolls, security rents).

Closely linked to rentier theories is the notion that disproportionate fiscal dependence on petro-dollars in particular affects the capacity of the government to make decisions (e.g. Karl 1997). Having more money to spend tends to weaken prudence and 'due diligence'. Of notable importance is the tendency of governments not to prioritize investments that enable long-term income generation. This can lead to unrestrained spending on 'prestige projects' using expensive foreign expertise and materials (Stevens 2015: 19). In turn, the lack of need for tax revenues from diverse sources may weaken the prospects for democracy and the development of institutions that provide checks and balances on, for example, government power and spending.

Developing this theme, a branch of the literature considers industrial policy, examining how centralized wealth or 'rent' flows can lead to top-heavy government, prone to market control or intervention. A key 'distorting' aspect is the impetus for government to subsidize chosen sectors and key commodities. In the case of domestically produced energy resources, for example, there is a tendency to provide them cheaply to stimulate supposedly job-creating industries and to prop up the agricultural sector. In the 1970s and 1980s, many resource export-dependent governments adopted an industrial policy based on 'import substitution'. This invariably had two components: (a) the introduction of subsidies and growing protectionism in the form of import controls and (b) favourable taxation of the protected activities. Instead of nurturing industry until it was competitive without subsidy, this approach tended to lead to ever increasing dependence on government support, putting an additional drain on government finances as well as creating powerful lobbies that would resist moves to reform policy (Stevens 2015: 21–22).

Many of the dynamics described above are interlinked and can be seen as self-reinforcing. Dirigiste wealth allocation, state capital spending, and rising subsidies in place of policies to enhance productivity, industrial strategy, and institution building increase a country's dependence on resource income, thus making it more difficult to manage price volatility. They can also lead to a spiral of indebtedness as countries are forced to borrow, not least to maintain political stability, which may be tenuous if government legitimacy is largely based on the distribution of resource wealth.

In this respect, international finance institutions (IFIs) and aid-giving bodies are not necessarily considered neutral parties, and several studies draw attention to their role in worsening resource curse effects (Extractive Industries Review 2003; Hilson and Maconachie 2008; Shaxson 2007).

The resource curse debate peaked in the mid-1990s as analysts looked back at a period of some 20 years of falling commodity prices, and criticisms of the theory began to emerge in the early to mid-2000s as the international prices of oil and other commodities again began to rise. Critiques included claims of selective bias associated with previous studies (choosing only resource-rich countries whose prospects for developing other areas of the economy were poor), a time frame too short to detect real economic impact (the volatile 1970–1990 period in particular), and the inadequacy of the technical approaches used for measuring economic progress and the links to extractives (see Stevens 2015: 7–8).

Of course, adherents to resource curse theory as summarized above usually note that this 'is not an iron law, rather it is a strong recurrent tendency' (Auty 1994: 12). In this regard, and in response to criticism of the IFIs, interest grew from the early 2000s in those countries that had proved to be exceptions in avoiding, or apparently 'overcoming', the curse and how they had done so. Academics and IFI analysts, for example, often cite the cases of Botswana, Chile, and Malaysia as resource development successes. Norway, Australia, and Canada, as well as the US and the UK, could also be seen as having avoided the curse. So why did these countries fare better than others with similar resources? The literature tends to cite as the main reason the strength and quality of their institutions prior to resource development.

The political economy focus that began in the 1990s blossomed into a vibrant debate about governance in extractives-producing countries in the 2000s. Poor governance and institutions became the leading explanations for poor economic outcomes. And this thinking led to the conclusion that good institutions may be able to prevent negative outcomes from resource wealth because they can constrain the predatory behaviour of those who hold political power. Thus, they are a mechanism with which to sever the otherwise negative link between natural resource abundance and poor outcomes (Stevens 2015: 26).

The growth of these ideas was accompanied by the rise of commodity prices—particularly oil from around 2003. Resource exporters' GDP soared. The Gulf Cooperation Council (GCC) members in particular stood out as a sharp retort to those advocating resource curse theories. Here were six petroleum-exporting states that remained highly dependent on their extractives sectors yet could not be judged to be worse off economically than they would have been if they had not developed their resources.[2] As the price of commodities rose, extractives companies made new commercial discoveries in low-income countries and foreign investment flowed in (Stevens et al. 2015). The new questions on the table were: if some countries had done well on the back of resource development, then what was the magic policy formula? And (how) could this be prescribed and transferred successfully to others in the early stages of resource development?

3 The extractives-led growth agenda emerges

These questions, in addition to the desire of many interested parties—including aid-giving countries, multilateral financiers, and extractives companies—for a positive development story, paved the way for what we call the *extractives-led growth agenda*.[3] This is built on a consensus between an influential set of international actors around the idea that, if managed properly, extractive industries can help to drive broad-based socio-economic development in developing countries with extractive resources (see, for example, Africa Progress Panel 2013: 6).

