



DEVELOPING ALTERNATIVES

volume 11 issue 1 spring 2007

From Curse to Cures

*Practical Perspectives on
Remedying the Resource Curse*

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Bryanna Millis
Designer: Joanne Kent

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DAI Washington, 7600 Wisconsin Avenue, Suite 200, Bethesda, MD 20814 USA
Tel: +1 301 771 7600 www.dai.com

DAI Europe Ltd, Strand Bridge House, 138/142 Strand, London WC2R 1HH, United Kingdom
Tel: +44 (0) 207 420 8600 www.dai-europe.com

STRIPPED BARE BY THE CURSE OF PLENTY¹

by Ulrich F.W. Ernst

The common curse of mankind—folly and ignorance.

William Shakespeare

Dying of thirst, swimming in the reservoir

One of the great paradoxes of development is the resource curse. Economies that are rich in resources—mostly in terms of mineral wealth, particularly hydrocarbons²—have grown at a slower pace than their resource-poor counterparts, such as the Asian Tigers (Hong Kong, South Korea, Singapore, and Taiwan). There are of course exceptions, such as Norway or ethnically homogeneous and diamond-rich Botswana, but the statistical evidence of a direct link between resource dependence and slow growth is persuasive.

It is a paradox, because exploiting resource wealth generates income (and foreign exchange) that should lead to higher levels of domestic savings and investment that would boost economic growth. Yet most countries with sizable resource endowments—especially where access to the resource can be controlled or an advanced technology is required for its exploitation—are in effect dying of thirst in the middle of the lake.

The explanation for this paradox hinges, like all economics, on incentives. First, even in an open democracy, a massive influx of foreign exchange will put pressures on the real exchange rate, causing the domestic currency to appreciate. A higher-valued domestic currency undermines the competitiveness of the non-oil economy in

domestic and export markets. Diminished competitiveness in turn lowers returns on investment in activities other than natural resource exploitation—except for nontradable sectors such as construction and services, for which the new wealth fuels demand. The ensuing structural imbalances drive up inflation. In addition, “sticky” nominal exchange rates, since policies often do not react immediately to changing situations, create their own inflationary pressures as the real exchange rate seeks an equilibrium. Without adequate macroeconomic management, an economy can no longer live up to its potential. While many countries have experienced this phenomenon over the centuries, the decline of the manufacturing sector in the Netherlands in the 1960s after the discovery of natural gas gave it its name—“Dutch disease” (coined by *The Economist* in 1977).

The economic rents flowing from the exploitation of the natural resource generate perverse incentives for the emergence of predatory states bent on appropriating these rents for a small elite. Natural resource wealth, as well as contrived rents (see box below) and sometimes high levels

Contrived rents

“Natural resources are just one of three important sources of rent in the developing countries. The others are geopolitical rent (aid) and contrived rent (created by the government changing relative prices to raise additional revenue)” (Auty 2005). An example of a contrived rent is the establishment of a government monopoly on, say, matches. The government can set the price of matches such that it extracts a rent from the consumer, who would otherwise pay less if competition was allowed.

¹ Paraphrasing a Winston Churchill quote.

² For a list of resource-dependent countries that includes some useful classifications, see Joseph Siegle’s article in this issue.

of foreign aid, often creates stronger incentives “to take than to make” (Olson 2000, 1). These incentives favor autocratic regimes, often deteriorating into kleptocracies. Mineral wealth (or any other source of rents) in effect constitutes a common-pool resource whose exploitation depends on access and control, shaped in turn by power. The emergence of predatory regimes further undermines competitiveness beyond the effects of exchange rate appreciation.

These two effects of a natural resource bonanza—macroeconomic imbalances and incentives for predatory regimes—combine to define a stylized model of a socioeconomic development trajectory sharply different from the competitive industrialization model.³ Richard Auty suggests a “staple trap model” (see box below) to describe countries that offer high rents as a result of (primarily) natural resource wealth, which contrasts with the emergence of a “supportive developmental state.” In the latter development trajectory, resource-poor countries pursue an economic strategy favoring labor-intensive manufacturing, which accelerates urbanization, speeds a demographic transition to smaller families, raises wages, and encourages

Staple trap model

Richard Auty has coined this phrase to characterize a set of policies and development patterns that rely on the exploitation of a single resource. High resource rents give rise to a series of economic forces that culminate in the collapse of economic growth, both directly and indirectly by the pursuit of these rents. These rents diminish the formation of social capital, reduce the growth of produced capital, and slow the pace of human capital formation. The staple trap model illuminates the intricate interaction of critical elements of development (or the lack thereof) and an economy’s internal feedback sequences. Breaking out of the staple trap is critical to shifting to an effective strategy of development based on complete industrialization.

savings. Under this development trajectory, the government relies on taxation as a source of its income. Reliance on taxation in turn gives citizens greater motivation and leverage to influence the way in which tax revenues are spent, contributing to the creation of an institutional framework that supports transparency and accountability.

In resource-abundant countries, the development trajectory is marked by the onset (or full bloom) of Dutch disease, undermining the competitiveness of economic activities outside of the natural resource sector. Since natural resource exploitation tends to be capital-intensive, the same level of investment will generate fewer jobs. The lure of significant rents inspires predatory habits by the government or the elite, especially if access to resource wealth can be controlled. Kleptocracy in turn discourages institutional development toward participation and transparency.

In resource-rich states, even open, democratic governments may no longer have to rely on taxation for revenue, although the successful ones (like Norway) do. Without that connection to the taxpayers, it is easy for a country’s rulers to tailor expenditures to respond to the interests of the elites, rather than meeting the development needs of the economy as a whole. Rents are typically transferred to a rapidly expanding nontradable sector, such as construction and services, where booming demand and lack of competition lead to gross inefficiency. The distinction between the macroeconomic and competitiveness effects of Dutch disease and incentives for banditry is important. Both affect growth in different ways, and both deserve a closer look.

Catching Dutch disease

Large inflows of foreign exchange into a country—whether through colonial “asset stripping”

³ <http://www.opi.org.uk/documents/ESRC06Workshop5Note.pdf>; the summary in that note is based to a large extent on a presentation by Richard Auty, the author of the lead article in this journal.

(gold and silver imports into 16th-century Spain), natural resource exploitation, or high levels of foreign aid—create pressures on the real exchange rate. The foreign exchange flowing in has to be converted into domestic currency, driving up the domestic currency's price and forcing it to appreciate in real terms. Unless the country's authorities are pursuing a policy of extremely flexible nominal exchange rate regimes—which of course may have all sorts of other costs—the most likely effect is that the domestic currency will adjust to accommodate changes in the real exchange rate. In other words, the appreciation in the real exchange rate will trigger domestic inflation, which discourages savings and may distort market signals. Structural demand imbalances in favor of nontradable goods will also contribute to general inflation. Both domestic inflation and the appreciation of the real exchange rate damage prospects for economic growth.

In their basic model for explaining Dutch disease, Max Corden and Peter Neary focus on the *deindustrialization* effects of a natural resource boom (1982, 829–831). Direct deindustrialization—caused by the shift of resources from the lag-

Penn effects

The foreign exchange inflows typical of resource-rich countries are likely not only to widen the income gap between the rich and the poor, but also to condemn the poor to face higher prices. The “Penn effect” refers to the direct correlation between per capita incomes and price levels, as measured by any price indices. It was first identified in the 1960s on the basis of data compiled by the International Comparison of Prices Program in the Penn World Table (ICP/PWT). Recognition of this effect underlies all efforts to adjust nominal gross domestic product (per capita) by purchasing power parity (PPP).

In the context of the resource curse, the Penn effect implies that prices rise with rising per capita incomes, irrespective of income distribution. If an elite captures the rents from exploiting mineral wealth, the rest of the population is likely to be worse off than before because of rising prices without commensurate adjustments in their incomes.

ging sector to the booming sector, the “resource movement effect”—is likely to be limited. After all, natural resource exploitation typically employs relatively few people. Indirect deindustrialization is a result of the “spending effect”—the increase in the demand for labor in the nontradable sector attributable to the extra revenue brought in by the boom. Their model finally explains how demand-driven inflation in the nontradable sector combines with price stability for tradables, where prices are determined in world markets, to trigger the appreciation in the real exchange rate.

Two basic remedies for Dutch disease exist: slowing the appreciation of the real exchange rate, and boosting the competitiveness of the non-oil sector, which includes not only manufacturing but also agriculture. The central remedy is to control the influx of foreign exchange through “sterilization,” which comprises various measures to avoid bringing in all of the proceeds at once. The country's monetary authorities save part or all of it abroad by investing in selected financial instruments, then gradually “release” the inflows into the domestic economy. The government can further offer incentives to channel these gradual inflows into savings and productive investments with a long-term horizon. Investments in social and physical infrastructure (and appropriate provisions for maintenance) are the most appropriate targets for these investments.

The potentially negative effects of massive inflows of foreign exchange are independent of the nature of the political system. Any country can catch Dutch disease, whether democratic or totalitarian. But lack of democratic control and concentration of market power exacerbate the effects. Hobbesian anarchy or kleptocracies diminish competitiveness further, especially with government-imposed or -tolerated monopolies that create contrived rents. The evidence is strong that the very existence of abundant rents creates perverse incentives for the elites to appropriate them. Dutch disease often goes hand in hand with authoritarian tendencies.

Facing obstacles to collective action and Olson effects

In many respects, the issues arising around the exploitation of commonly held high-rent natural resources can be viewed as another instance of the problems surrounding common-pool resource (CPR) management. Without stretching the analogy too far, creating institutions and power structures to appropriate rents from natural resource exploitation is broadly similar to maintaining systems that allow members of a community to appropriate rents from, say, pastures or fisheries. While the CPR literature deals primarily with renewable resources, it yields positive and negative lessons on institution building that are pertinent to the question of managing mineral wealth.⁴

If a resource is owned by a group or community, no one has property rights or control of access. As a result, there are no incentives for sustainable management, and overexploitation—the “tragedy of the commons”—results. Examples of overexploitation are everywhere. Pastures on land without property rights are overgrazed. Overfishing of the world’s oceans and lakes has brought fisheries to the edge of collapse. Yet there are also cases in which communities have developed institutions to overcome this dynamic, allowing them to use these resources more effectively.

Ostrom et al. (1994) contend that community management is more likely to be successful where the community in question is fairly homogeneous. For example, members of the community should have similar discount rates, levels of social trust, and information about the resource. This perspective views heterogeneous societies, with their diverse and conflicting views, as hampering the development of institutions for effective and sustainable resource management. Other

researchers, however, have argued that these conditions may lead to the emergence of political entrepreneurs who prompt collective action. Mancur Olson argued (1965) that, in a heterogeneous society, “privileged” individuals may be willing to bear the costs of providing a collective good in return for a greater share of the returns—the original Olson effect. If they have enough at stake, and can afford the interventions, they are likely to maintain the resource on their own even though there are others who benefit without paying (“free riders”). For example, a wealthy landowner may pay for the maintenance of an irrigation system, accepting that small farmers will benefit without paying for that maintenance. However, the larger the group, the less likely it becomes that action will be taken to produce the collective good—at least in the absence of coercion or subsidy.

There has been considerable empirical work trying to assess the impact of homogeneity vs. heterogeneity on collective action to preserve, sustain, or manage a natural resource for the common welfare. The evidence regarding the existence of Olson effects presents a mixed picture. Based on data from the Common-Pool Resource Database for 40 fisheries and 54 irrigation systems, heterogeneity is not associated with positive outcomes, although results vary with the definition of “success” (Ruttan 2006). Other research suggests that the effect of heterogeneity, and its impact on social capital and trust, depends on the specific costs and benefits of collective action.

While these Olson effects can be beneficial to communities, power, of course, also works the other way. In a posthumously published book, Olson (2000) explores the flip side of managing CPR in a heterogeneous society once power and

⁴ For a somewhat curmudgeonly assessment of the literature on common-pool resources, see Bromley (2005).

coercion are taken into account.⁵ Olson traces the “progression” from the roving bandits (who take as much as possible from others) to the “stationary bandits” (who restrict their take from society and provide a modicum of rule enforcement) to authoritarian regimes (who “graduate” from the stationary bandits by claiming some legitimacy, either divine or popular). Stationary bandits have a “monopoly of theft [which] changes incentives dramatically” (2000, 8). If they are secure in their power, their actions may often serve the social interest, even if that was not their original intention. However, authoritarian rulers insecure in their power, or with a sufficiently short time horizon, are likely to fall back into the behavior pattern of the roving bandit—taking everything they can get their hands on.

