Cursed by Bounty

The Natural Resource Curse and Policy Recommendations to Correct the Curse

Econ 165: International Economics

Nick Anderson[1]

25 April 2007

[1] Nick Anderson, a junior and Robertson Scholar at Duke and UNC, is studying for a degree in Public Policy. He can be reached at nba@duke.edu.

ABSTRACT

Are abundant natural resources a blessing or a curse? Countries that are rich in natural resources are also, paradoxically, today's economic under-performers. This paper examines the resource curse, a theory that explains why resource-exporting countries have unexpectedly stagnant economies. After reviewing literature by economists on this issue, this paper offers two policy prescriptions to mitigate the curse. In contrast to suggestions by some researchers that resource-rich countries should minimize international trade so as to avoid falling victim to the curse, this paper concludes that, with smart policies, resource-rich countries can trade their resource-based products and achieve lasting economic growth.

Is resource wealth a blessing or a curse? Countries that are rich in natural resources are also, paradoxically, today's economic under-performers. Intuition implies that resource abundance, oil and mineral abundance in particular, would be a driver of economic growth. Resource deposits are natural assets that can seemingly be transformed into schools, ports, institutions, and other forms of capital that fuel economic development. But reality proves the contrary: in measures of economic growth, countries that are rich in tradable resources are surpassed by resource-poor countries almost without exception.

Why are countries with bountiful natural resources economic laggards? This paper examines the resource curse, a theory that explains why resource-exporting countries have unexpectedly stagnant economies. In practice, the curse applies to countries whose export sector is heavily dominated by natural resources – countries such as Nigeria, Angola, and Iraq. This paper begins by reviewing the economic literature with three objectives: first, to survey the intellectual origins of the resource curse theory; second, to establish that the resource curse is a real, rather than imagined, phenomenon; and third, to explore the reasons why natural resources are a curse. After this literature review, we will pose this question: If resource abundance is a curse, should developing countries continue to export resource products? This paper will conclude by answering the question in the affirmative – by implementing innovative and sound policies, resource-rich countries can use their natural endowments to their advantage, thereby beating the resource curse and achieving strong and lasting economic growth.

We start by surveying the origins of the resource curse concept. The idea that bounty is a curse is hardly new. In 1576, Jean Bodin, a French philosopher, observed,

> men of a fat and fertile soil, are most commonly effeminate and cowards; whereas contrariwise a barren country make men temperate by necessity, and by consequence careful, vigilant, and industrious.[2]

[2] As cited in Sachs and Warner (1995)

Though Bodin may have been the first social critic to draw the link between bounty and sluggishness, Auty (1993) was the first economist to give the affliction a label. In a seminal book, Auty presented the "resource curse thesis," which described how resource-rich countries are unable to use their natural wealth to fuel economic expansion. He showed that, counter-intuitively, resource-poor countries have higher economic growth than better-endowed countries.

Auty's resource curse concept has its intellectual roots in the "Dutch disease," a term invented by *The Economist* (1977) to describe how a seemingly positive resource discovery can have adverse domestic consequences. This concept was inspired by the decline in the Dutch manufacturing sector after vast natural gas reserves were discovered off the coast of the Netherlands in the 1960s. In the Dutch disease model, when a country has a large endowment of tradable natural resources, capital and labor will be concentrated in resource extraction and pulled away from other tradable, non-resource sectors like manufacturing (Sachs and Warner, 1995). As a consequence, when the country with this arrangement experiences a resource boom in the form of an improvement in the terms of trade or a new resource discovery (as was the case with the Netherlands' gas discovery), capital and labor will shift away from the manufacturing sector, i.e., the sector will contract,[3] which is what earned this scenario the label "disease."

It was in this context that Auty introduced the resource curse thesis. Now we proceed to consider whether the resource curse is a real phenomenon. Or could it be a statistical illusion? This question grows out of the concern that the resource curse is a "mirage from natural

[3] Of course, this realignment in production away from manufacturing is perfectly efficient in a neoliberal sense: factors of production shift to their most efficient use as the result of changing terms of trade. But complicating such a view is the presence of externalities in Dutch disease situations that are not accounted for in neoliberal thinking. In almost every scenario in history, natural resource extraction involved negative externalities to society such as environmental degradation, pollution, and accidental spills (Smith, 1968; Sachs and Warner, 1995). Operating in conjunction with this is the idea that manufacturing, by contrast, has positive externalities. These positive externalities are often described as the "learning-by-doing" effect and they generate "pro-poor" economic growth [Ross 2001, Sala-i-Martin and Subramanian 2003]). Thus, the growth of negative externalities with an expansion of the resource sector, in combination with the loss of positive externalities as the manufacturing sector declines, makes the realignment in production described above socially inefficient. In short, the Dutch disease is a negative phenomenon largely due to the presence of externalities.