A 2013 McKinsey Global Institute report captures the optimism of commodities prices at their height:

> If resource-driven countries, particularly those with low average incomes, use their resources sectors as a platform for broader economic development, this could transform their prospects. We estimate that they could lift almost half the world's poor out of poverty (Dobbs et al. 2013).

Although the extractives-led growth agenda did draw on academic critiques of the inevitability of resource curse effects, it was arguably more of a policy fashion than a movement based on theory. It was partly born out of a surge of investment in extractives in more challenging regions amid the high (and rising) commodity prices of the 2000s, coupled with an increase in Asian investment strategies focused on foreign resources. From a Western development agency and IFI perspective, the feeling was that countries benefitting from these benign circumstances would develop resources with or without their assistance. Hence their best bet to remain relevant would be to promote better practices. As the Millennium Development Goals and their only partial achievement made clear, the problem of poverty had not gone away and a booming market for commodities appeared to offer a golden opportunity for some countries to address this problem, as well as to 'graduate from aid'.

In developing countries with resources, technocratic and civil society proponents of greater accountability and the improved handling of resource revenues saw global governance initiatives

---

[2] These are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

[3] A diverse set of actors promote this narrative—including donors like the World Bank, the UN Development Programme (UNDP), the development agencies of major donor countries including the United Kingdom, Norway, and the United States, (mainly Western) extractives companies, consultancies such as McKinsey and Tony Blair Associates, Adam Smith International, and civil-society organizations including the Natural Resource Governance Institute (NRGI) and the Africa Progress Panel.

as an opportunity for much needed reforms. Leaders in countries with a poor governance record were looking for a way to improve their image internationally and earn assistance (including aid and debt cancellation). And companies were naturally eager to promote their advantages in good governance over new competitors and to avoid penalties in an environment of increasing anti-corruption legislation in their own countries.

The remedy or preventative for resource curse effects prescribed across the board was good governance, institution building, and best practices in various dimensions of managing the resource. Prescriptions generally involved optimum contractual terms, revenue transparency, institution building, use of stabilization funds, and local (skills and market) capacity building to service, and benefit from, the sector. The Extractive Industries Transparency Initiative (EITI), launched in 2003, and the Natural Resource Charter have been particularly successful in signing up both new and more established producers including Azerbaijan, Equatorial Guinea, Ghana, Kazakhstan, Nigeria, and Timor Leste to processes of governance improvement. Many international extractives companies have also signed up to or added their support to these and other voluntary initiatives. Alongside this, several detailed advisory forums and source materials have been developed to guide producers, including the World Bank-funded *Extractive Industries Source Book*, the Canadian-led Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, and the Natural Resource Governance Institute.

3.1 Has the remedy worked?

In the past 15 years, a wealth of global expertise has contributed to building a body of advice on better resource sector management. However, the record of the new or economically troubled producers at whom much of the advice of the last decade and a half has been aimed, is mixed.

Critiques of the new approaches range from their enabling corrupt governments to gain international legitimacy by cynically joining voluntary governance initiatives (David-Barrett and Okamura 2016; Keblusek 2010) to the problem of advocating 'best practice' standards to countries with little capacity to implement them.[4] The World Bank/Exxon-led Chad–Cameroon pipeline agreement, billed as 'a pioneering effort […] to demonstrate that large-scale crude oil projects, when designed to ensure transparency and effective environmental and social mitigation [sic], can significantly improve prospects for sustainable long-term development' (IFC 2003), is a clear example of how such initiatives can fail (World Bank 2008).[5]

The more globally applied EITI has come in for particular criticism for promising more than it can deliver (Darby 2010; Hilson and Maconachie 2008; Keblusek 2010), and a growing body of analysis is now beginning to look back and assess the impact of the EITI in countries that have adopted it (Alstine 2014; Mejía Acosta 2013; Sovacool et al. 2016). Sovacool et al. (2016: 185) find that '[t]here was not a single governance [or] economic development metric in which EITI countries performed better during EITI candidacy or EITI compliance than pre-EITI as well as better than other country classes.' Furthermore, on most of the standard governance metrics (the exceptions being 'voice and accountability', 'rule of law', and GDP—the last of which can be more readily attributed to the rising oil price during this phase), most member countries registered declines during the candidacy period. This phenomenon is also described by Sovacool and

[4] For example, is it appropriate for a relatively poor country to focus on establishing separate institutions and capacities for the sector in policy-making, regulation, and operations—as Norway does—when it has neither a sufficient number of qualified staff nor enough accumulated knowledge about the sector or the geology? See, for example, Marcel (2013).

[5] Rarely can such a high technical assistance effort to ensure the effective management of oil resources have been derailed so quickly and comprehensively.