Clearly, these shifts in incentives may provide some guidance for developing cures for the curse. If we are to articulate new strategies, we need a better insight into the role of institutions for appropriating and retaining rents from natural resource exploitation—or, alternatively, for managing the resource in a developmentally productive manner. Controlling Dutch disease and channeling the foreign exchange inflows into investments with a long-term time horizon call for an understanding of incentives, solid management skills, effective participation, and open development debate and accountability.

Tackling folly and ignorance

This issue of *Developing Alternatives* provides a glimpse into the nature of the resource curse and sketches some options for exorcizing it. There is often great folly in the way these riches are squandered. The institutions that appropriate the rents from natural resource exploitation can exist to a large extent because of a complete lack of transparency—people do not know where

the money goes. Folly and ignorance therefore go hand in hand. Building institutions to encourage more development-friendly uses of natural resource wealth therefore requires a focus on ways to create a framework that increases transparency and accountability.

For too long, the resource curse debate has been caught in a sterile loop. The impact of the curse can be attributed to the lack of institutions—yet we have been at a loss to build or revamp institutions that, by fostering greater transparency and accountability, can break the vicious cycle of rent appropriation and its use to consolidate power for the few. The central theme for the articles in this issue is therefore looking forward rather than back. The case studies here also offer useful lessons for the future.

Richard Auty, a leading proponent of moving beyond the sterile debate, contributes a keynote article. Noting that macrolevel regression studies of the impact of the resource curse are encountering diminishing returns, he looks at the issue through the lens of what he has termed “rent cycling” to understand the mechanisms of institutional development. There is much in that article that will shape the resource curse debate in years to come. The author also suggests options for breaking the vicious cycle and using natural resource wealth more effectively for broad development.

The keynote article is followed by four case studies. A piece by David Tardif-Douglin examines the rocky history of the World Bank’s attempts to reach (and maintain) an agreement with the Government of Chad to deal with the expected inflow of foreign exchange for Chadian oil in a developmentally positive manner, in return for funding the Chad-Cameroon pipeline. This discussion is followed by three shorter case studies

⁵ His “intermediate” book, *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities* (1982), already traces the emergence of institutions in democratic societies that “eventually rob them of their dynamism” (Olson 2000, xxiii).

for Angola, Azerbaijan, and Norway that review different ways of dealing with a resource bonanza. Norway, of course, exemplifies how solidly democratic institutions can provide transparency and encourage the public to participate in the process of making decisions about foreign exchange inflows and tracking how they are used.

The final two pieces take an optimistic look at alternatives for dealing with the resource curse. The first, by Mark Gallagher and Steve Rozner, examines the tools that have been developed and applied in tackling the problem from a fiscal policy point of view. The concluding article, by Joseph Siegle, treats the resource curse as a governance problem, and suggests alternatives for strengthening governance to improve transparency, accountability, and participation.

Good reading.

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RENT CYCLING THEORY, THE RESOURCE CURSE, AND DEVELOPMENT POLICY

by R.M. Auty

The need for a fresh approach to explain growth collapses

Interest in the resource curse thesis is rooted in efforts to explain the protracted growth collapses triggered in many developing countries by the commodity price shocks of 1974–1985. Case studies of the oil-exporting countries (Gelb 1988, Karl 1997) drew attention to the paradox whereby higher revenue from sales of a natural resource commodity—not only oil but also hard minerals, timber, and some agricultural products—had led to *declines* in welfare. Analyzing the long-term growth trajectories of 21 countries, Lal (1993) found that whereas 8 out of 10 “land-abundant” (resource-rich) countries pursued policies that led to growth collapses (the exceptions being Malaysia and Thailand), only 3 out of 8 intermediate countries did so, while all 3 “labor-abundant” (resource-deficient) countries maintained rapid growth. He concluded that labor-abundant countries have an easier development trajectory because their comparative advantage lies in manufactured exports, which favors outward-oriented policies and reliance on competitive markets to allocate capital and labor. Lal explained that land-abundant countries tend to close their economies in an attempt to create jobs by forcing industrialization. This approach, however, distorts the economy and—if unreformed—leads to a growth collapse.

Economists running regressions of multicountry data sets then took up the trail. The resource curse thesis received a boost when Sachs and Warner (1995) used regression analysis to compare country economic performance for 1970–

1989. They subsequently (1999, 23) identified an inverted U-shaped relationship between natural resource dependence (measured on the horizontal axis) and trade policy, a finding consistent with Lal’s 1993 study. They observed that as dependence on exports of a primary product increased, trade policy initially closed. However, it then reopened at the highest levels of natural resource dependence. The apex of this inverted U occurred where exports of primary products reached 33 percent of gross domestic product (GDP), with most developing countries lying below this level.¹ Sachs and Warner concluded that most resource-rich governments closed their trade policies to counter the employment-diminishing effects of Dutch disease (the syndrome wherein strengthening the real exchange rate during commodity booms erodes the competitiveness of other tradables, such as manufacturing and non-booming agriculture). This protectionism prompted an increase in resource dependence, leading to economic distortion and a growth collapse (see table, next page).

Subsequent quantitative analysis sought to address the dynamics of the resource curse. Some found the quality of institutions to be a more important determinant of economic growth. For example, Acemoglu et al. (2001, 2002) attributed the quality of institutions to the nature of the colonial experience. If colonial settlers worked the overseas territory themselves, the institutional structure tended to promote wealth creation, whereas if climatic conditions discouraged permanent colonial settlement, the institutions facilitated the extraction of wealth to the detriment of local people. This conclusion was swiftly

¹ The downswing of the inverted U (where trade policy opens again) is dominated by capital-surplus oil exporters of the Middle East, whose large per capita oil reserves reduce the incentive for artificial stimulation or maintenance of economic diversification.

DEVELOPING COUNTRIES' GDP GROWTH 1985–1997 AND SHARE OF RENTS IN GDP 1994, BY NATURAL RESOURCE ENDOWMENT

Resource endowment	Per capita GDP growth, 1985–1997 (%)	Total rent (% GDP)	Pasture and cropland rent (% GDP)	Mineral rent (% GDP)
Resource-Poor^{1,2}				
Large	4.7	10.56	7.34	3.22
Small	2.4	9.86	5.41	4.45
Resource-Rich				
Large	1.9	12.65	5.83	6.86
Small, non-mineral	0.9	15.42	12.89	2.53
Small, hard mineral	–0.4	17.51	9.62	7.89
Small, oil exporter	–0.7	21.22	2.18	19.04
All Countries		15.03	8.78	6.25

Source: Auty and Gelb (2001), 131. Note: comprehensive data on rents available for 1994 only.

¹ Resource-poor = 1970 cropland/head < 0.3 hectares

² Large = 1970 GDP > \$7 billion

challenged. Glaeser et al. (2004), for instance, questioned the usefulness of the institutional indices selected by Acemoglu et al.; they found that human capital accumulation and policy choice determine institutional quality, which improves as a consequence of rising incomes and is not the cause of that rise. Most recently, Lederman and Maloney (2007) have reported that natural resources can have a positive effect on economic growth.

Regression analysis appears to be experiencing diminishing returns. One reason is that the indices used in multicountry regression analysis are often crude proxies for the factors at work on the ground. The findings also vary with the data selected. For example, resource dependence may be measured on the basis of rent, exports, employment, or land endowment. The time period chosen for analysis also affects findings: the frequency of growth collapses intensified during 1974–1985, and some countries subsequently enacted economic reform measures where others did not. Finally, the composition of the sample of countries may skew results, because differences in the amount of data available can somewhat arbitrarily filter countries out.

The resulting impasse may be overcome, however, by the comparative analysis of country

case studies that measures the rent flows and directly analyzes their political and economic impacts, rather than simply treating commodity revenues as a black box and measuring the assumed outcomes. The next section of the paper shows how country comparisons can be used to build a theory of rent cycling. The final section demonstrates some implications for economic policy.

The theory of rent cycling

The emerging theory of rent cycling focuses on the often neglected interaction between politics and the economy in developing countries. It grows out of observations about the three principal forms of rent: natural resource rents, geopolitical (foreign aid) rents, and rents contrived by government intervention to change relative prices (Tollison 1982), such as establishment of a government monopoly over sales of a popular commodity. Typically, these three rents comprise a relatively large fraction of GDP in low-income countries—15–30 percent or even higher—a fact which can and does distort the political economy. An important characteristic of rent is that it can be detached from the activity that generates it so that it provokes political contests for its capture (Krueger et al. 1992). Consequently, rent streams strongly affect both

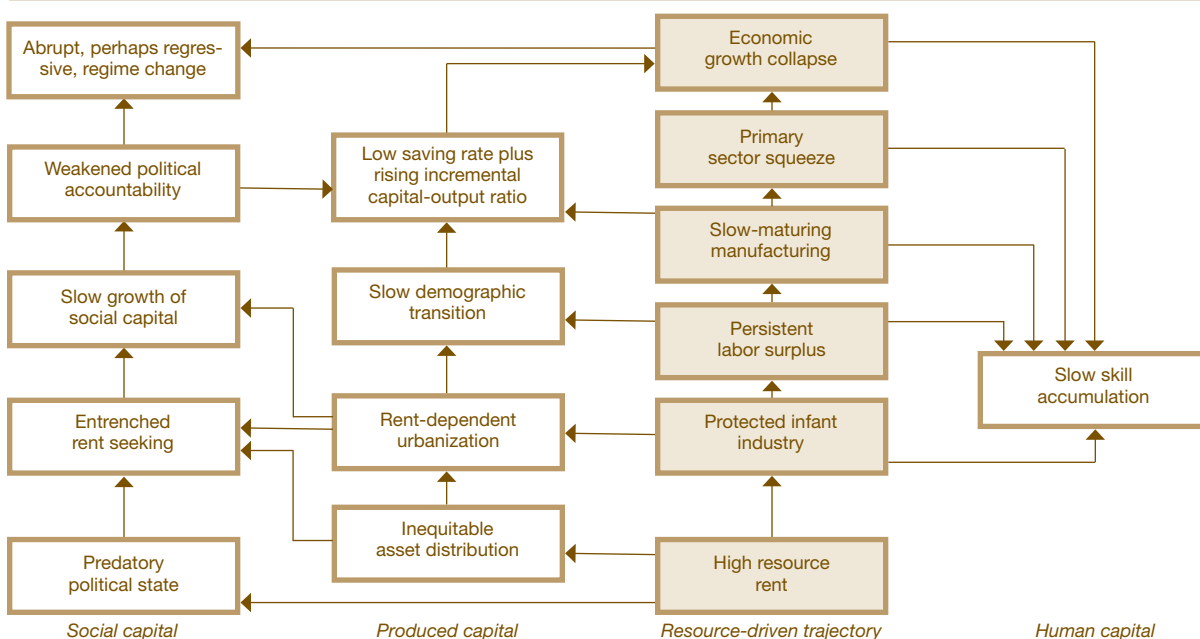
the incentives of the political state and the structure of the economy (Auty 2007).

While rent cycling theory is rooted in analyses of natural resource-driven development, it recognizes that growth collapses can also be caused by high levels of aid and contrived rent. For example, geopolitical rent flows sharply increased in Kenya following its 1980 growth collapse and helped to prolong the collapse by feeding corruption, intensifying Dutch disease effects, and reducing the urgency of reform. Currently, the bankrupt regime in North Korea evades reform by threatening its neighbors in order to extract geopolitical rent aimed at buying off more extreme behavior. In the two Koreas, a case study of contrived rent—generated mainly by closing trade policy, adopting multiple exchange rates, implementing price controls, and controlling interest rates and credit—reveals a remarkable contrast. Resource-poor North and South Korea both deployed contrived rent policies after their civil war, but with very different outcomes: per capita incomes in South Korea quickly outstripped those of North Korea. South Korea relied heavily on markets

to allocate capital and rapidly built an efficient economy, whereas North Korea relied on central planning and struggled just to maintain incomes, let alone to raise them. Rent cycling theory not only identifies a broader set of rent flows than the resource curse theory, it also recognizes that political contests for rent are sensitive to initial conditions and that institutional quality and social factionalism affect the efficiency of rent deployment.