resources being the only surviving sector in slow-growth countries" (Sachs and Warner). However, subsequent studies confirm the validity of the resource curse thesis. Sachs and Warner (1995) demonstrates a negative relationship between resource abundance and economic development in a cross-country regression analysis that controls for alternative explanations of a slow-growth, resource-rich scenario. The Sachs and Warner study provides strong evidence that the resource curse is real and is consistent with more recent empirical work by Sala-i-Martin (1997) and Doppelhofer, Miller, and Sala-i-Martin (2000), which show that resource endowment has a robust negative effect on economic growth. Ross (2001) finds that with higher dependence on natural resources come greater poverty rates and worse government. In short, there is widespread consensus in the literature that a resource curse exists.

We now explore the question of why resource abundance has bad consequences for economies – in other words: Why is resource abundance a curse in regards to economic growth? As we will see, there is significantly less consensus among economists about the answer to this new question. According to Auty, whose initial thesis is built on a study of mineral-exporting economies, resources are a curse because the production function for mining – as well as for oil extraction and most other examples of resource production – is heavily capital-intensive. Mineral production "employs a very small fraction of the national workforce with large inputs of capital from foreign sources" (Auty 1993, p. 3). With a small labor pool, the returns to domestic labor are highly concentrated and have minimal impact in boosting sustained national growth. Most of the earnings on mineral production flow directly to the owners of capital, who are predominately foreigners.[4] Auty concludes that countries whose export basket consists of at least 40 percent mineral products retain little of gains from trade, causing economic growth

[4] An important caveat is that labor employed in resource extraction enjoys high wages, an arrangement the literature calls a "labor aristocracy." Though the resource sector employs few workers in absolute terms, the workers it does employ receive better pay than workers of a similar skill level employed in non-resource industries (Auty, 1993).

(which he measured as per capita GDP) to stagnate or even contract. The curse is observed when 40 percent or more of a country's exports are resource products. Countries like Sweden, Australia, and the United States, though resource-rich, do not have an export sector that is so heavily dominated by resources.

Sachs and Warner (2001) supplement Auty's explanation by showing that resource abundant countries tend to have high-price economies due to appreciation in the exchange rate, which causes them to miss out on export-led growth. The high price of exports makes them less competitive in the world. Whereas lower prices can often be a source of competitive advantage for developing countries, the high prices in resource-rich countries eliminate the potential for growth led by competitively-priced exports.

Sala-i-Martin and Subramanian (2003) offer an excellent delineation of the resource curse's causes, dividing the explanation into three distinct ways in which resource abundance impedes growth. The first way is the "voracity effect," where resources generate rents on capital that provoke voracious rent-seeking behavior,[5] principally in the form of corruption, which causes institutional inefficiency. Inefficient institutions inhibit growth. The second explanation of resource curse scenarios is that economies that heavily depend on only one production sector are inherently unstable and, as a consequence, suffer greatly during unfavorable price changes. The instability of single-good economies (especially when the good is a natural resource, a traditionally highly price-vulnerable type of good) discourages sustained growth. The third way resource abundance hinders growth is the Dutch disease, which we defined above as a damaging contraction in the manufacturing sector that accompanies improving terms of trade or resource

[5] Economists define rent-seeking behavior as seeking abnormal profits through the political sector. The classic examples are bribery and lobbying (Palley, 2003).

discoveries.[6] The Dutch disease is unusually potent in developing countries because the manufacturing contraction makes it very hard to generate growth that benefits the poor (Ross, 2001). Any net growth that does occur thanks to expansion of the resource sector will likely benefit a small portion of labor and, principally, the owners of capital.

Clearly, the explanations for why resource abundance is a curse are numerous and overlapping. The first, offered by Auty (1993), is that the earnings from resource extraction are largely withheld from the domestic economy and sent overseas to the owners of capital. Sachs and Warner propose that resource-rich economies are largely high-price economies, eliminating the possibility of export-led growth, a traditional growth path for developing countries. Lastly, Sala-i-Martin and Subramanian (2003) offer three ways resource abundance slows growth: institutional inefficiency, the vulnerability of an economy dominated by a single industry, and the Dutch disease. What can be done to reverse the curse? This paper offers two recommendations: (1) transparency of payments from industry to government and (2) citizen revenue distribution funds – with these policies, countries can transform the curse into a blessing.