Andrews (2015), who posit that governments may have little incentive to continue improvements once candidacy has been achieved.

The strong belief at the outset of the last commodities boom was that the 'lessons learned' from the oil boom–bust cycles of the 1970s and 1980s, combined with improved fiscal policy to tame resource rent spending, would usher in an era of more even budgeting, thus avoiding the pitfalls of the past. Yet, in a sample of 48 countries dependent on exports of oil, gas, and metals[6], Bova et al. (2016: 17) found that 'adoption of fiscal rules or resource funds [does] not have a significant impact on fiscal cyclicality'. In other words, countries tended to dramatically increase government spending during the 2003–2013 boom in spite of putting in place the prescribed measures to prevent this. Ghana, as discussed elsewhere in this series, is a striking example.

Studies on the effectiveness of stabilization funds tend to agree that they 'must be part of a broader package of institutional reforms designed to improve the country's capacity for resource revenue management' (Dixon and Monk 2011: 5) and that their usefulness depends on the quality of public financial management systems (IMF 2007). As the examples of Chad, Nigeria, Iran, and Cameroon demonstrate, where these are lacking, the original aims and rules of the funds are simply not followed (Collier and Venables 2011: 11–17). Even the existence of well managed funds does not preclude unsustainable fiscal policies or the use of fund resources as collateral for reckless borrowing (e.g. Kazakhstan in the 2000s) (Stevens and Mitchell 2008: Appendix 1). As might be expected, Bova et al. (2016) find that fiscal measures were effective only where there were also strong political institutions, as in the typically cited success cases: Botswana, Chile, and Norway.

4 What are the extractives-led development narrative's flaws?

4.1 There is a tendency to prescribe a one-size-fits-all solution

Political history, power relations, geography and geology, demographic structures, culture, economic structure, and level of education all influence how extractives will affect a country's development. And the countries that became the focus of attention on extractives-led growth are vastly different.

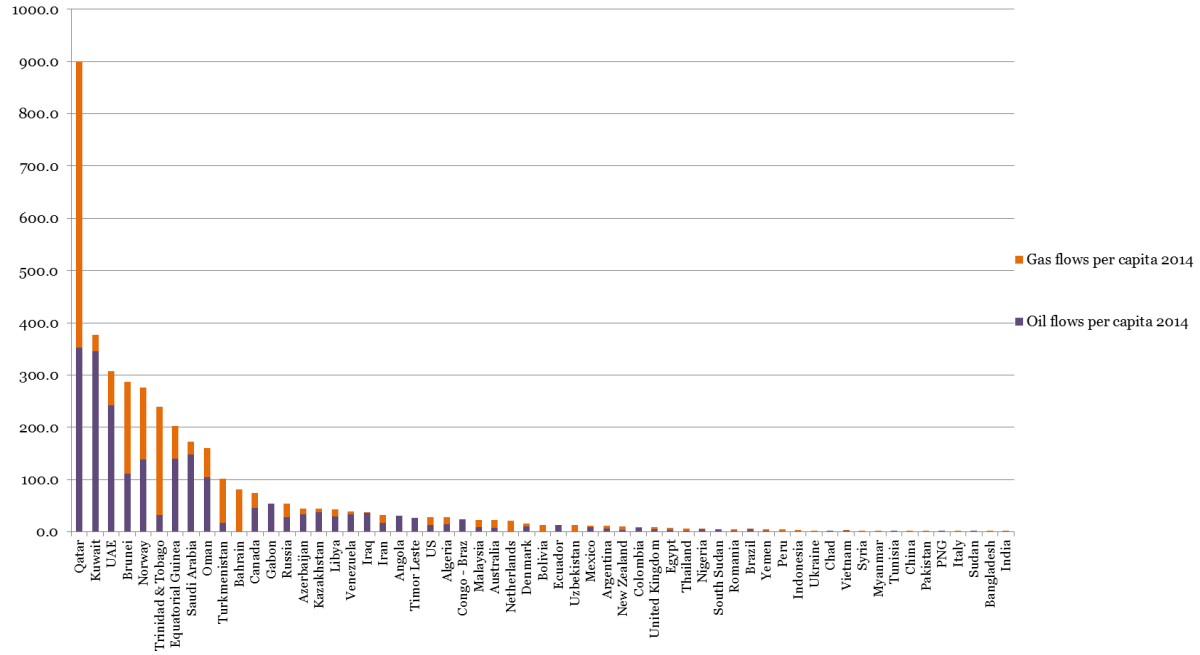
Focusing on Sub-Saharan Africa, Hilson and Maconachie (2008) divide countries into three groups, drawing attention to inherent political or legal-economic features that subvert attempts at good governance. First, there are the 'petro-economies' Chad, Gabon, Cameroon, and Equatorial Guinea, whose dictatorial policy environments, it is argued, will simply negate the good intentions of voluntary governance regimes. Second, there are the 'lootable' economies (Angola, Sierra Leone, Liberia, Madagascar, and DRC), which contain 'lucrative pockets' of extractives wealth, including diamonds and gemstones. These countries have been subject to frequent violent conflict, the groups having control over these resources being firmly entrenched in the power structure. Third, there are 'conventional mineral producers' such as Ghana, Guinea, Zambia, and Tanzania, where unfavourable mining codes and contracts are argued to have been a greater cause of economic woes than poor governance.