The central premise of rent cycling theory is that political agents manipulate rent in ways that affect how far an economy will diverge from its optimum development trajectory. It is hypothesized that the higher the rent/GDP ratio and the more concentrated the rent's deployment upon a handful of political and economic agents, the more likely it is that i) the political state is predatory; ii) the rent is cycled inefficiently through patronage channels; and iii) the economy will lose its underlying comparative advantage. High rent raises the stakes for its capture: capturing such rent offers the elite more immediate rewards than using it to promote long-term wealth creation, the benefits of which

STAPLE TRAP MODEL



may accrue to successor political and economic actors. Moreover, the empirical literature suggests that diffusely distributed rent—as in peasant farming, for example—tends to be deployed more effectively than rent concentrated upon political and economic agents, as when rent is generated by taxing capital-intensive mines and plantations (Baldwin 1956; Beavan et al. 1987). The outcomes of rent flows are probabilistic rather than deterministic, however, and comparative case studies can identify beneficial anomalies, along with the conditions under which they may be replicated in other countries.

A staple trap model explains how high and concentrated rent flows can repress broader social welfare (Auty 2007). High rent intensifies Olson effects (Olson 2000)—the capture and manipulation of economic policy by vested interests—and deflects government effort into capturing and distributing rent rather than working to create broad-based wealth. In addition, a lengthy dependence on primary product exports tends to delay competitive industrialization and slow the absorption of surplus rural labor (previous page, shaded column). Wary of urban unrest, governments deploy rent to create employment that markets would not support. They typically protect infant industry and overextend the bureaucracy, enlarging a rent-seeking sector that retards the competitive diversification of the economy. The burgeoning demands of the rent recipients eventually exceed the capacity of the primary sector to meet them, a consequence of either ongoing structural change or a negative price shock. Governments must then reform the economy by promoting markets. This move, however, shrinks rent-seeking opportunities and therefore engenders strong resistance from rent recipients.

Consequently, governments in high-rent economies often find it politically more expedient to augment the rent extracted from the primary sector, forcing the latter to skimp on maintenance and wages and further undermining its viability. In this way, the high-rent trajectory creates a staple trap wherein an expanding rent-dependent

sector corrodes the sustainability of the primary sector upon which it increasingly depends. This depresses the rate of investment, lowers the economy-wide efficiency of capital, and reverses competitive restructuring so that the resilience of the economy to external shocks declines. A growth collapse is likely to be accompanied by abrupt political change that may be regressive. Unfortunately, the growth collapse is also protracted, because the staple trap runs down all forms of capital and because rent recipients oppose economic reform.

The corollary is that the lower the rent/GDP ratio and the more it is dispersed across many economic and political agents, the higher the likelihood that i) the political state is developmental; ii) rent flows through markets; and iii) the economy adheres to its comparative advantage. These are the characteristics of the competitive industrialization trajectory, which limits Olson effects and triggers a virtuous economic cycle. A low-rent government increases its revenue by taxing output, so it is motivated to provide public goods and maintain efficiency incentives in order to sustain wealth creation. The resulting adherence to the economy's underlying comparative advantage, which lies in an early and rapid expansion of labor-intensive exports, speedily absorbs surplus labor. The resulting shortages boost real wages and give labor incentives to acquire skills while motivating the business sector to diversify into skill- and capital-intensive activity that strengthens the resilience of the economy. Moreover, early industrialization brings early urbanization. This accelerates passage through the demographic cycle, shrinking family sizes so that the dependent/worker ratio falls and saving and investment rise as a share of GDP, sustaining rapid growth that can double per capita GDP every seven to 10 years.

A virtuous social circle also arises in low-rent economies. The early elimination of surplus labor puts a floor under the wages of the poor, while the widespread acquisition of new skills by the population limits the skill premium to yield a relatively

equitable income distribution, easing social tensions. The low-rent development trajectory also nurtures incremental democratization, because it strengthens three bulwarks against antisocial governance. First, the diversification of taxation from exports to profits, incomes, and expenditure increases pressure for political accountability. Second, rapid, market-driven urbanization strengthens civic voice. Finally, the proliferation of private firms leads to demands to protect profits by strengthening property rights and the rule of law.

Some implications for policy and further research

Rent cycling theory has two important policy implications. First, it is necessary to build a political component into economic policies for development and reform. Second, rent cycling theory applies to forms of rent other than natural resources, notably foreign aid and contrived rent; it is vital for policy makers to take this into account.

Rent cycling theory identifies the political dynamic that governs policy implementation. Once established, rent seeking exhibits strong inertia, because rent recipients often become so politically powerful that they can either block economic reform or turn it to their advantage by capturing it and distorting it. This is illustrated by the recent history of Angola, where the international financial institutions (IFIs) attempted to apply the stabilization and structural adjustment policies they had advocated throughout the 1980s and 1990s to revive collapsed economies. The results were deeply disappointing. The Angolan elite—barely 1 percent of the population—captured the newly privatized public sector trade and production monopolies during the 1990s and used them to pass on price rises, making this powerful group indifferent to calls for macroeconomic stabilization. The Angolan government persistently stonewalled IFI efforts to increase fiscal transparency and economic restructuring; it took advantage of burgeoning Chinese mineral demand to evade

conditional IFI loans by bartering oil for capital investment from China. It is true that the multiplier effects from the elite's cycling of the oil rent benefit the middle class, believed to comprise 8 percent of the population (mainly in Luanda). However, the elite's rent cycling hobbles the postwar recovery of the agricultural sector upon which the vast majority of Angolans must depend. This is because the overrapid domestic absorption of the oil rent has helped to trigger a threefold rise in the country's real exchange rate since 1992, the last time Angolan agriculture was globally competitive.

The demise of Venezuela's apparently resilient consensual democracy offers a second example of damaging rent cycling, with parallels in Ecuador and Bolivia. The Venezuelan economy was already severely distorted on the eve of the 1970s' two oil booms. It exhibited both Olson effects and Dutch disease, because private capital and unionized labor had exploited ties to the dominant political parties to extract rent from an import substitution policy that was already associated with decelerating GDP growth and falling productivity. The oil booms were used to weaken constitutional checks on the executive (Karl 1997) and accelerate absorption of the windfall revenues, which heightened Dutch disease effects and added two more powerful rent-seeking groups—state enterprises and consumers—to unionized labor and private capital. When Venezuela's growth collapsed during the 1979–1981 oil boom and oil prices subsequently fell, successive governments were unable to build a political coalition to ration the rent, stabilize the economy, and encourage private investment. The growth collapse therefore persisted: capital stock and productivity both ran down, while incomes fell by over one-fifth and became sharply skewed as private capital flowed overseas. This failure discredited Venezuela's consensual democracy. The polarized electorate ushered in a populist regime in 1998, which cycles rent from the current oil boom with minimal economic competence.

As the cases of Venezuela and Angola illustrate, top-down reform frequently meets with limited success due to resistance by powerful vested interests. An alternative strategy exists in the shape of dual-track reform, which builds a dynamic market economy in early reform zones, or ERZs (track 1) while postponing confrontation with rent seekers in the distorted economy (track 2). ERZs have three key characteristics: world-class infrastructure, competitive incentives (such as low tax rates), and enabling governance. They create a space inside the distorted economy within which efficient investment can occur: the rapid expansion of the investment also builds a pro-reform political constituency that can eventually challenge the rent seekers. Malaysia adopted such a strategy in 1971, as did Indonesia under Suharto (albeit by accident), while the United Arab Emirates and Saudi Arabia have recently embraced variants. Moreover, the successful economic diversification of low-rent China and Mauritius is rooted in the promotion of special enterprise zones within those countries' distorted economies.

Interestingly, ERZs were effectively created by the legal conditions that mining multinational corporations (MNCs) negotiated with governments in the former Soviet Union in the 1990s in order to reduce the risk to their massive investments. The *de facto* ERZs proved highly successful at stimulating new enterprises locally. A case can therefore be made for the social policy adopted by those MNCs, which was to eschew investment intended to fill gaps in public services in favor of promoting both linked and unlinked businesses within the mining regions. This approach not only shields new entrants from predatory rent seeking but also helps sustain growth after mining ceases (Auty 2006).

Turning to the second main policy implication of rent cycling, we observe that foreign aid and contrived rent can generate symptoms like those of the resource curse, ranging from Olson effects, economic distortion, and declining investment

efficiency to protracted growth collapses. Regression analyses should take account of this possibility, because it is yet another factor that blurs the hypothesized relationship between natural resources and growth collapses. If not carefully monitored, increases in foreign aid intended to help countries recover from growth collapses may prove counterproductive by feeding rent seeking and Dutch disease effects, as appears to have occurred in Uganda and Kenya, for example. In contrast, Mozambique has largely avoided such problems because donors targeted expenditures that could be effectively monitored (mainly investments in infrastructure).

Even low-rent South Korea suffered ill effects from rent deployment when, after the government had substantially shrunk its contrived rent through the mid-1960s, a reform regime re-expanded it to more than 10 percent of GDP through the 1970s. The government did so by controlling banks and interest rates in order to channel low-interest capital to industrial conglomerates as part of a Big Push into heavy industry. The resulting over-rapid rise in investment hit the economy like a commodity boom, causing investment efficiency to decline and growth to collapse from 1979 to 1981. The Olson effects persisted because the industrial conglomerates spawned by the Big Push captured much of the banking system when it was privatized in the mid-1980s, using it to fund their own expansion at the expense of investment efficiency in ways that later exacerbated the 1997 financial crisis.

Such examples suggest how two steps—conceptualizing the resource curse as a variant of the *rent* curse, and measuring how rent flows affect political and economic incentives—can produce a theory of rent cycling and help to revitalize research in this field. A fuller understanding of this phenomenon can in turn shape and guide the policies and strategies of government, donors, private firms, and others with an interest in promoting economic development.

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IN RELENTLESS PURSUIT OF RENT: MANAGING OIL REVENUES IN CHAD

by David Tardif-Douglin

A flawed model agreement

In 2001, the World Bank and Chad entered into an oil pipeline agreement that spelled out how to manage Chad's future oil revenues. Designed to avoid the resource curse and harness oil revenues for growth and development of the non-oil economy, the agreement was intended to serve as a model for other oil-producing developing countries.

Chad, however, has a governance problem. This large, autocratic, landlocked, and intensely poor country of 8.7 million people is bordered by Cameroon, Central African Republic, Libya, Nigeria, and Sudan, a difficult neighborhood from several points of view. In 2000, the Heritage Foundation gave Chad its lowest ranking (10 on a scale of 10–100) for corruption, and in 2001 Freedom House offered a scathing assessment that, among other items, stressed the weakness of Chad's governance and judicial system. With that record, Chad seemed an unlikely subject for a much-publicized World Bank experiment to increase the transparency of notoriously opaque oil revenues and the accountability of those entrusted with administering them.

Even so, in exchange for agreeing to shoulder the risk of co-financing the Chad-Cameroon oil pipeline project, the World Bank extracted a pledge from the Chadian government that it would remove a large portion of the public oil-export revenues from its direct control and place the funds in an account to be used for current and future antipoverty investments. In other words, Chad's government committed to adopting a rational

policy for foreign exchange sterilization and targeted use of funds. This agreement would serve as an example for other governments burdened, like Chad, with weak institutions and a record of failing to use rents from their extractive industries for development. Following this model, they could begin to harness their resources for the long-term economic betterment of their populations.

Impressive as the World Bank–Chad agreement was, its unraveling has been even more dramatic, involving threats, recriminations, and important—if not yet fully felt—consequences on both sides. It has provided lessons about the limitations of good intentions and international leverage in achieving sound governance. Since Chad's leaders have found ways to appropriate oil income in spite of their commitment, it is unclear what impact Chad's oil revenues will have on the lives of most Chadians. Their conditions may worsen, as has occurred elsewhere—perhaps most dramatically in Nigeria. Alternatively, as a result of its acrimonious compromise with the World Bank, poverty reduction programs in Chad may expand and become more effective, thus improving the condition of Chad's people at least marginally. In any case, questions remain as to why the World Bank chose to back this highly risky infrastructure project.

