# Are Natural Resources More of a Curse than a Blessing?

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It seems almost counterintuitive to consider natural resource wealth as a 'curse' for economic development. In fact, the belief that possession of natural resources is advantageous to economic development is an assumption embedded within dependency theories, which often prescribe the nationalisation of natural resources as a necessary measure for development, and within some modernisation theories, which often suggest that earnings from resources can help cover capital shortfalls. Rostow (1960) even included the exploitation of natural resources as a condition of his economic 'take-off'.

However, this belief in the benefits of natural resources was challenged by the rapid growth of the resource-poor East-Asian Tigers alongside the economic woes of the resource-rich Latin American nations. Natural resource wealth became a key area of study for development theorists, leading to the evolution of the 'resource curse' concept. I will first explain what is meant by the phrase, and its basic premises, before then looking at key economic and political hypotheses behind the cause of the 'curse', including 'Dutch Disease' and the 'Rentier-State' concept. Using empirical evidence, I will show that statist political explanations are the most effective in explaining why resource abundance becomes a curse or a blessing.

**The Resource Curse**

Sachs and Warner (1995), studying global growth rates between 1971-89, were among the first to note the clear "negative, statistically significant" (p.15) correlation between resource abundance and economic growth. They highlighted how resource-poor East-Asian 'Newly Industrialised Countries' (NICs) had surged in economic performance ahead of resource-rich countries such as Mexico and Nigeria. Gylfason (2001) noted that of 65 countries classified as "natural resource-rich", just four managed to maintain a per capita GNP growth rate higher than 4% between 1970-98, and how the OPEC nations as a whole suffered an average 1.3% GNP per capita decrease between 1965-98, compared with an average 2.2% increase among low and middle income countries (p.848). There is now a wealth of information highlighting a complex relationship between resource abundance and poor economic performance.

However, this relationship is far from absolute. Whilst oil rich countries such as Nigeria and diamond rich Congo fit this 'paradox of plenty', there are multiple examples of countries developing economically because of, not in spite of, their resource wealth. The World Bank (1994) found that five of the top eight countries according to resource wealth, were also amongst the top 15 according to income. Since the discovery of diamonds in Botswana, the country has "has been one of the fastest growing economies in the world and moved into the ranks of upper-middle income countries" (World Bank, 2013).

In answering whether an abundance of natural resources are more of a curse than a blessing, we must first understand the proposed explanations behind why so many resource rich countries appear to suffer slow or negative economic growth. I will use empirical examples to examine both economic and political hypotheses that attempt to explain this relationship.

**Economic Explanations – Dutch Disease**

'Dutch Disease' was a term coined by The Economist (1977, p.82) to explain the decline in Dutch manufacturing after the discovery of a large natural gas field in 1959. Dutch disease was suggested by Sachs and Warner (1995) to be the key explanation behind the 'resource curse' (p.22). Corden and Neary (1982) explain Dutch Disease effectively by explaining how an economy is split in to three sectors; non-traded goods (services); resource-based traded goods and manufactured (or agricultural) traded goods. If a country's resource-based traded goods sector booms, it produces a large distortion upon the macroeconomy of the country, and results in two key effects.

The first is the "Resource Movement Effect". This is where capital and labour moves from other sectors, primarily manufacturing, to support the booming resource sector. This loss of resources in the manufactured goods sector is dubbed "direct de-industrialisation" (p.7). The second effect is the "Spending Effect", which causes "indirect de-industrialisation" (p.9), where the additional revenue income from the booming resource sector causes increased demand for non-traded goods (services) and so labour is diverted away from the manufacturing sector. These effects contribute to an increase in the real exchange rate, as revenue flows in from the resource sector and increases demand in the non-traded sector, causing prices to rise. Prices for manufactured traded goods remain the same as they are set internationally, and so this results in a weak, uncompetitive manufacturing sector, as exports become more expensive and imports cheaper, and often leaves a country heavily reliant on its resource sector.

A good example of this comes from the experience of Nigeria, who became entirely reliant on their oil exports. 'Dutch Disease' killed investment in the non-resource trade sector as both the 'resource movement effect' and the 'spending effect' diverted resources away from Nigeria's agricultural sector, in favour of the high-yielding resource sector. Being reliant on one resource such as oil is dangerous for states, as price shocks can leave state planning in disarray. Nigeria borrowed deeply in the 1970s to support public spending and investment plans, trusting in the success of their resource sector for support. However, with the 1980s 'oil glut', oil prices collapsed sending Nigeria's fiscal budgets into deficit. The resource sector could no longer support government spending, and with a weak agricultural sector, Nigeria became heavily indebted and almost entirely dependent on imported food (Otaha, 2012, p.82-83).