[6] Countries where these commodities represent 20 per cent or more of total exports or 15 per cent or more of fiscal revenues for most of the 1970–2013 period.

Norway, often highlighted as the success story par excellence of extractives-led growth, had a developed democratic system of governance and a relatively small population at the outset of its discoveries. These discoveries were also all offshore, and therefore less disruptive to local societies.

The rhetoric around extractives-led growth has tended to group even such diverse countries together, considering them all to be 'resource rich'. But this makes little sense. The fact that two countries are sitting on the same volume of minerals does not mean that both are 'rich', as their resulting wealth will depend partly on the cost of extraction and partly on how that wealth is likely to be shared and how many people will enjoy it. For example, in terms of production per capita, the UK is richer in resources than Nigeria (see Figure 1). This may matter in terms of deriving economic and social dividends from resources. Myers (2005), for example, has argued that when their production is below a certain number of barrels of oil equivalent per head per year (b/h/y), non-OECD producing countries tend to underperform on conventional development indicators in comparison with their neighbours.

Figure 1: The world's top 60 per capita oil and gas producers in 2014



Source: Myers (2015) based on BP statistical review 2014 and World Bank population data 2012.

In this diverse context, policies that contributed to success in Norway or Botswana will not necessarily work in other countries. One glaring problem is that countries and companies with longer periods of economic stability, well functioning institutions, and experience have evolved high standards of practice. By contrast, low-income countries have lower institutional capacities, fewer skilled and experienced professionals, and different developmental priorities (Marcel 2013). Parachuting the institutions and practices of the former group into the latter countries is likely to be impossible to achieve, whilst consuming a disproportionate amount of resources and efforts relative to the rest of the economy.

4.2 Political and psychological impacts can overpower attempts at good governance

Several scholars draw attention to the complacency that 'rent'-based growth may induce in government decision-makers, as well as in society more generally, and the natural psychological response to seek opportunities to gather more rent rather than pursue 'productive' enterprise. The

tendency to use extractives rents to support other industries, and domestic energy, water, and food consumption in particular, is commonly identified as a 'distortion' that disincentivizes and reduces efficiency and productivity (Stevens et al. 2015: 10).

Achieving institutional good governance in countries with a relatively low capacity to manage the extractive sector at the outset will be a long, hard slog right from the very beginning. It will require both sustained political will and a measure of societal stability. At the same time, while it is known what needs to be done for extractives-led development to have a positive outcome, the reality of the political economy that develops around an extractive industry or other, similar forms of rent-generating activity, may make it impossible to achieve that outcome.

4.3 Development is too rapid

There is a strong tendency among countries that discover resources to develop projects as quickly as possible and aim for rapid depletion of those resources. Pressure to do so comes from two sources: the host government and the operating companies. For their part, multilateral financiers and development agencies are eager to apply their expertise to the extractives-led growth agenda, which, even if this is not their intention, in terms of practical policy and economic advice tends to reinforce domestic, government, and investor pressures to 'develop fast' and, as a result, miss out on (the slower gestation) opportunities to develop linkages appropriate to economic diversification and management capacity (Stevens et al. 2015: 32–33).

5 Considerations for revising the advice to producers

As explained in the literature review, there is economic logic in the argument that resource revenues can improve a country's growth prospects, potentially raising levels of income, savings, and investment. Resource curse studies have tended to focus on negative outcomes and to pose the question of how extractive-sector development has contributed to those outcomes. But a more useful approach may be to ask why the extractive sector has in many cases failed to become the leading sector, thereby serving as the engine to improve opportunities and growth in other parts of the economy. Dissecting the answers to that question might be a better way for countries with extractives reserves to understand the requirements and risks they face in developing their resources. This leads to four interlinked considerations that arguably should guide policy:

- Diversification of the economy from the outset of decision-making over the extractives sector
- The capacity for the sector to link with and contribute to the rest of the economy
- Options for the pace of development of extractives projects
- Measures of performance that should guide the economy—and the possible models of development these might favour.

We will now examine each of these considerations in turn.