Oil transforms Chad's economy

Chad has been known since 1975 to contain substantial oil reserves, with the Doba Basin fields estimated to contain over 1 billion barrels.¹ The consortium set up to develop the Doba

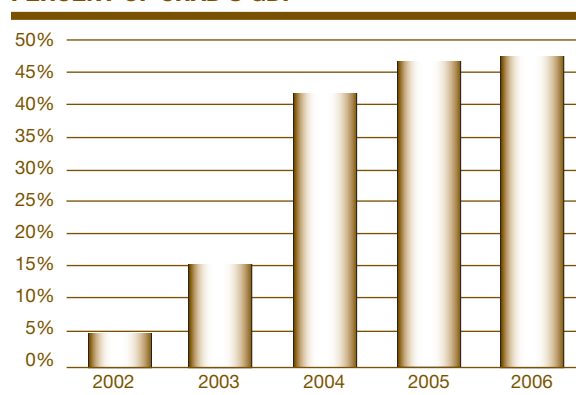
¹ Esso Exploration and Production Chad, "Chad/Cameroon Development Project: Development History," http://www.esso-chad.com/Chad-English/PA/Operations/TD_History.asp; Emerging Markets Online, "Central Africa Oil and Gas Report," <http://www.emerging-markets.com/PDF/CentralAfricaOilGasReport.swf>.

oilfields in southern Chad estimated in 2001 that peak output during the 25-year life of the project, beginning in 2003, would be 225,000 barrels per day. With caveats on actual oil prices during the production phase, the consortium estimated that “direct and indirect economic benefits, including direct revenues from royalties, fees and taxes, plus economic activity generated by local project spending and employment” would bring US\$8.5 billion to Chad in all.

Before the agreement with the World Bank, two factors had combined to keep investors out of Chad’s oilfields: the high cost of getting the oil from the landlocked country to the world market, and the risks entailed in dealing with an autocratic and corrupt government with a history of poor governance, little due process, and widespread disregard for the rule of law.

Lacking such investments, Chad had remained a largely agricultural economy. More than 80 percent of Chadians relied on subsistence farming and livestock for their livelihoods. Cotton and livestock exports accounted for virtually all of the country’s foreign exchange earnings, and for up to 40 percent of national income. And foreign assistance traditionally accounted for more than

VALUE ADDED IN PETROLEUM PRODUCTION AS PERCENT OF CHAD’S GDP



Source: IMF Country Report No. 07/21, January 2007.

50 percent of Chad’s public sector budget: in 2003, for example, it contributed more revenues than taxes and oil combined. Chad ranked 173 out of 177 in the United Nations’ 2005 Human Development Index (HDI).

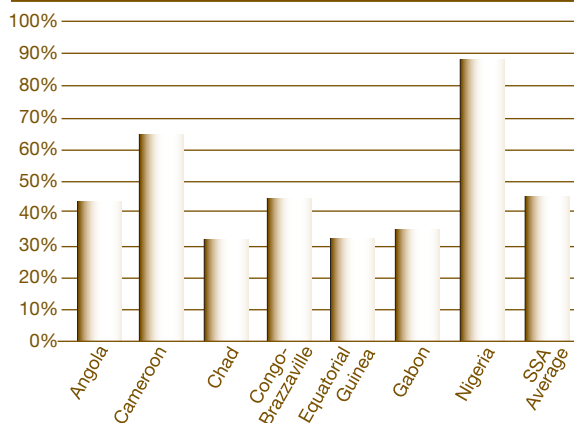
With the advent of oil production, Chad’s economy began to undergo a fundamental change. In 2003, which for Chadian oil was only a partial production year, petroleum already accounted for 15 percent of the country’s gross domestic product (GDP). This share rose to 41 percent and 46 percent, respectively, for 2004 and 2005; projections for 2006 approach the 50 percent line, as shown in the figure below at left. Petroleum now dwarfs other economic activities. It already accounts for 90 percent of exports.²

Chad, however, receives a smaller percentage of the total revenue derived from petroleum sales from its territory than nearly all its African oil-producing counterpart countries. While this is an inherent consequence of the oil revenue agreement between Chad and the World Bank, it is also a point of contention as the Chadian authorities and political class compare their situation to that of the ruling elites in other petrostates.

In 2003, before revenues from oil exports started coming in, Chad’s total government revenue amounted to 16.6 percent of GDP, boosted by tax payments from the construction of the pipeline. The Chadian government began to receive its first revenues from oil exports in July 2004; provisional figures for 2004 oil taxes were 69 billion CFA francs, or \$130 million. By 2006, oil revenues were estimated to account for 26.6 percent of total revenues, which in turn were estimated to correspond to 15.8 percent of GDP. Projected revenue-to-production ratios (to 2010) are shown for seven African petrostates in the figure at the top of the next page.

² African Development Bank/Organisation for Economic Co-operation and Development, *African Economic Outlook: Chad* (2005), <http://www.oecd.org/dataoecd/42/42/34871376.pdf>.

GOVERNMENT OIL REVENUE AS A SHARE OF OIL PRODUCTION IN SELECTED COUNTRIES OF SUB-SAHARAN AFRICA (SSA), 2005–2010



Source: Chadian authorities and IMF oil database, as reported in IMF Country Report No. 07/21, January 2007.

The Petroleum Development and Pipeline Project, along with accompanying projects aimed at developing Chadian institutions' capacity to manage oil revenues and improve overall public sector governance, are at the core of the World Bank's Chad oil experiment. In 1999, as a critical requirement for funding this project, the World Bank proposed a plan to ensure that the oil revenues would be managed transparently and primarily for social development purposes. The plan involved extracting promises (to be enshrined in legislation) from Chad on the placement and use of Chad's oil income. This proposal led to a formal agreement between the Bank and the Chadian government that stressed the transparent and equitable use of the direct and indirect revenues the country would earn from petroleum development and exports.

The management of petroleum production

Three large oil companies make up the consortium that has explored and developed Chad's first oil fields, built the Chad-Cameroon pipeline, and established a system to produce, transport,

and export oil from Chad to the Atlantic coast of neighboring Cameroon. Known in documents as the "Upstream Consortium," the group includes ExxonMobil; Petronas, the Malaysian state oil company; and Chevron. To operate the pipeline, which crosses both countries, the Upstream Consortium has engaged in two joint ventures: the Tchad Oil Transportation Company (TOTCO) with Chad, and the Cameroon Oil Transportation Company (COTCO) with Cameroon. The consortium is the majority shareholder in the pipeline; TOTCO holds a minority share in the Chadian section, while COTCO has a similar share in the downstream Cameroon stretch.

Since the development of the Doba oilfields and the Chad-Cameroon pipeline, other oil companies have increased exploration and development of oilfields elsewhere in Chad. These companies include a consortium led by EnCana, a Canadian oil firm, which holds the exploration rights to an area of over 400,000 square miles.³ Another Toronto Stock Exchange-listed firm, Energem, which has a "strategic alliance" with PetroChina, has received a permit to explore and produce in southern Chad. Unfortunately, the new oil fields do not come under the World Bank agreement to manage petroleum revenues.

The Chadian oil revenue management law

Chad's oil revenue management law (*La Loi 001/PR/99 portant gestion des revenus pétroliers*) was required as a precondition of World Bank participation in the oil project. Along with a disputed amendment (Law No. 016/PR/2000), it defines the framework for allocating and disbursing the government revenues from the three Doba fields under exploration and development by the Upstream Consortium. It also lists and describes the institutions that will provide oversight and accountability.

³ Ian Gary and Nikki Reisch, *Chad's Oil: Miracle or Mirage? Following the Money in Africa's Newest Petro-State*, Catholic Relief Services and Bank Information Center, February 2005.

Under the terms agreed upon for the Revenue Management Program (RMP), affected revenues include royalties due from the oil companies (specified in the “Upstream Convention”); dividends from TOTCO and COTCO, in which the Chadian government is a shareholder; and taxes on the profits of TOTCO, COTCO, and the oil pipeline consortium members.

The agreement’s “flow of funds” and “use of funds” sections are the core elements intended to spare Chad the worst of the ills African countries have suffered from mineral wealth. Under the RMP, all oil revenues accruing to the Chadian government were to flow through the offshore escrow account monitored and overseen by a public-private group, the Committee for the Control and Supervision of Oil Resources (CCSRP), to be set up under the agreement. Indirect revenues (taxes, fees, and customs duties), particularly taxes, were to be paid directly to the Chadian treasury.

In its original form, the law treated direct revenues (dividends and royalty payments to the government) differently from indirect revenues. Direct revenues were to be deposited into offshore escrow accounts in an international bank in the name of the Republic of Chad. Ninety percent of direct revenues were then to be disbursed to government treasury accounts in local (Chadian) banks. The remaining 10 percent was to be deposited into a “Future Generations” savings account in an international bank. Article 7 of the law simply states, “Direct resources shall be mainly allocated to priority sectors,”⁴ but that provision has been interpreted to cover only the 90 percent of direct revenues to be deposited in local banks.

The priority sectors to be funded with the bulk of Chad’s direct oil revenues were public health, social services, education, rural development

(agriculture and livestock), infrastructure, and environment and water. These sectors were expected to claim 80 percent of the amount deposited into local banks, or 72 percent of all direct revenues. Fifteen percent of the direct revenues earmarked for immediate repatriation (13.5 percent of total direct revenues) were to support “operating and investment costs of the State, for a five-year period from the production date.”⁵ Since production began in 2003, this clause terminates in 2007. Five percent of the direct revenues were slated for communities in the oil-producing region.

Oversight structures

Perhaps even more important than the provisions governing allocation of oil revenues were those setting up oversight or accountability bodies to ensure that Chad would end up better off after the discovery and exploitation of its oil resources than it was before. The premier oversight body was to be the CCSRP, whose mandate was to verify that the special accounts conformed with the annual budget and to authorize and control the disbursement of special accounts and allocation of the funds. Oversight was also to be provided by Parliament (in the context of budget setting) and the General Accounting/Auditing Office of the Supreme Court.

The CCSRP is set up like many public-private oversight bodies, with representation from various areas of government and civil society. Under the original law, the CCSRP comprised seven governmental and two civil society representatives:

- one Supreme Court judge;
- one member of Parliament;
- one Senator;
- the National Director of the Banque des Etats de l’Afrique Centrale;
- the Director General of the Treasury;

⁴ English translation of Law 001/PR/99 as found in English Environment Management Plan (EMP), Chad Portion, Volume 4, Part II, May 1999.

⁵ Ibid.

- the Director of Petroleum Resources;
- the Director of Planning and Development;
- one representative of local nongovernmental organizations (NGOs); and
- one labor union representative.

An amendment to the law in 2000 removed the last two public sector positions listed above, replacing them with additional representatives from civil society. These were later identified as delegates of the Chadian Human Rights Association and of religious groups (the latter rotating among Catholic, Protestant, and Islamic representatives).

In addition to the CCSRP, the World Bank–Chad agreement called for two external oversight groups. The first, the International Advisory Group (IAG) on the Chad-Cameroon Petroleum Development and Pipeline Project, was appointed in February 2001. The IAG was intended to monitor compliance with the agreement, especially the allocation of funds. The second, the External Compliance Monitoring Group (ECMG), was intended to oversee the use of Chad's oil revenues and to monitor the impact of the oil project on surrounding communities. The ECMG focuses primarily on environmental impacts, but it also reviews progress in building the capacity to use oil revenues for broad-based and equitable economic growth.

Unilateral changes undermine the agreement

The 2005 amendments

At first, all parties seemed reasonably pleased with the “model” World Bank–Chad agreement. But within a few years, arguing that he needed more funds for immediate security and budget needs, the Chadian president reneged on its fund allocation requirements. Even though the accord

permitted no alteration to Law 001/PR/99, at the president's behest Parliament reversed the agreement's key terms in December 2005. As the Bank Information Center reports, this amendment

essentially strip[ped] it of its strongest provisions by eliminating the savings account for the post-oil era; increasing the portion of revenues that flow directly to state coffers, by-passing the government-civil society oversight body charged with controlling petroleum revenue expenditures; and including security spending among the “priority sectors” to which oil funds can be allocated.⁶

Within a few weeks, these unilateral changes prompted the World Bank to suspend its lending to Chad (freezing \$124 million) and freeze Chad's \$12 million in the London-based escrow account. This move promised to put Chad in arrears or in default vis-à-vis its equity role in TOTCO, among other things.