While the problems induced by the resource curse vary across countries, a universal trait is bad governance. This is both an effect and a perpetuating cause of the resource curse and a retardant to growth. Oil and mineral country governments are generally corrupt (Glyfalson, Herbertsson, and Zoega, 1999), authoritarian (Palley, 2004), and ineffective (Ross, 2001). During oil or mineral booms, resource-rich governments use their newfound resource wealth as collateral for foreign loans, and often they actually accumulate large debts (Auty, 1993) rather than save for the future. As we noted earlier, these countries are characterized by "the voracity effect," or corruption as the result of voracious rent-seeking behavior. Cameroon, the Republic

[6] Dutch disease is especially damaging when the booming resource is a mineral, because then both the manufacturing and agricultural sectors can contract and become uncompetitive (Auty, 1993).

of the Congo, and Ecuador are all tragic examples of oil-rich countries characterized by pervasive corruption (Palley, 2003). One of the other deleterious effects of the resource curse is internal conflict over control of the resource, a symptom observed in far too many countries – Nigeria, Iraq, Angola, and Botswana, to name a few (Palley, 2003; Hodler, 2004). The conflict is not necessarily overt warfare, and may instead by characterized by ethnic fractionalization or murderous governments. Finally, as a result of slow or negative economic growth and the tendency for earnings from extraction to be retained by a concentrated labor pool or shipped overseas, resource-rich countries demonstrate some of the highest poverty rates in the world (Ross, 2001). As we can see, the worst effects of the resource curse include bad governments, internal strife, and crushing poverty. These are problems that are caused by the lack of growth from the resource curse. The solution to the resource curse starts with addressing these problems.

The first policy recommendation is transparency of payments from industry to governments. The goal of this policy is improve governance by eliminating corruption. To do this, this paper recommends transparency through a disclosure program called Publish What You Pay. PWYP requires extraction companies to disclose information about payments to governments. When extraction companies "fail to disclose payments to governments … it is easier for government officials to steal and more difficult for citizens to hold officials accountable" (Palley, 2003, p. 57). The payments subject to this revenue transparency initiative would include taxes, royalty and license fees, revenue sharing, and forward sales of future revenues (Palley, 2003). The revenue transparency brought by PWYP would reduce corruption, improve information, and stimulate growth. The direct beneficiaries of this policy would be citizens and investors, who will gain from the new investment and growth stimulated by PWYP.

For this policy to be successful, it has to be mandated by an external agent because rarely would companies or governments institute PWYP on their own accord. The means of enacting PWYP is through the securities laws in G8 countries. G8 countries should demand that, as a condition of stock exchange listing, public extraction companies abide by PWYP. Extraction companies are sometimes small operators, but in most cases companies involved in oil or mineral extraction are large multinational corporations listed on prominent G8 stock exchanges (Palley 2003, PWYP Coalition). In this way, PWYP would be mandatory for any public company involved in resource extraction anywhere in the world.[7]

The PWYP initiative is becoming popular among international activists, and the Publish What You Pay Coalition, backed by George Soros, has achieved some initial successes in Azerbaijan and Nigeria, which have both voluntarily committed to PWYP and established a state agency to oversee transparency. The president of Nigeria is a strong supporter. These developments occurred as recently as late 2006, so the success of PWYP in these countries is not fully known. Resource-exporting Canada has strongly embraced transparency and experiences no resource curse.

The shortcoming of enforcing PWYP by requirements for stock exchange listing is that it is not mandatory for non-traded or state-owned companies. To overcome this, influential international actors should pressure non-traded and state-owned extraction companies to also follow PWYP. The Extractive Industries Transparency Initiative, which was announced by British Prime Minister Tony Blair in 2002, leads this effort. But at the end of the day, any revenue transparency by non-traded or state-owned companies is purely voluntary.

[7] Implementing PWYP will involve overcoming significant political hurdles. As Palley (2003) explains, "Regrettably, U.S. oil companies have resisted PWYP, claiming that corruption is a governmental problem." To date, PWYP has not been a high priority for U.S. political leaders, which might explain the U.S. oil companies stonewalling. Revenue transparency has to be a priority of G-8 countries, the actors with the power to immediately make PWYP part of the rules of the game in every major financial network in the world.

Transparency through PWYP requirements is an important first step in reversing the resource curse. It would reduce corruption and improve governance, two fundamental requirements to overcome the resource curse. But ultimately, PWYP deals only with the effects of corruption, not the causes. A government can still be bad even if it is transparent. To deal with this dilemma, the second recommendation is the implementation of citizen revenue distribution funds, which largely bypass government, reducing the potential for corruption. RD funds distribute government revenue from extraction straight to the citizens of a country.