5.1 Diversification as key

For those countries with large reserves of natural resources per capita, depletion-led diversification—i.e. into energy-intensive industries with strong linkages to the sector—has proved a beneficial economic pathway for at least a few countries in past decades (Australia, Canada, GCC states, Trinidad and Tobago). Those economies remain dependent on the extractives sector and their trajectory is not sustainable indefinitely, but we can say that many low-income countries

would not mind following in their footsteps in terms of the living standards that their citizens enjoy. Even this development model, however, has been challenged by the fall in the oil price. The governments of Saudi Arabia and the UAE, for example, have now adopted economic diversification as a domestic priority, tightly connected to job provision and social stability.

For less well endowed countries (on a per capita basis), crunch points may occur much earlier, before even basic infrastructure such as power and clean water has reached the mass of their populations. As the historical problems of harnessing gas for power in Sub-Saharan Africa and parts of South Asia demonstrate, the mere existence of a fuel resource does not mean that it can easily be exploited for domestic use. A country will need to at least demonstrate resource potential—and the guarantee of returns that can be remitted to shareholders—to gain investor attention and realize the type of large-scale project that requires, for example, transportation and power infrastructure.

Mitchell and Stevens (2008) and Stevens et al. (2015) have explained the general depletion profile, whereby a country must have begun to diversify its revenues by the time production of the commodity in question reaches a plateau. Failure to do so will likely mean that its spending levels become unsustainable. Naturally, commodity price volatility will also affect the length of that transition period. If there is not sufficient growth in other areas of the economy when the commodity's export volumes go into terminal decline, the country will rapidly fall into deficits—both in its current fiscal account (for public spending) and in its current external account (foreign exchange for purchasing foreign goods).

In promoting governance fixes to enable extractives-led growth, far too little attention has been devoted to whether a country has the characteristics and capacity to make this transition.

More generally if resource-rich countries decide to develop their natural resources, they need to consider how to use the sector as a 'one-off opportunity' for development, bearing in mind the risks of a volatile market. It is doubtful that this is a realistic option for new, small-scale producers that have limited capacity for spending and implementation. A fund to manage revenues over time would be a necessary but not a sufficient condition. But the prospects of such a fund being effective in countries with low capacity to manage it are poor (Stevens et al. 2015: 21). If a slower, 'development first' route is taken, then countries must focus on optimizing economic linkages with the sector.

5.2 Understanding linkages—and their limitations

Albert Hirschman's (1977) idea of linkages from extractive projects to the rest of the economy offers some indication of why, in many cases, the extractives sector has failed to lead the rest of the economy upward.

Any extractive project generates linkages to the rest of the economy, which can be categorized as fiscal, forward, and backward. *Fiscal linkages* refers to the revenue generated for the owner of the resource; in most cases outside the US, this is the state as represented by the government. *Forward linkages* refers to the supply of the sector output to the rest of the economy, which, in the case of oil and gas projects, implies the supply of oil and natural gas products; but this definition can be expanded to include the supply of modern management techniques and managerial capacity to the rest of the economy. *Backward linkages* refers to the inputs into the project from the domestic economy in terms of employment, capital, and material inputs into the value chain.

Where new projects are being developed, it is usually hoped that these linkages will lead to increased productivity and development in other areas. However, Hirschman's analysis pointed to

the limitations of the linkages of oil, gas, and mineral projects, which explains why this often does not happen.[7] The 'enclave', high-tech nature of extractive projects makes them more likely to be isolated from the local economy in developing countries lacking the appropriate skills base.

In many cases, the majority of revenues from exporting the raw material accrue directly to the government. This means that government entities, rather than the industry, become by default the critical drivers of economic growth and development. A government's ability to spend revenues and allocate resources effectively then becomes the focus for economic performance. This ability is affected not only by the level of institutional development prior to the arrival of extractives production, but also by the strong political and psychological factors that come into play once (a) public expectations of a new flow of extractives revenue are raised and (b) a state–business elite has developed on the basis of rent capture and positions itself to defend the interests that will arise once that rent begins to flow.

5.3 The pace of development matters

In theory, the rapid-development model offers advantages in terms of early stage cash with which to initiate solutions to immediate and urgent problems in an economy—such as poverty reduction, debt financing, and energy and transport infrastructure development. At the same time, it is in harmony with the idea of a 'one-off' opportunity for development in a volatile market, especially when there are concerns that the resources may not be worth as much in the future. There are several pressures that tend to accelerate development. These include popular demands to deploy the new revenues for better standards of living; manoeuvring among elites aiming to capture the new wealth; and the appetite of foreign companies for economies of scale and rapid returns on investment.

However, for a country, accelerated development may mean depleting its reserves faster than is desirable. It also poses several problems, especially for countries that have limited institutional and regulatory capacity. These include the inability to develop backward linkages in time to benefit from potential new investments and opportunities to serve the sector; the lack of time to introduce regulation of the new sector and to increase capacity for handling and deploying new revenue flows; and vulnerability to the boom–bust cycles that are at the heart of resource curse ills (Stevens et al. 2015: 34). The result is that enhanced levels of indebtedness once resource flows wane are inevitable.