Chad, however, had weapons of its own. After intense but inconclusive discussions, in April 2006 the Chadian government threatened to halt oil exports. By the end of the month, the World Bank and Chad had reached an interim agreement permitting Chad to increase the share of its direct oil revenues earmarked for unsupervised spending to 30 percent. The World Bank thereupon unfroze Chad's loans and escrow account funds.

In July 2006, the World Bank and Chad signed a memorandum of understanding (MOU) formalizing the April agreement. Under the MOU, 70 percent of Chad's entire 2007 budget (including indirect oil revenues and other sources of government revenue) was to go to poverty-reducing sectors, which would now include spending to improve governance. In addition, Chad was to develop a medium-term expenditure framework, a new

⁶ Bank Information Center, “BIC Discusses Chad Oil Pipeline on NPR: Collapse of Bank's ‘Model’ Project Offers Lessons and Exposes Risks to the Poor,” March 7, 2006, <http://www.bicusa.org/en/Article.2668.aspx>.

Poverty Reduction Strategy Paper, and a stability fund to absorb resources in excess of agreed-on annual needs. The rest of the year was marked by disputes between the Chadian government and members of the Upstream Consortium over oil tax payments.

Can the situation be salvaged?

Where does this broken agreement leave prospects for sustained and equitable development of Chad? Is Chad better off now than it was before oil exploitation began? Does it have an effective “antidote” to the resource curse, or do the indicators point toward misuse of the resources, poor accountability, macroeconomic instability, and a worsening of conditions for most Chadians? While the jury is still out, the situation appears discouraging for those who had hoped Chad would become a shining example of the wise application of oil resources for development.

In some ways, Chad had nowhere to go but up. Before the agreement it had some of the worst economic and social development indicators in the world, including extensive poverty, high mortality rates, and low literacy rates, especially among girls and women. At an aggregate level, the influx of oil revenues has produced some positive results. Growth rates have shot up. Total national income has grown, and with it, the popular per capita income measure of GDP/capita. But historically, oil is the epitome of an enclave industry, especially in poor developing countries. In Chad, employment creation has been very limited, with most of the direct employment effect evaporating once the pipeline was complete.⁷ Chad’s ranking on most other development indicators, including the HDI, has also dropped since the pipeline was launched (<http://www.alertnet.org/db/cp/chad.htm>).

In short, it has proven far easier to get the oil out of the ground and shipped to world markets than to ensure that the revenues are well used. The World Bank projects to strengthen the capacity of the Chadian government to manage oil resources and revenues have faltered, leaving the government’s public expenditure management apparatus weak just when the influx of oil revenues requires strengthened capacity. Chad has ranked at the bottom of Transparency International’s Corruption Perception Index (CPI) since it was first rated in 2004. In 2005, it tied for last place with Bangladesh; in 2006, it shared rank 156 with Bangladesh, Congo (Democratic Republic), and Sudan. The cynical but widespread perception is that both the World Bank and the Chadian government are more interested in petroleum production and revenues than in the equitable development of Chadian society. The most recent IAG report tells of increasing tensions between the oil consortium and the local population.

Though internal and external monitoring groups have pursued some relevant activities, they have proven ineffectual overall. For example, a recent assessment of the ECMG noted that while it made regular site visits during and after the construction period, it had had little impact on actual operations. The appraisal concluded: “The work of external monitors can indeed provide much value added. But it can also be used as a public relations tool and a fig leaf for poor implementation of social and environmental commitments.”⁸ For its part, the IAG has undertaken fewer missions than intended, although its reports are full of information that will be useful to analysis of Chad’s experiment in oil revenue management, as well as to any reform efforts.

⁷ A Thunderbird School report shows that construction jobs peaked at 13,100 in the fourth quarter of 2002, of which 72 percent were local hires. Two years later, according to the BIC-CRS report cited above, the Upstream Consortium employed only 2,292 Chadians, in addition to 1,091 expatriates. See Thunderbird, The Garvin School of International Management, “The Chad-Cameroon Oil Project: Poverty Reduction or Recipe for Disaster?” (2004); Gary and Reisch (2005).

⁸ www.environmentaldefense.org/documents/5643_IFC_ECMG.pdf.

The CCSRP began its work relatively late in the process. It was not until July 2003 that the necessary decree was passed to specify how the CCSRP would function.⁹ Moreover, its independence was compromised by the government's decision to fill its seats only with friends and loyal allies, and it has likewise had little impact.

Undoubtedly the World Bank was overoptimistic about what the combination of moral suasion, the CCSRP, the two external oversight bodies, and goodwill on the part of the Chadian government could achieve. The very lack of rule of law and good governance that required establishment of a domestic oversight agency like the CCSRP was what compromised its effectiveness. Political interference undermines this sort of organization, not only by swaying its decisions but by sowing doubt about its objectivity. In any case, national security crises such as Chad experienced in 2006, just prior to the elections, will trump any agreement made with the international community.

Over the next five years it will be important to monitor implementation of the World Bank–Chad MOU of July 2006. International and domestic

analysts and NGOs will need to see whether funding for priority sectors in fact reaches 70 percent of total government oil revenues, as specified in the agreement. They will need to drill down within those allocations to look at what is actually being funded. The analysts and NGOs will also need to scrutinize the quality of institutions set up to prioritize projects, as well as those established within the Ministry of Finance and the implementing ministries to manage the flow of funds and ensure sound investments. Improving project identification and selection and the transparency of the procurement process will be especially critical as oil revenues rise. And the CCSRP needs to be equipped to resist political interference and to be more financially independent. The fact that the World Bank blinked during its standoff with Chad is no reason for stakeholders and donors to stop pressuring the Chadian government for accountability, transparency, and attention to the pressing needs of its people. ■

⁹ Gilbert Maoundonodji, *Strengthening the Involvement of Civil Society in Monitoring and Controlling the Management of Oil Revenue in Chad*, Group for Alternative Research and Monitoring of the Chad-Cameroon Oil Project, Chad.

STANDING UP TO THE RESOURCE CURSE: THREE CASE STUDIES

by Brandon Lundberg, Meral Karan, and Ulrich F.W. Ernst

Every blessing ignored becomes a curse.

Paulo Coelho (Brazil)

Facing the resource curse: Toward a medium-term financial framework for Angola

By Brandon Lundberg

Angola's economy certainly qualifies as a target for the resource curse. It is already suffering from a combination of inflation, diminished competitiveness, and appreciation of the real exchange rate due to surging petroleum revenues. From 1999 to 2003, oil accounted, on average, for 54.3 percent of gross domestic product (GDP). Between 2001 and 2005, petroleum exports represented 92.1 percent of gross exports. This high level of dependence leaves Angola extremely susceptible to changes in the world price of oil. Moreover, Angola's government is still struggling to move beyond an organizational structure defined by a 27-year-long civil war. It has yet to develop a sustainable means of sterilizing the financial inflows from the sales of its oil bonanza—for example, diverting the revenues abroad to avoid distorting the domestic economy—and the country is now experiencing considerable difficulty in absorbing the cash inflows.

Since oil exports started, Angola's currency, the kwanza, has appreciated significantly, and revisions to the nominal exchange rate have not been able to keep up. As a result, the necessary adjustment in the real exchange rate has been made through galloping domestic inflation.

Between 2000 and 2005, the Consumer Price Index for Luanda grew at an average annual rate of close to 150 percent.¹ The real exchange rate index (kwanza to the dollar) dropped from 100 in 2000 to just above 20, before recovering to about 55 in 2005. This still implies a significant appreciation of the real exchange rate—a development that dooms efforts by Angolan manufacturers and farmers to compete, domestically or in export markets, with their counterparts from countries with lower inflation. All other things being equal, their competitiveness dropped by almost one-half over the five-year period. Since they are being priced out of their own market, entrepreneurs in these sectors are now under pressure to move into nontradables and services for which the rapid growth in the oil sector is boosting demand.

Angola has also become vulnerable in fiscal terms. Petroleum revenues have swollen government coffers, leading to massive spending with limited strategic guidance and gravely undermining long-term fiscal discipline. Without a proper monitoring framework in place or the capacity to absorb large inflows so quickly, many of the resources are poorly targeted, and it may not be possible to trim expenditures to meet income when world oil prices fall. At that point, the government may be forced to borrow heavily to honor its commitments.²

Promoting medium-term framework tools

Various schemes have been proposed to sterilize the foreign exchange flowing into the country, including setting up an investment fund abroad or a stabilization fund. An investment fund accumu-

¹ At present there is only enough data collection capacity to calculate a CPI for Luanda, the capital city.

² Developing countries can only absorb and effectively use a finite amount of cash inflows, due to the decline in marginal returns on additional inflows of resources.

lates assets from resource revenue when resource prices exceed a target level and then pays out the income earned on the assets over time to future generations, while a stabilization fund attempts to smooth consumption by accumulating funds when resource prices exceed a target level and dispensing them when prices fall below the target. For a developing country like Angola, however, saving a significant portion of the revenues from oil and investing them abroad during boom periods represents a solution that is difficult to defend at home, in view of its many unmet social needs. What is needed now is to develop (and adhere to) a strategic framework to guide expenditures, primarily on investments in the country's future—investments that reinforce current competitiveness and lay the foundations for competitiveness in the future. Such a strategic framework is needed to ensure that the massive inflows are targeted to areas that match the government's development goals and can be adjusted for changes in world oil prices.

In the process of developing such a framework, several questions must be asked:

- Is there a weak link between policy, resource limits, and budgets? Are the strategic objectives set forth not being met?
- Are annual targets constantly revised downwards and suboptimal choices therefore made?
- Is there a separation between capital and recurrent budgets? Are the capital returns lower than projected?
- Is the budget non-comprehensive? Are other means used to support favored projects?
- Is there a mismatch of roles and responsibilities? Should project X belong in another department?³

Depending on the answer to these questions, the introduction of a medium-term fiscal framework (MTFF) can represent the first step toward crafting a comprehensive government strategy. The MTFF

seeks to ensure that the size and structure of the budget meet stated policy objectives without foregoing macroeconomic stability. It integrates macroeconomic and revenue projections, thereby serving as the basis for a broader medium-term macroeconomic framework (MTMF) tying together policy, revenues, expenditures, and national development objectives.

The MTFF links revenues to the macroeconomic program and to world conditions. A debt projection module provides an additional exogenous input to establish fiscal balances and certain expenditure components (chiefly interest payments). The expenditure model used to inform the MTFF projects spending opportunities and constraints by economic classification, such as the wage bill, interest payments, purchases of goods and nonpersonal services, transfers, and capital spending.

Once the expenditure model is in place, stress tests can provide various scenarios that check for weaknesses in the structure of programmed funds. What happens, for example, if crude oil prices drop by US\$10 per barrel in less than a year—as they did (in today's prices) in 1986, when Saudi Arabia linked its oil prices to the spot market for crude and more than doubled production? What are the impacts of an increase of \$21 per barrel in two years, as happened in the late 1980s as a result of the Iraq-Iran War? How must financing be realigned so macroeconomic stability can be maintained? Stress tests that consider such scenarios before they occur will reduce fiscal vulnerability when contingencies actually happen.

Using the MTFF to confront the resource curse

In July 2004, DAI began working in Angola under the auspices of the U.S. Agency for International Development (USAID) to help the Ministry of Finance build its capacity in fiscal programming.

³ Christian Eigen-Zucchi, presentation on "What is a Medium-Term Expenditure Framework and How Does it Work?" from the Public Budgeting and Fiscal Management course, Georgia State University, August 15, 2006.

Our initial recommendations led to the establishment of a fiscal programming unit, the *Unidade de Programação Fiscal* (UPF), within the *Gabinete de Estudos e Relações Económicas Internacionais* (Office of Research and International Economic Relations). Currently, DAI is implementing a new project, also funded by USAID, aimed at anchoring an MTFF in the overall policy-making process.

In addition to the policy design and associated stress tests, using an MTFF imposes a more rational structure on the design of fiscal reforms in other areas and makes it easier to implement them.⁴ The DAI project is facilitating the implementation of this approach to address several problems:

- Compiling the central administration's *Balanço Fiscal*—its revenue and expenditure flows, along with the changes in assets and liabilities accounts—requires using data from a number of different public sector organizations. The data arrive in a variety of formats and standards, causing a significant statistical discrepancy when entered in the *Balanço Fiscal*. One of the project's goals is to pinpoint the inconsistencies and work with the UPF to standardize the formulating procedures.
- For much the same reason, the general government's monthly accounts will also need to be standardized.
- Sonangol, the state oil company, has for many years carried out “quasi-fiscal” expenditures that have not been consistently recorded on the central administration's accounts. The project will seek to assist the UPF in resolving these issues.