'Dutch Disease' is not inevitable, and is contrasted by the case of Norway. Like the Netherlands, Norway discovered oil and gas in the 1960s. However, rather than bringing all the revenue from these exports into the domestic economy and spending rapidly, 80% was deposited into a fund that was cautiously invested in stocks and bonds internationally. As of 2012, the fund was worth more than $600bn (Oil In Uganda, 2012). By carrying out this process, known as 'sterilisation', the Norwegian government avoided a dramatic increase in the real exchange rate, and allowed their non-resource sectors to remain competitive and worthwhile, whilst creating a huge fund to fall back on should they need to. Nigeria may have been under more political pressure to utilise oil revenues rapidly, and so had a more constricted policy space than Norway, but in any event, the natural resources Norway found were worked in to being a blessing.

The 'Dutch Disease' explanation does have some potential flaws within it. In explaining how labour moves between the 'booming' and 'lagging' sector causing de-industrialisation, it makes the assumption of full employment, a condition rarely found in developing nations, making the theory hard to apply in these cases. Corden (1984) also points out how hydrocarbon and mineral industries generally employ few people, and so the 'resource movement effect' can often be minimal (p.362). Cavalcanti, Mohaddes and Raissi (2011) have also argued against abundance of natural resources being the key driver behind the 'resource curse', and argue that more important is the volatility of commodity prices.

**Economic Explanations – Commodity Prices**

Prebisch (1950) and Singer (1950) inadvertently offered an explanation for the 'resource curse', by providing evidence suggesting that natural resource prices follow a downward trajectory relative to the prices of manufactured products. Therefore to specialise in their export would result in poor economic performance relative to those that exported manufactured goods. This decline in 'terms of trade' was caused by the 'income elasticity of demand' for manufactured goods being higher than that of primary commodities. "That is, for every one percent increase in income, the demand for raw materials increases by less than one percent" (Frankel, 2012, p.4). Prebisch hence

advocated protectionist policy measures to ensure that a competitive manufacturing sector was able to develop, rather than specialising in the comparative advantage of natural resources as free trade theories would advocate (p.4). This was the basis for many of the 'Import Substitution Industrialisation' (ISI) policies adopted in the developing world during the 1950s, 60s and 70s, which also hoped to prevent the repatriation of resource revenues abroad, the benefits of which remain contested.

The thesis has generally lost support as increasing evidence against a consistent downward trend in commodity prices is presented. Recent studies point towards the idea of cyclical price changes – Cuddington and Jerrett (2008) found three "super cycles" in metal prices over the 150 years from 1850-2000 (p.545), and importantly, such cycles vary between commodities. Additionally, a decline in terms of trade is also not necessarily a bad thing. If this occurs due to a devaluation in the exchange rate, then this can allow manufacturing sectors to increase competitiveness. So whilst there is risk involved in natural resource exportation due to declining terms of trade, countries can benefit from this, and it seems unlikely that a 'curse' exists that means their relative value will forever fall.

However, prices for natural resources are inherently volatile. The reason for this is that both demand and supply 'elasticities' in the short-term are low. For example, the amount of oil the world needs does not rapidly fluctuate but steadily increases, whilst equally, it takes time to adjust oil output. Therefore, when there is a shock to oil supply, the price rapidly increases to meet the same demand. Relying on a volatile natural resource price is perhaps what brings about the 'resource curse', rather than an abundance of resources (Cavalcanti, Mohaddes, Raissi, 2011) as it makes government revenue unreliable, and therefore state planning very difficult. However, "since the mid-1960s, studies have consistently found that export instability produces unusually high levels of private investment" meaning that "export instability paradoxically produced higher economic growth" (Ross, 1999, p.304). Arezki and Gylfason (2011) have also shown that price volatility may not hinder economic growth with evidence that democracies and autocracies respond differently, with the latter having less success in mitigating the effects of volatility (p.3). It is also important to recognise the difference in the degree of volatility of natural resources, with oil and natural gas being by far the most volatile.

We know the risks of a real exchange rate increase caused by 'dutch disease', and are also aware of the dangers associated with reliance on volatile commodity prices. We know that reinvestment and sovereign wealth funds can offset these problems, yet countries like Nigeria have consistently failed to take corrective action and have adopted policies which have allowed their resources to become a curse. This suggests that there is an inherent political aspect behind the 'curse', as different policies clearly determine the effects that resources have.

**Political Explanations**

There are three main branches of political explanation for the resource curse: cognitive, societal and statist explanations. Cognitive explanations for the resource curse propose that resource wealth induces a form of myopia amongst policy makers. This usually comes in one of two forms: "myopic sloth" or "myopic exuberance" (Ross, 1999, p.309). Wallich (1960) argued that the windfalls from sugar exports in developing nations had led to lax economic planning and poor diversification, whilst Manzano and Rigobon (2001) argue that developing nations excessively borrowed during times of high commodity value, particularly during the 1970s, using their resources as collateral. The problems of poor economic growth were caused by the "contractionary measures" that had to be taken to balance the books when volatile prices fell during the 1980s.