5.4 Alternative measures of performance and models of development overlooked

The extractives-led development rhetoric may not only overrate the ability of poorer countries to rise to the considerable challenges they face. Perhaps more important, it may also obscure the possible comparative benefits and savings involved in developing other sectors rather than extractives or developing the extractives sector at a much slower pace than that advocated instinctively by industry and investors. That may require a change in the way that companies and investment opportunities are judged, with less emphasis on short-term growth and more on sustainable value creation.

GDP growth is a poor indicator of the contribution of the sector to the rest of the economy. Alternatives to GDP are being pursued by several international institutions (see, for example, Stiglitz et al. 2009). Which measures countries, finance institutions, and banks eventually adopt

7 Hirschman's original framework pointed to negative impacts on non-resource sectors and implicitly pointed to potential alternative sources of development.

will affect decision-making regarding extractive resources. As the economist John Talbert (2010) puts it:

> Obsession with GDP growth has spurred policies to liquidate natural capital as quickly as possible. […] correctly valuing changes in our stocks of natural capital and the ecosystem services that they provide will help advance a science of new metrics capable of inspiring more sustainable policy choices.

Whist new producers may not have the power to address this broader systemic market problem, a better calculation of resource value and depletion and domestic environmental costs, factored into the extractives and non-extractives GDP calculation, would result in a better measure of sustainable diversification. The key point here is that revenue from extractives is not income but an exchange of below-ground resource assets for above-ground cash assets. Not only this, but the process of reshuffling has costs—environmental (variously including land use change, pollution, water demand increase) and often also social, especially where extractives activities displace people whilst others migrate to the area of resource production in search of work. For extraction to be worthwhile on a national basis, its long-term value must exceed these costs. The most logical way of achieving this situation is to invest earnings in income-generating activities or other assets of societal benefit that can replace their value to the national economy over time.

A new measure of declining dependence on the sector, i.e. a *measure of economic diversification*, would be useful here. Tracking the non-hydrocarbon fiscal and current account balances over time can indicate whether a country is moving in the wrong direction (Mitchell and Stevens 2008; Stevens et al. 2015). But reducing non-extractives or non-hydrocarbon fiscal deficits does not necessarily indicate *sustainable* diversification, as non-extractives activities often include industries that are dependent on subsidized extractives input or other government subsidies. Not only can this put an increasing burden on state finances; it can also impose environmental asset losses and inhibit the implementation of efficient energy access and the growth of low-carbon sectors, which most new and prospective producers also aim at (Lahn and Bradley 2016).

6 Conclusion

The resource-curse literature provides insights that have been partially sidelined during a period of rising and high commodity prices: a period of heightened international interest in increasing oil, gas, and mineral resource flows. The evolution in thinking about the impacts of extractives on economic and wider patterns of development reveals the folly of our predilection for a single cause or reason for particular outcomes and 'one big solution' to our problems. The shortcomings of the newer extractives-led growth agenda underscore this folly. Country histories, populations, capacities, power dynamics, and reserves bases, in all their diversity, are a critically under-explored set of factors that need to be taken into account when prescribing 'governance' for the sector. While good institutions and good governance are undoubtedly the reason certain countries have been able to benefit from their extractives endowment, this does not mean that the same policies can be applied to other countries easily or with the same effects.

This paper has argued that the governance challenges for new, low-capacity producers remain immense and that the global context for extraction calls for expectations to be revised. At the time of writing, the downturn in commodity prices is proving challenging to exporters, many of whom were benefitted financially during the previous decade of high prices. Indebtedness is likely to frame the next decade for many developing countries that have become dependent on exports. At the same time, reliance on the sale of high-carbon fuels is being challenged by the prospective

global shift to lower-carbon technologies and greater energy efficiency. Greater pressures on the environment are increasing the value of assets that can be damaged in the process of extractives development, production, and use in industry.

Turning around the resource curse question to ask why, in some cases, the extractives sector has not become the driving sector for the rest of the economy suggests that much greater focus and attention should be given to the role of the sector over time in a country's development strategy. In the light of this, there are four interlinked aspects of extractives-led growth that require greater attention. These are:

- **Capacity to diversify:** To use its extractives sector to jump-start growth while allowing enough time for sustainable diversification, a country needs a sufficiently large resource base. Understanding what kind of economic contribution can be expected from reserves over time, as well as whether there is the capacity to channel the revenues into spending and investments that promote self-sustaining growth in other sectors of the economy, will be key to deciding how sensible an option extractives-led growth will be. Such understanding is far from simple to acquire, and factors such as global market risks and trends, including those from increasing carbon constraints and technology shifts, must be taken into account.
- **Economic linkages between the new or expanded extractives sector and the rest of the economy:** To achieve these requires in each case a much deeper understanding of what services, jobs, and business opportunities can realistically be generated from the extractives operations and for how long. Energy should be part of this consideration—the policy for allocating and/or pricing fuels for domestic use is a vital dynamic in industrial development, sustainable diversification, and fiscal balance.
- **The pace of development:** As suggested above, many low-income producers lack the capacity to take advantage of rapid depletion-led growth and this will in the majority of cases result in entrenched vested interests, imprudent spending patterns, and increased economic inequality. It is time to consider carefully-paced development plans (in line with growing national capacity to benefit from the economic opportunities they provide and assuming 'worst case' market scenarios). Key to success will be the institutional arrangements for managing national decisions to hold back from developing certain reserves or to develop them at an appropriate pace against the inevitable pressures from popular, political, and investor (shareholder) interests to ramp up production as quickly as possible.
- **Alternative measures of performance:** There is little disagreement that GDP growth is a poor indicator of development, let alone sustainable development. Alternative measures of performance, including the valuation of other natural assets such as clean air, fresh water, and forests, need to be incorporated into the study of the impact of extractives on economies. On a practical level, the right indicators—including the trends in non-hydrocarbon balances—can incentivize countries to balance their portfolio of economic interests.

References

Africa Progress Panel (2013). 'Equity in Extractives: Stewarding Africa's Natural Resources for All'. Available at: http://www.africaprogresspanel.org/wp-content/uploads/2013/08/2013_APR_Equity_in_Extractives_25062013_ENG_HR.pdf (accessed 1 May 2016).

Alstine, J.V. (2014). 'Transparency in Resource Governance: The Pitfalls and Potential of "New Oil" in Sub-Saharan Africa'. *Global Environmental Politics*, 14(1): 20–39.

Auty, R. (1993). *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London: Routledge.

Auty, R. (1994). 'Industrial Policy Reform in Six Newly Industrializing Countries: The Resource Curse Thesis'. *World Development*, 22(1): 11–26.

Auty, R. (2010). 'Elites, Rent-cycling and Development: Adjustment to Land Scarcity in Mauritius, Kenya and Côte d'Ivoire'. *Development Policy Review*, 28(4): 411–33.

Bova, E., P. Medas, and T. Poghosyan (2016). 'Macroeconomic Stability in Resource-rich Countries: The Role of Fiscal Policy'. International Monetary Fund (IMF). Available at: http://www.imf.org/external/pubs/ft/wp/2016/wp1636.pdf (accessed 6 March 2016).

BP (2015). 'BP Statistical Review of World Energy 2015'. London.

Collier, P., and A. Venables (eds) (2011). *Plundered Nations?: Successes and Failures in Natural Resource Extraction*. London: Palgrave Macmillan.

Darby, S. (2010). 'Natural Resource Governance: New Frontiers in Transparency and Accountability. Available at: http://www.transparency-initiative.org/wp-content/uploads/2011/05/natural_resources_final1.pdf (accessed 13 April 2016).

David-Barrett, E., and K. Okamura (2016). 'Norm Diffusion and Reputation: The Rise of the Extractive Industries Transparency Initiative'. *Governance*, 29(2): 227–46.

Dixon, A.D., and A.H.B. Monk (2011). 'What Role for Sovereign Wealth Funds in Africa's Development?' Centre for Global Development. Available at: http://www.cgdev.org/doc/Initiatives/Oil2Cash/Final_Formatted_Monk_and_Dixon_SWF_10.11.pdf (Accessed 13 April 2016).

Dobbs, R., J. Oppenheim, A. Kendall, F. Thompson, M. Bratt, and F. van der Marel (2013). 'Reverse the Curse: Maximizing the Potential of Resource-driven Economies'. McKinsey Global Institute. Available at: http://www.mckinsey.com/industries/metals-and-mining/our-insights/reverse-the-curse-maximizing-the-potential-of-resource-driven-economies (accessed 20 January 2017).

The Extractives Industries Review (2003). 'Striking a Better Balance: The World Bank Group and Extractives Industries', Volume I. Available at: http://www.ifc.org/wps/wcm/connect/294e55004ba934bca5adbd54825436ab/01.0+Volume+I+-+The+World+Bank+and+Extractive+Industries,+EI+Review+Report,+ENG.pdf?MOD=AJPERES (accessed 17 April 2016).

Hilson, G., and R. Maconachie (2008). '"Good Governance" and the Extractives Industries in Sub-Saharan Africa'. *Mineral Processing and Extractive Metallurgy Review*, 30(1): 52–100.

Hirschman, A.O. (1977). 'A Generalized Linkage Approach to Development, with Special Reference to Staples'. *Economic Development and Cultural Change*, 25: 67–98.