Once the *Balanço Fiscal*'s statistical discrepancy between the “above the line” (revenue and expenditure flows) and “below the line” (changes in assets and liabilities) has declined to an acceptable level, the data can be used to set accurate

macroeconomic stability targets and develop the components used for the projections.

While an MTFF (or its “grown-up” sibling, the MTMF) is not a panacea for the insidious effects of large foreign exchange inflows, it offers a practical response to the needs of a poor country by raising transparency and focusing policy on development priorities. Together with other measures, it represents a valuable tool for facing the resource curse.

Fighting the resource curse: The Azerbaijan response

By Meral Karan

A long history, but an institutional void

Oil and gas wealth have shaped Azerbaijan's history for millennia. The nascent Zoroastrian religion made worship of the “eternal flames” from the local flows of natural gas an important part of its ritual. Accounts of commerce that may go as far back as Marco Polo (1254–1324) reported on the regional oil trade, which culminated with the area's first oil boom. Tsarist Russia, to which Azerbaijan belonged, was the world's largest oil producer at the beginning of the 20th century; Baku accounted for 50 percent of the world's oil production at that time. During World War II, Azerbaijan provided more than half the oil supplies of the entire Soviet Union.⁵

In spite of several centuries of resource abundance, Azerbaijan has had little experience managing its oil revenues. Until relatively recently, proceeds from oil sales were managed centrally, first by imperial Russia and then by the Soviet Union's state planning agency. Independence in 1991—Azerbaijan's first chance to run its own affairs since a 23-month interlude between 1918

⁴ Balázs Horváth and István Pzékely, “The Role of Medium-Term Fiscal Frameworks for Transition Countries: The Case of Bulgaria,” IMF Working Paper No. 01/11, January 2001.

⁵ Azerbaijan International (1995), http://azer.com/aiweb/categories/magazine/32_folder/32_articles/32_ww22.html, May 18, 2007.

and 1920—therefore presented a formidable management challenge. Azerbaijan's major markets collapsed. A draining conflict with Armenia over the Nagorno-Karabakh region (1991–1994) internally displaced approximately 1 million Azeris and cost Azerbaijan the control of a large piece of its territory. And the country's political climate remained unstable even after the active fighting stopped. GDP dropped over 60 percent from 1991 to 1995. Trying to cushion the economic slump, the government resorted to printing money to cover soaring deficits, creating hyperinflation and a currency crash. In 1994 alone, the currency depreciated by 1,300 percent.

The consolidation of power under President Heydar Aliyev in 1995 brought the chaos of the early 1990s under control. The government's focus on stronger fiscal and monetary management reined in the economic free fall, bringing inflation to less than 2 percent. In addition, the government launched a program to promote the country as a stable place for foreign direct investment, particularly in the oil and natural gas industries.

This strategy paid off. After signing numerous lucrative production-sharing agreements (PSAs) with foreign companies such as BP, the government had the revenue it needed to support a stronger currency and reduce unemployment and poverty. The past 10 years have seen the development of the Azeri-Chirag-Guneshli oil fields and the Shah Deniz gas field, as well as the completion of the Baku-Tbilisi-Ceyhan (BTC) pipeline, which now carries Azeri oil for export.

Some good economic news—but the resource curse strikes

This development of the oil sector has generally brought good news. According to World Bank estimates, oil revenues have stimulated impressive growth rates in real GDP—26.4 percent in 2005, 34.5 percent in 2006, and a projected 21.0 percent in 2007. The incidence of poverty among Azeris has dropped, from 61 percent (with 20

percent in extreme poverty) in 1995 to a still challenging 29 percent (8 percent in extreme poverty) in 2005. And the country continues to attract significant levels of foreign direct investment.

At the same time, construction and services—basically nontradables—have been growing along with the petroleum sector. As a result, the overall performance of the non-oil sector seems rather satisfactory at first glance: the World Bank reports that the non-oil economy has averaged 15 percent growth over the past five years. However, despite Azerbaijan's success in reducing its earlier hyperinflation, there are growing indications that its currency, the manat, is appreciating. Inflation approached 10 percent in 2005, and after dipping to 8.5 percent the following year, it was expected to rise again to approximately 16 percent during 2007, according to a recent European Bank for Reconstruction and Development (EBRD) report (<http://www.ebrd.com/pubs/econo/tru07.htm>, page 65). Real exchange rate appreciation is making imports cheaper than domestic production and reducing the competitiveness of non-oil exports.

As a result, there are indications that the non-oil tradables sector—manufacturing and agriculture—is losing ground, a situation exacerbated by the existence of monopolies in many private industries (EBRD, page 8). Unfortunately, the oil industry, while providing high revenues, is not nearly as labor-intensive as traditional manufacturing or agriculture. The result is a slow growth rate for productive jobs as labor-intensive goods are no longer exported and domestic market share is lost. These developments in turn threaten Azerbaijan's productivity growth and competitiveness in the future.

These ominous trends—all characteristic of Dutch disease—are augmented by problems associated with the increase in the size of government. While the government role is growing, planning for public sector expenditures is becoming increasingly fragmented. Spending on capital investment is rising rapidly, but the legislative, institutional,

and technical capacity to manage such large outlays effectively is lacking. Income inequality and structural distortions are an ever-growing problem.

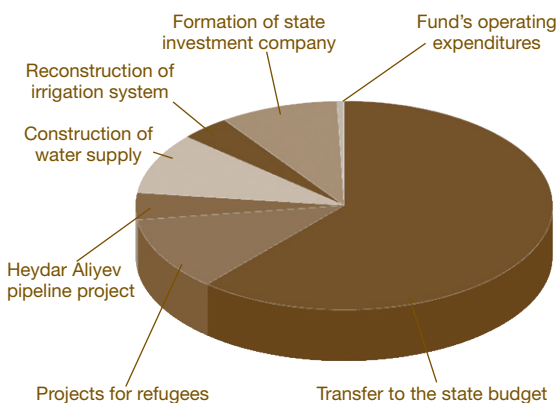
Trying to manage the foreign exchange bonanza: The State Oil Fund of Azerbaijan

Officially, the Government of Azerbaijan has acknowledged the need for careful handling of the foreign exchange flows, citing the failures of other countries in this area. It has committed itself to supporting “intergenerational” equity, emphasizing the effective allocation of oil income to bring about long-term growth. In December 1999, a presidential decree created the State Oil Fund of Azerbaijan (SOFAZ), designed to avoid the pernicious effects of ever-larger foreign exchange inflows through improved management. The fund’s mission statement stresses the need to build the non-oil economy and to reduce poverty.

An extrabudgetary fund, SOFAZ receives revenues from a number of sources—the State Oil Company of Azerbaijan, PSAs, PSA-mandated dividends and profit-sharing, bonus payments, acreage fees for land use, transportation fees through BTC and other oil and gas pipelines, and SOFAZ portfolio investments. Revenues accruing to SOFAZ do not depend on the oil price’s exceeding a specified level, as is the case for many other state oil funds; the fund receives oil proceeds regardless of what the market is paying.

As a member of the Extractive Industries Transparency Initiative (EITI), the Government of Azerbaijan discloses all information on SOFAZ revenues and expenditures on its website, www.oilfund.az, where EITI is prominently featured. (EITI is discussed in the article “Tools for Treating the Resource Curse” in this issue.) The 2005 annual report shows net assets at \$1.39 billion, up from \$964 million in 2004. The figure above gives a simplified picture of SOFAZ expenditures for 2006 (955 AZN, or \$208 million).

ESTIMATED SOFAZ EXPENDITURES FOR 2006



The fund has several main expenditures aside from its own operating expenses. These include transfers to the state budget and to programs assisting internally displaced people, as well as financing for the BTC pipeline, water and irrigation construction activities, and the statutory capital of a state investment company.

The portion of SOFAZ funding allotted to the consolidated budget should be going through Azerbaijan’s public investment policy process, which is intended to ensure the creation and financing of high quality, high-need projects. However, the rather opaque SOFAZ expenditure policy permits the funding of investment projects not planned in the budget, bypassing the public investment program. This prevents consistency and reduces the efficiency of the government’s economic planning for long-term sustainable economic growth. Confining all capital spending to a public investment process guided by a medium-term expenditure framework would make it possible to rationalize Azerbaijan’s investment program, including SOFAZ investments, and support long-term growth, especially of the non-oil sector.

Since 2005, DAI’s USAID-funded Public Investment Policy Project (PIPP) has been working on some of these issues with the government of Azerbaijan, primarily through the Ministry of Economic Development and the sectoral line

ministries. Its goal is to make economic planning and project development more consistent with the national public investment policy and budgeting. Similar coordination introduced into the SOFAZ investment planning process would allow national development priorities to be supported by real public resources through the budgeting process. Specifically, to get the most out of each dollar invested using SOFAZ resources:

- Capital investments should be prioritized and programmed to achieve overarching national development objectives.
- All agencies requesting projects must use effective project preparation and appraisal techniques to estimate future yields to the Azeri economy and society.
- Projects should be consistent with and support the nation's development priorities, public investment policy, and expenditures framework.

As never before, development, approval, and enforcement of this process is an urgent task for the central government. Coupled with the sound management of SOFAZ funds and rationalized credit and monetary policy, this effort will be the best response to the emergent symptoms of Dutch disease.

Foiling the resource curse: Norway's Petroleum Fund

By Ulrich F.W. Ernst

With petroleum exports at a high—and growing—level (exceeding 43 percent of total estimated exports in 2005), Norway has put in place structures and procedures to elude the resource curse that often attends such a wind-fall. The core element of Norway's strategy is what used to be known as the Petroleum Fund (*Oljefondet*) of Norway, which changed its official name to Government Pension Fund—Global (*Statens pensjonsfond—Utland*) on January 1, 2006. This fund now forms one part of the total

Government Pension Fund, together with the National Insurance Scheme Fund. The Norwegian Parliament launched the Petroleum Fund in 1990 to buffer the expected decline in petroleum-related income over time and to smooth out the disrupting effects of fluctuating petroleum prices. Revenues for the fund were to come from taxes and royalties of the oil companies. But it was not until 1996 that the first real transfer into the fund took place from a surplus in the government accounts for 1995.

The Petroleum Fund stood at roughly \$289 billion by the end of 2006, well exceeding Norway's estimated 2006 GDP of \$262 billion (at the official exchange rate; the purchasing power parity GDP is estimated at \$207 billion). The largest pension fund in Europe, it is similar in size to the California public-employees pension fund—the largest public pension fund in the United States. Current forecasts imply that the fund will grow until 2020.

The size of the fund, in relation to Norway's relatively small population of 4.6 million, has stimulated considerable public scrutiny. The debate focuses on three areas:

- **Investing abroad vs. addressing problems at home.** The government has a solid rationale for its goal in directing the Petroleum Fund—to sterilize oil revenues by deflecting them from the Norwegian economy. The main concern is, of course, appreciation of the Norwegian currency, the krone; the policy therefore focuses on keeping the exchange rate between the krone and other European currencies stable. Fund reserves are entirely invested abroad, in both fixed-income and equity instruments (since 1998, up to 50 percent of total reserves can be invested in foreign stock markets). Even so, some have called for directing more of the current petroleum revenues to address current problems. That argument views the efforts to sterilize those revenues as “capital flowing out of the country.” While those voices are heard, there is no sign that the government

will change course: with total reserves exceeding annual GDP, the specter of Dutch disease looms large. The proceeds from the fund have not been used to reduce the government's outstanding debt. Still, there has been some sensitivity to the "domestic" arguments. The name of the fund was changed at least in part to improve the fund's image by stressing future benefits.

- **Investment risks in (foreign) equity markets.**

One camp in Norway argues that the fund's substantial investments in volatile foreign equities create excessive risks. Currently, equity investments account for some 40 percent of total investments. Another camp argues that the equity component is too low to take advantage of the better long-term performance of stock markets. The government is spreading investments across industries and regions to control the fund's exposure, and management guidelines limit the fund's investments to 5 percent of the capital of any given company (up from 3 percent before 2006). The fund's average exposure in the companies it has invested in is 0.3 percent.