The model for this is the Alaska Permanent Fund, which in 1976 began investing state government oil revenues in a trust fund that puts its money in a portfolio of international securities. The fund returns dividends that are paid annually to Alaskans. Building on the work of Palley (2003, 2004), this paper recommends that extractive countries establish a similar fund. But rather than allowing the fund to build up over time as in Alaska, this policy would have the revenues paid to citizens immediately. This is because there is greater risk of theft by governments in resource curse countries than in Alaska; immediate distribution lessens corruption risk.

There are several key advantages of a citizen RD fund that make it ideal for developing countries seeking to overcome the resource curse. It can be implemented immediately. It requires minimal government oversight, minimizing the potential for corruption. Managing an RD fund requires no decision-making by managers – revenue would be paid out at a flat, fixed rate (perhaps 25% per year), and would be divided evenly for each citizen. Its simplicity allows for easy oversight by international observers or domestic citizen interest groups. Most importantly, dividends go straight to ordinary citizens. This advantage has several relevant and interwoven implications: (1) the dividend is a regular source of income, (2) it can be used as collateral for investments and small businesses, which encourages the growth of a credit market,

and (3) citizens would have a stake in the political process and would seek to have their dividend maximized by ensuring that state-owned resource companies operate efficiently (Palley, 2003). In short, a RD fund would stimulate entrepreneurship and risk-taking on the street level.

Palley (2003) points out that a key objection to RD funds is that "it would starve developing country governments of money needed for infrastructure building" (p. 67). The counterargument is that citizens make better investment decisions than governments – especially corrupt governments in developing countries. The "economic dynamism" (Palley, 2004) generated by injecting the dividends into the economy would multiply into new wealth, and tax revenue from the new economic activity could finance government infrastructure projects.

Revenue distribution funds are widely applicable and can be molded to fit almost any resource curse situation. For instance, Clemons (2003) makes the case that a fund would be ideal for Iraq. Though the political situation has deteriorated since Clemons made that assertion, his recommendation is still valid. In fact, a fund would perhaps be more beneficial for Iraq today than in 2003. The political implications would be profound. With an alarming exodus of citizens from Iraq (estimated at 3,000 per day), the promise of sharing in Iraq's future oil wealth would encourage Iraq's best and brightest – entrepreneurs, doctors, and academics – to stay. Ordinary citizens would engage in the political process, demanding a halt to counterproductive violence that disables oil production. Clemons puts it best: "Most revolutions that produce stable democracies expand the number of stakeholders in the nation's economy."

International development agencies and economists agree that there are two broad requirements for overcoming the resource curse: reducing corruption and improving information transparency. There are a number of steps that international agencies, developed countries, or resource curse countries can take to achieve these goals. The two policies proposed here, PWYP and citizen revenue distribution funds, are ideal policy options. PWYP and RD funds are the

ideal combination because both improve information and reduce corruption. With these policies, the onus of implementation is on companies and resource-curse governments, but rich countries and development agencies wield the stick of enforcement. However, overcoming the resource curse is a new area in international development, and there is little history from which to judge what works and what does not.

The recommendations herein are based on the view that resource-rich developing countries can overcome the resource curse with the right policies. This view is not universally-held. Ross (2001) offers a striking alternative. He argues that reversing the curse is very unlikely in practice, and instead these countries should significantly cut back or even eliminate resource exports. Ross suggests, "[T]he best course of action for poor states would be to avoid export-oriented extractive industries altogether" (p. 17). Nevertheless, this paper maintains that with the right policies, resource exportation can be made to do more good than harm. And fundamentally, expecting a country with vast resource deposits to let them sit idle or keep them domestic as the world market bids up the price is highly unrealistic.

With the incredible expansion in global transportation options in the past 50 years, resource-rich countries can specialize in resource extraction, ship the resource good all over the world, and still make a profit. But when resource specialization dominates the export sector (at 40 percent or more of exports), the resource curse sets in. There are exceptions. About 40 percent of the exports from Chile and Norway, for example, are resource products. Though these countries have exhibited symptoms of the resource curse in their history – e.g., Norway has shown signs of the Dutch disease since the 1970s – good governance and information transparency prevented these countries from sliding into the curse. Using Chile and Norway as models, developing countries with bountiful resources should implement PWYP and citizen RD funds in order to overcome the resource curse and enjoy better sustained rates of growth.

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