'Myopic sloth' and 'myopic exuberance' offer an appealingly simple way to explain the resource curse, putting it down to straightforward poor policy decisions. However, the approach has a number of problems. First of all, it denies educated policymakers the opportunity to be acting rationally, something most approaches see as fundamental. We should also expect to see similar myopia amongst the private sector in resource based economies, however, Townsend (1995) has provided evidence that shows private actors have higher than average saving rates in countries where export volatility is high, and so can be said to act more rationally than policymakers, even when they have less information (p.99). It seems more likely that policymakers are somehow constrained in their decision making.

Societal explanations suggest that resource booms helped to increase the political influence of non-state actors (NSAs), who could be this constraining factor as they may favour growth-impeding policies. Auty (1994) showed how Taiwan, South Korea and Brazil all operated ISI policies in the 1950s, and suggested that the vast gap in economic development that occurred just decades later was down to Brazil's failure to move away from ISI policies once they became counterproductive. It is suggested that this can be explained by the vast resource wealth in Latin America, and so the large vested interest by private actors in the maintenance of ISI policies. Contrast this with the minimal resource wealth in the NICs and it is clear to see how much easier NIC governments would find it to build a consensus for export promotion. It is also interesting to consider the constraints placed upon policymakers by international society, previously by the IMF and World Bank SAPs, and more recently the 'soft power' influence after borrowing from China.

Societal explanations can seem persuasive when presented by authors such as Auty. However, they nearly always rely on the same examples (such as Taiwan, South Korea and Brazil), and can be hard to generalise to more current areas of study, such as the presence of the resource curse in Sub-Saharan Africa. Also, the increased political influence of NSAs makes sense if they have first claim on resource rents, but in many developing countries this is not the case. In cases where natural resources are nationalised, surely this should protect governments by providing a revenue cushion against privately financed political opposition.

Statist approaches to the 'resource curse' appear to be the most helpful, because of their hybrid explanations involving cognitive, societal and institutional proposals. The most common explanation, the 'rentier-state' concept, proposes that because government revenue in resource abundant countries is largely gathered through resource rents, less priority is placed on the collection of taxes from the domestic population. The government focus on resource rents results in a failure to develop an effective set of institutions and bureaucracy with which to tax citizens. It is therefore less accountable and connected to its social base than in more traditional 'Weberian states' where the collection of domestic taxes is essential, leaving the state dependent on resources and exposed to the economic risks of this.

Corruption may be a key factor behind why policymakers fail to take corrective action, as they are influenced by actors who prefer growth-impeding policies. "Resource dependence is indeed strongly associated with a worse corruption perceptions index…which in turn is associated with lower growth" (Van Der Ploeg, 2010, p.19). Yet because of low taxation and high welfare, governments of rentier-states will rarely suffer a backlash over corruption from civil society. For this same reason, civil society is less likely to press for economic reform and improved development policies, allowing policymakers the ability to act rationally in attempting to maintain the status quo as opposed to implementing costly and controversial development policy (Shambayati, 1994, p.308). Chaudry (1989) proposed that rentier-states failed to develop institutions that can gather the information needed to create development strategies, and Mehlum, Moene and Torvik (2006) have shown a clear correlation between 'good' institutions and effective growth. Again, the model can be difficult to apply universally, and assumes rentier-states are not revenue maximisers, but does make it easy to see how poor development policy can persist, bringing about the economic woes associated with the resource abundance.

**Conclusion**

It seems that the 'resource curse' is more of a trend than an economic inevitability, with diverse countries such as Norway and Botswana adopting good policy that allowed them to use their natural resources to positive effect. However, there is no escaping the clear correlation between resource abundance and poor economic performance. The fact that we know the economic problems associated with resource exportation, yet also know how to solve them, shows us that the 'curse' is a political one, brought about by poor policy decisions. Purely cognitive and societal explanations alone fail to explain effectively why these decisions are made, yet statist explanations are able to adopt a wealth of endogenous factors that can help to explain why corrective action is not taken.

A lack of accountability to civil society amongst rentier-states allows for the inclusion of factors such as corruption and myopia in policy making. Citizens are disengaged from the economics of their country because of the low taxes and high welfare they receive. Governments of rentier-states therefore have a higher incentive in maintaining the

status quo, rather than introducing controversial development policy, which their poor institutions may not be able to provide effective information for. Therefore, growth stagnates, and as happened in Nigeria, when commodity prices fall, debt crises ensue due to the poor economic policy that has been operating. Many 'rentier-states' likely developed in this way due to their colonial past. As ex-colonies, many developing nations, upon independence, already had an effective productive base for export. Priority was then never placed upon developing the institutions and bureaucracy required for taxing citizens as it wasn't immediately necessary.

It is incredibly difficult to identify a precise factor behind the association between resource exportation and poor economic performance, but it seems likely that it is deeply rooted in the form of state where the resources are found. We would not expect the discovery of vast natural resources to affect the UK in the same way as it would Zimbabwe. The competencies of policymakers, the influence of civil society and the effectiveness of institutions are just some of the infinite endogenous factors that will determine whether resources become a curse or a blessing. We are likely to be provided with increasing case studies as the rise of the BRICs leaves developing nations without labour as a comparative advantage, and an increased demand for their resources.

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