- **Ethics.** Much of the current debate focuses on the ethics of equity investments: are the fund's resources being used responsibly, guided by the social consensus supporting peaceful activities and environmental protection? This discussion has inspired several changes in the institutional management and oversight of the fund. Most of the fund's management has now been shifted to a specialized unit in Norway's Central Bank, Norges Bank Investment Management (NBIM), which operates under Ministry of Finance guidelines. The NBIM also manages other long-term government funds, such as the foreign exchange reserves and the Petroleum Insurance Fund; this step was designed to ensure that a single institution bears the responsibility for all portfolios managed with a long time horizon.

Since the Ministry's principal focus is the fund's financial performance, it monitors the markets in which the fund invests to establish quantitative benchmarks for evaluating fund performance. At the same time, though, Norway's government is holding the NBIM to an increasingly rigorous ethical standard. In 2004, a royal decree created the Advisory Council on Ethics; the Ministry of Finance prepared guidelines for fund management that address ethical issues; and the NBIM went so far as to hire a moral philosopher, with no background in finance or business, to help it chart an ethically sound course. As a result, a number of companies have been excluded from the fund's portfolio, and the NBIM is also looking for ways to leverage its ownership in companies where it maintains a stake.

The salient feature of the Norwegian approach is complete transparency, reinforced by a public debate in civil society, the media, and Parliament. Concerns about the fund's development role persist, as its recent name change reflects, and the search for the right course continues. But the fund and its management are being steered by a broad consensus on its economic, financial, and ethical direction. The institutional structures on which this consensus rests may be difficult to emulate in more heterogeneous societies.

At the same time, from an economic point of view, the fund is working out quite well. Norway is ranked number 12 (out of 124 countries) in the latest Global Competitiveness Report. Its unemployment remains consistently low, and the latest inflation rates are about 1.7 percent per year. It seems fair to say that so far, the curse has, in fact, been foiled. ■

TOOLS FOR TREATING THE RESOURCE CURSE

by Mark Gallagher and Steve Rozner

Where institutions are strong, governments democratic and responsive, and technical capacity abundant, natural resource booms and busts can be handled in ways that smooth their impact on the economy and fuel non-inflationary, long-term economic growth. So goes the consensus in the literature. Examples include Norway, the United Kingdom, Botswana, the state of Alaska, and the province of Alberta, Canada.

Of course, some countries where institutions today are resilient have not fared well in their management of past booms. In colonial Spain, development lagged behind neighboring countries as its economy succumbed to the easy riches of the precious metals flowing in from the Americas. Likewise, the Netherlands in the 1960s saw its competitiveness dwindle as exports of natural gas were taking off. Its experience lives on as “Dutch disease”—an appreciating exchange rate and a resulting loss of competitiveness in both domestic and in particular export markets.

Many studies—such as Ahmad and Singh (2003)—have found that natural resource abundance slows economic growth because it tends to undermine the economic institutions of the country. Sala-i-Martin and Subramanian (2003) find evidence to further support Ahmad and Singh, confirming that natural resource abundance has “a seriously detrimental impact on the quality of domestic institutions, and, through this channel, on long-run growth” (page 34).

Fiscal impacts of natural resource abundance can also be devastating. Resource-rich countries tend to morph into “rentier states,” where governments

and the people disconnect, mainly because normal taxation may no longer seem necessary. In a rentier state, the government focuses on extracting and distributing rents from the natural resource sector while ignoring such vital functions as providing public goods. The government’s distribution functions become bloated, while important work goes untended and the country falls hostage to swings in world market prices of its commodities.

Many countries have feasted during their revenue booms, only to go bust in the leaner years. Mindful of this threat, Norway established its Petroleum Fund in 1990 with the intention of smoothing these gyrations, insulating the economy and society from major fluctuations and disturbances, and funding future pensions for an aging population. While Norway’s fund has worked out well overall, this has not always been the case for other countries that have instituted similar measures. For instance, Venezuela’s Macroeconomic Stabilization Investment Fund, despite its name, has failed to steady the Venezuelan economy and seems to be merely a means of funding featherbedding and nepotism for the country’s populist leaders. According to Tsalik and Ebel (2003, 30):

The same absence of fiscal discipline that has plagued Venezuela for decades has also affected the Fund’s performance. Frequent rule changes, failure to comply with Fund requirements, and continued debt accumulation have diminished [the Fund’s] effectiveness as a stabilization mechanism.

Strong, democratic, well-managed institutions benefit all aspects of civil life in any country, and building them remains an overall objective for countries struggling to handle natural resource wealth. Yet the need to take full advantage of abundant resources is often too urgent to wait for an institutional revolution. In this paper, we propose a set of “tools” that can help to convert the resource curse into a blessing. The tools we discuss are interconnected, are not mutually exclusive, and may not all need to be implemented at once. Nor are they one-off interventions or turnkey projects, but require constant attention and nurturing.

These tools fall into three broad categories:

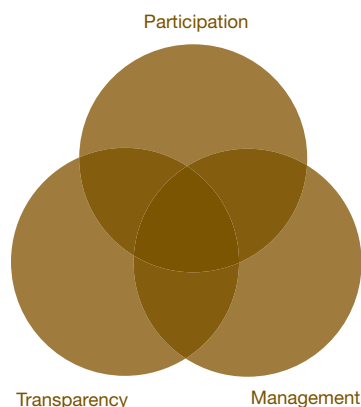
- **Participation:** increasing public involvement in planning for, controlling, and distributing benefits arising from the resource bonanza.
- **Transparency:** improving the transparency of the fiscal sector and ensuring a full accounting of natural resource revenues.
- **Management:** helping government to manage its resource revenues so as to optimize social and economic benefits.

The figure at right depicts how simultaneous application of these tools creates a target zone where management tools are in place, transparency prevails, and public participation is encouraged. That overlap characterizes countries such as Norway or Botswana that have succeeded in foiling the resource curse.

Participation

The mere presence of a resource abundant and valuable enough to dominate a country’s gross domestic product (GDP) invites rent seeking from powerful interest groups. Yet even in these rentier states, appropriate tools can give the public, or at least a representative body of the public, a more active and formal voice in public sector operations. Three mechanisms in particular can give the public a stronger voice in the dialogue about

GETTING INTO THE “TARGET ZONE”



revenues from natural resource extraction: 1) fiscal pacts; 2) the Poverty Reduction Strategy Paper process; and 3) civil society budget initiatives.

Fiscal pacts

Schneider et al. (2004, 2) define fiscal pacts as negotiations (and the agreements derived from them) between organized societal and political interests about public expenditures and how to finance them. These kinds of negotiations are useful not only for getting agreement on fiscal goals, but also for putting crucial discussions—debates over big social, political, and economic issues affected by fiscal policy—onto the public agenda. Guatemala’s *Pacto Fiscal*, signed in 2000, brought together government, private sector, and civil society groups to develop a package of tax and spending proposals that would help the government carry out social and economic reforms promised in the country’s Peace Accords. It not only set targets for total revenues to be allocated for this purpose (8–12 percent of GDP), but also for expenditures on specified goals for social sectors; for fiscal balance (the average deficit was not to exceed 1 percent of GDP); and for tax administration efficiency. Further, it articulated a consensus that in order to improve both the quantity and quality of public expenditures, the government would need to launch major tax reforms.

In a country experiencing a resource windfall—such as Angola, Chad, or Azerbaijan—the problem may not be so much how to raise enough money to pay for government spending as how to make wise use of the newfound surplus. A fiscal pact can provide a direction in which to steer the national policy agenda, whether the priority is poverty reduction, reconstruction, or simply stable economic growth. It can set targets for fiscal performance, or lay out broader principles for policy making and public sector management.

A fiscal pact's success is measured less by whether specific targets are met than by how durable the debate is. Seven years after inaugurating the *Pacto Fiscal* in Guatemala, government, business, and civil society groups are still discussing it, and it continues to play an integral role in deliberations about where the country is headed. Some of the reforms may get watered down and rolled back over time—Guatemala's pact set a goal of raising the country's tax ratio to 12 percent of GDP by 2000, a date later pushed back to 2002 but never reached. Nonetheless, participatory discussion creates a space for government to negotiate with business, civil society organizations, and citizens in determining how best to use the country's resources.

The Poverty Reduction Strategy Paper (PRSP) process

Like the fiscal pact, the PRSP provides a means of subjecting economic policy decisions to more open and transparent public debate. Originally developed by the World Bank and International Monetary Fund (IMF) in 1999 as the operational basis for concessional lending and debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative,¹ PRSPs are prepared through a participatory process involving government, domestic

stakeholders, and external development partners, including the Bank and IMF. Updated every three years with year-by-year progress reports, a PRSP describes the macroeconomic, structural, and social policies and programs that a country will pursue to promote broad-based growth and reduce poverty, as well as external financing needs and the associated sources of financing. More than 60 low-income countries have or are developing PRSPs.²

The PRSP process offers civil society a prime opportunity for early involvement in setting priorities for government spending. Even in resource-rich countries that do not necessarily need debt relief, the PRSP process can give civil society groups a platform for interacting with policy makers and influencing how government spends and invests the country's resource wealth.

Critics of the PRSP approach argue that designing and carrying out a PRSP requires data collection, analysis, and monitoring efforts that go beyond the capabilities of the governments involved. Others argue that public participation in formulating PRSPs is seldom meaningful—that it is limited to select groups in or near the capital city, or that governments' idea of participation is informing the public of policy decisions already taken.³ Still, in many countries, civil society organizations are improving their skills, gaining legitimacy, and finding a stronger voice in the PRSP process. In some cases they are providing the analytic, advocacy, and monitoring capacity that government bodies otherwise lack.

Civil society budget initiatives

Since the 1990s, independent civil society budget groups have taken root in a range of countries, including some where conditions are less than

¹ The HIPC initiative grants debt relief on the condition that funds released are deployed in poverty reduction-related programs and that civil society is integrated into the drafting and monitoring of these efforts.

² PRSPs are made available on the IMF and World Bank websites by agreement with the member country. See <http://www.imf.org/external/np/prsp/prsp.asp> or <http://www.worldbank.org/prsp>.

³ McGee, Levene, and Hughes (2002) offer a critical assessment of civil society participation in the PRSP processes of several African countries.

hospitable to inclusive budgeting due to political turmoil, a repressive regime, widespread corruption, or simply a paucity of reliable data. Civil society budget work is especially important in resource bonanza countries, where public budgets are largely funded by revenues from extraction and sale of those resources.⁴ In Nigeria, for example, the Social and Economic Rights Action Center (SERAC) applies budget analysis to draw attention to the unmet needs of citizens, especially those affected by oil exploration in the Niger Delta. In Azerbaijan, the Public Finance Monitoring Center (PFMC), set up in 2003 with support from the Open Society Institute (OSI), scrutinizes government spending and recommends ways to improve the use of Azerbaijan's oil rents in meeting the country's medium- and longer-term social and economic priorities (see "Three Case Studies" in this issue).

A key aim of civil society budget work is to translate complex budget numbers into issues that people care about and to lay out policy choices in a way that the public, the media, and policy makers can understand and act on. Budget groups work at the national, regional, or local levels, or a combination of all three. Some groups focus on simplifying the budget for popular consumption, some educate policy makers to understand the links between budget and policy issues, and some train nongovernmental organizations (NGOs) and members of local communities to act as local budget "watchdogs." Others monitor the impact of the budget on the welfare of the poor or other interest groups, while still others lobby for greater transparency and accountability in the formulation and execution of government budgets.

The International Budget Project (IBP) of the Center on Budget and Policy Priorities is among the key international initiatives supporting the growth of civil society budget groups in less developed countries. The IBP provides a combination of financial, technical, and networking support to budget groups to strengthen budget analysis and to advocate for transparent budget systems that respond to citizens' needs.⁵ Both SERAC in Nigeria and the PFMC in Azerbaijan are part of the global network of budget groups with which IBP works.

Transparency

The IMF's fiscal transparency standards

In 2001, the IMF's Executive Board of Directors approved an updated *Fiscal Transparency Code of Good Practices* giving member states guidelines on reporting and publishing fiscal information. It covers the separation between private and government sectors, public availability of information, budget processes, and standards for fiscal data. Supplementing the code are a manual for fiscal transparency and a survey or questionnaire that governments or others can use to assess how well the code's standards are being met.