Ibn Khaldun (1967 [1377]). *The Muqaddimah. Translated from Arabic by Franz Rosenthal*. Princeton: Princeton University Press.

IFC (International Finance Corporation) (2003). 'The Chad–Cameroon Pipeline'. Available at: http://www.ifc.org/wps/wcm/connect/region__ext_content/regions/sub-saharan+africa/investments/chadcameroon (accessed 6 May 2016).

IMF (2007). 'The Role of Fiscal Institutions in Managing the Oil Revenue Boom'. Available at: https://www.imf.org/external/np/pp/2007/eng/030507.pdf (accessed 13 May 2016).

Karl, T.L. (1997). *The Paradox of Plenty: Oil Booms and Petro-States*. Berkeley, CA: University of California Press.

Keblusek, M.E. (2010). 'Is EITI Really Helping Improve Global Good Governance? Examining the Resource Curse, Corruption, and Nigeria's EITI Implementation Experience'. Available at: nidprodev.org/EITI%20-%20Nigeria%20Analysis.pdf (accessed 8 April 2016).

Lahn, G., and S. Bradley (2016). 'Left Stranded? Extractives-led Growth in a Carbon-constrained World'. EER Research Paper. London: Chatham House.

Marcel, V. (ed.) (2013). 'Guidelines for Good Governance in Emerging Oil and Gas Producers'. Chatham House. Available at: https://www.chathamhouse.org/publications/papers/view/194059 (accessed 6 February 2016).

Mejía Acosta, A. (2013). 'The Impact and Effectiveness of Accountability and Transparency Initiatives: The Governance of Natural Resources'. *Development Policy Review*, 31(1): 89–105.

Myers, K. (2005). 'Petroleum, Poverty and Security'. Africa Programme, Chatham House. Available at: https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Africa/bppetroleum.pdf (accessed 15 May 2016).

Prebisch, R. (1964). 'Toward a New Trade Policy for Development'. In: *Proceedings of the United Conference on Trade and Development, New York*, Vols I–VIII. New York: UN.

Rosenstein-Rodan, P. (1943). 'Problems of Industrialisation of Eastern and South-Eastern Europe'. *Economic Journal*, 53: 202–11.

Shaxson, N. (2007). *Poisoned Wells: The Dirty Politics of African Oil*. Basingstoke: Palgrave Macmillan.

Singer, H.W. (1950). 'The Distribution of Trade Between Investing and Borrowing Countries'. *American Economic Review*, 40(2): 473–85.

Sovacool, B.K., and N. Andrews (2015). 'Does Transparency Matter? Evaluating the Governance Impacts of the Extractive Industries Transparency Initiative (EITI) in Azerbaijan and Liberia'. *Resources Policy*, 45: 183–92.

Sovacool, B.K., G. Walter, T. Van de Graaf, and N. Andrews (2016). 'Energy Governance, Transnational Rules, and the Resource Curse: Exploring the Effectiveness of the Extractive Industries Transparency Initiative (EITI)'. World Development. Available at: doi:10.1016/j.worlddev.2016.01.021 (accessed 2 April 2016).

Stevens, P. (2015). 'The Resource Curse Revisited – Appendix A Literature Review'. Chatham House, London. Available at: 20152015https://www.chathamhouse.org/sites/files/chathamhouse/field/field_document/20150804ResourceCurseRevisitedStevensLahnKooroshyAppendix.pdf (accessed 8 May 2016).

Stevens, P., and J. Mitchell (2008). 'Resource Depletion, Dependence & Development: Can Theory Help?' EER Report. London: Chatham House.

Stevens, P., G. Lahn, and J. Korooshy (2015). 'The Resource Curse Revisited'. EER Report. London: Chatham House.

Stiglitz, J., A. Sen, A., and J.P. Fittousi (2009). 'Report by the Commission on the Measurement of Economic Performance and Social Progress'. National Institute of Statistics and Economic Studies, France (INSEE). Available at: http://www.insee.fr/fr/publications-et-services/default.asp?page=dossiers_web/stiglitz/documents-commission.htm (accessed 6 April 2016).

Talbert, J. (2010). 'Measuring What Matters: GDP, Ecosystems and the Environment'. World Resources Institute blog, 14 April. Available at: http://www.wri.org/blog/2010/04/measuring-what-matters-gdp-ecosystems-and-environment (accessed 17 April 2016).

World Bank (2008). 'World Bank Statement on Chad–Cameroon Pipeline'. Available at: http://web.worldbank.org/archive/website01210/WEB/0__CO-20.HTM (accessed 6 May 2016).

World Bank (2015). 'World Bank Development Indicators 2015'. Available at: http://data.worldbank.org/data-catalog/world-development-indicators.