In 2005, the IMF complemented its guidelines on fiscal transparency with a *Guide on Resource Revenue Transparency*, which focuses on the placement of resource revenues in extra-budgetary funds, quasi-fiscal entities of resource-based national firms,⁶ resource revenue allocation systems that assign funds directly to subnational governments, and resource extraction-related debt obligations and payments. The IMF standards also stipulate that governments report all quasi-fiscal operations as part of their overall reporting on government finance statistics.

⁴ Shultz (2005) describes how civil society budget work can enhance citizens' awareness and participation in the design and implementation of social and economic programs in resource-rich countries.

⁵ See the IBP's website at <http://www.internationalbudget.org/>.

⁶ For instance, Sonangol, the national petroleum exploitation firm in Angola, makes payments on government debt directly to creditors, rather than via the public treasury system.

Extractive Industry Transparency Initiative (EITI)

A potentially key instrument for injecting transparency into natural resource revenue matters, the EITI was announced by Prime Minister Tony Blair in 2002 at the Johannesburg World Summit and is sponsored by the U.K. Department for International Development. The EITI has drafted guidelines for reporting all material oil, gas, and mining payments made by companies to governments and all material revenues received by governments from oil, gas, and mining. The EITI guidelines include methods of aggregating and analyzing the data by an independent third party, but do not specify who this “independent third party” might be.⁷

Despite making some progress, the EITI’s potential is still unrealized: it has not yet seen its protocols, draft guidelines, and other basic documents ratified, nor has it issued a quarterly report since 2004. Several companies, including the oil majors, have made comments on the EITI’s principles, but these have not been finalized and ratified.

Another resource for monitoring natural resource revenues and how they are spent is Schultz’s citizens’ guide (2005). It includes recommendations for civil society leaders on how best practices from budget work can be applied to the challenge of monitoring extractive industry revenues.

Publish What You Pay (PWYP) Initiative

The PWYP initiative was launched by a group including OSI, Save the Children UK, and Transparency International UK. It seeks to improve transparency in the natural resource extraction areas by coaxing companies, especially major oil companies, to publish data on how much they actually pay to host governments. The intent is to get these companies to publish all information on payments, including contract sign-

ings, revenue- and production-sharing arrangements, quasi-fiscal operations, royalties, and other similar transfers to governments. The PWYP initiative can enhance transparency of government accounts by providing a “mirror” source of data, where what the government publishes as revenues can be compared with what the companies claim to have paid.

In June 2006, OSI created the Revenue Watch Institute (RWI), which leads and coordinates efforts to increase transparency and accountability in resource-rich countries “by equipping citizens with the information, training, networks, and funding they need to become more effective monitors of government revenues and expenditures.”⁸ RWI publishes reports, guidebooks, and other tools for enhancing transparency. It also awards grants to organizations and individuals so they can advocate for improved transparency in their countries.⁹

Management tools

Resource funds

Resource funds have been set up in several resource-rich countries, with the goal of stabilizing foreign exchange earnings over time. When resource revenues rise, funds are placed into the fund, to be drawn upon when resource revenues drop. The idea of many resource funds is to remove revenues from the public finance system and secure them in a “lockbox” so that politicians and others cannot get at them. In many respects, they represent attempts to keep rents from the rent seekers.

Experience with resource funds is mixed, with Norway being the stellar example of how these should work, and Chad the latest example of how a well-designed fund can be subverted by an autocratic ruler (see the article on Chad in this issue). Davis et al. (2001) argue that natural

⁷ The guidelines are available at www2.dfid.gov.uk/pubs/files/eitidraftreportguidelines.pdf.

⁸ From OSI’s web site: http://www.soros.org/initiatives/cep/news/rwi_20060630.

⁹ <http://www.revenuewatch.org/>.

resource funds have had little discernible impact on the relationship between government expenditures and export earnings for oil and other natural resources. They claim that instead of being part of the solution to the fiscal challenges posed by large and fluctuating resource revenues, natural resource funds are often part of the problem. The authors suggest that rather than being distracted by potentially problematic funds, governments should address the problems head-on. They could do this by orienting fiscal policy to the long run—maintaining a sustainable non-oil fiscal balance, restraining spending when oil prices rise, transparently presenting the relevant issues to parliament and the public, and potentially hedging oil price risk using financial markets.

Macrofiscal planning


Whether countries opt to set up natural resource funds or opt to take the advice proffered by Davis et al., they will need to adopt a multiyear approach to their revenue and expenditure systems. This requires macrofiscal planning. The

tools for this task—called, almost interchangeably, medium-term macroeconomic frameworks (MTMF), medium-term fiscal frameworks (MTFF), medium-term budget frameworks (MTBF), and medium-term expenditure frameworks (MTEF)—all drill down through several layers of budgeting functions. These include forecasting the overall macroeconomy; setting a global budget perspective; developing multiyear revenue forecasts; and establishing budget ceilings for budgetary organizations, programs, and economic classifications of public expenditures. MTMFs and MTFFs generally start as a top-down approach, whereas the MTEFs and MTBFs wed the bottom-up approach with the top-down approach to multiyear budgeting, as illustrated in the figure below.

Summary

While we may not be able to change overall institutional arrangements in a country, at least in the short run, we do have tools to help alter the institutions that most directly affect how well resource bonanzas serve the long-run welfare of societies.

MACROFISCAL FRAMEWORKS

Level	Outputs	Top-Down	Tools
1. Macroeconomic framework	<ul style="list-style-type: none">• GDP growth rates• Exports, imports, balance of trade• National and domestic savings• Public and private investment• Sectoral value added by major industry• Aggregate expenditures		World Bank's RMSM-X financial programming model
2. Macrofiscal level	<ul style="list-style-type: none">• Revenue projections• Identification of financing and needs• Resource envelope• Government balances (current and overall)		Revenue projection model, debt management model, public finance integration model
3. Expenditure package by economic classification	<ul style="list-style-type: none">• Current and capital spending targets• Wage envelope• Interest obligations• Purchases of goods and services• Transfers		Public finance integration model
4. Expenditure package by sector and function	<ul style="list-style-type: none">• Nondiscretionary spending requirements• Discretionary functional spending		Sectoral development strategies
5. Expenditure package by budgetary unit	<ul style="list-style-type: none">• Program and project funding requests		Program budgeting, performance-based budgeting
Bottom-Up			

Applying these mechanisms would greatly benefit resource-rich countries where institutional capacity is weak, as well as countries where otherwise strong institutions have not yet adapted to managing a resource boom.

The tools discussed here are largely fiscal in focus—forged to strengthen fiscal management, improve fiscal transparency, and expand public participation in managing and allocating public finances. They by no means exhaust the options available to resource-rich countries. Nor will applying them obviate the need to invest in institution building. While institutions are not built overnight, ultimately they are the key to unlocking the full potential of a resource blessing.

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THE GOVERNANCE ROOT OF THE NATURAL RESOURCE CURSE

By Joseph Siegle

Eighty percent of all hydrocarbon-rich countries have autocratic governments. Nearly half of the world's 44 remaining autocracies, in turn, are rich in hydrocarbons or minerals. These patterns are not a coincidence. Control over revenue streams generated by natural resources strengthens the ability of autocratic leaders to feed patronage networks and perpetuate their hold on power, irrespective of living conditions for the majority of a population. And living standards in hydrocarbon-rich autocracies are consistently worse than in other countries at comparable income levels. Autocracy thus joins poverty, corruption, and instability as both a defining and a perpetuating feature of the natural resource curse.

Burgeoning global demand for hydrocarbons is deepening this dysfunctional nexus. As the treasuries of resource-rich states swell, autocratic leaders of these states have fewer incentives to forge compromises with domestic opponents and can behave more brazenly on the international scene. Thomas Friedman has dubbed this the First Law of Petropolitics: the price of oil and the pace of freedom tend to move in opposite directions in states dependent on oil riches (Friedman 2006). The leverage the international community can exert to engage autocratic leaders in a dialogue of reform, in turn, becomes increasingly limited. Paradoxically, since much of the current natural resource demand is driven by established democracies, they are inadvertently enabling this destructive dynamic—undermining their own security and diplomatic interests in the process.

The scope of the problem

Thirty-three countries are considered to be hydrocarbon-rich, according to the International Monetary Fund (IMF) (see table, next page).¹ An additional 16 qualify as mineral-rich. Two countries, Indonesia and Uzbekistan, meet the criteria for both lists. While often lumped together, the characteristics of the two categories of resource-rich countries are markedly different. One difference is geographic: 40 percent of hydrocarbon-endowed countries are in the Middle East (12), 20 percent are in Sub-Saharan Africa (7), and 15 percent are located in the former Soviet Union and in Latin America (5 each). In contrast, 10 of 18 mineral-rich countries are in Sub-Saharan Africa. Three are in East Asia, and two each in the former Soviet Union and Latin America. Only one mineral-rich country is in the Middle East.

Another difference involves governance. While 80 percent of all hydrocarbon-rich countries are autocracies, only a fifth of mineral-rich states fall into this category. Conversely, only 4 of the 33 hydrocarbon-rich countries qualify as democracies, while 7 of the 18 mineral-rich nations do. Stated differently, on a democracy scale of 0–10, the average hydrocarbon-rich country scores a zero.² The global average is 6. The median for mineral-rich countries is 6.5. These differences have enormous implications for how the revenues generated from the respective commodities are used.

¹ Countries are considered hydrocarbon- or mineral-rich if i) the average share of hydrocarbon or mineral fiscal revenues exceeds 25 percent of total fiscal revenues for 2000–2003 or ii) an average share of hydrocarbon or mineral export proceeds is greater than 25 percent during this period (IMF 2005). Hydrocarbons include coal, crude oil, and natural gas. Minerals are tin, gold, lead, zinc, iron, copper, nickel, silver, bauxite, and phosphate.

² In fact, hydrocarbons are a statistically significant negative predictor of the level of democracy, controlling for income.

RESOURCE-RICH COUNTRIES, 2000–2003³

Hydrocarbon-Rich Countries	Freedom House Rating (2–14)	Polity IV Rating (0–10)	Mineral-Rich Countries	Freedom House Rating (2–14)	Polity IV Rating (0–10)
Algeria	5	1	Botswana	12	9
Angola	5	1	Chile	14	9
Azerbaijan	5	0	Congo (DNC)	6	n/a
Bahrain	6	0	Ghana	13	7
Brunei	5	0	Guinea	5	1
Cameroon	4	1	Indonesia	9	8
Colombia	10	7	Jordan	7	2
Congo-Brazzaville	6	0	Kyrgyzstan	7	1
Ecuador	10	6	Liberia	8	n/a
Equatorial Guinea	3	0	Mauritania	6	0
Gabon	6	0	Mongolia	12	10
Indonesia	11	8	Namibia	12	6
Iran	4	4	Peru	11	9
Iraq	4	0	Papua New Guinea	10	10
Kazakhstan	5	0	Sierra Leone	9	5
Kuwait	7	0	South Africa	13	9
Libya	2	0	Uzbekistan	2	0
Mexico	12	8	Zambia	8	3
Nigeria	8	4			
Norway	14	10			
Oman	5	0			
Qatar	5	0			
Russia	5	6			
Saudi Arabia	3	0			
Sudan	2	0			
Syria	2	0			
Trinidad	11	10			
Turkmenistan	2	0			
UAE	4	0			
Uzbekistan	3	0			
Venezuela	8	6			
Vietnam	4	0			
Yemen	6	1			

Resource-rich categorizations compiled from International Monetary Fund, *Guide on Resource Revenue Transparency*, June 2005; democratic governance ratings from Freedom House and Polity IV.

Social well-being is another domain in which hydrocarbon- and mineral-rich countries diverge. Hydrocarbon-rich countries with per capita incomes between US\$1,000 and \$2,000 experience an average infant mortality rate of 33 (per 1,000 live births) vs. 28 for the income cohort as a whole, or 20 percent higher. At per capita incomes between \$2,000 and \$4,000, the rates are 39 and 29—a third more. Above \$4,000, infant mortality rates are three times as high—

17.5 to 6. Mineral-rich countries, in contrast, match the global infant mortality medians for each income cohort. Hydrocarbon-rich economies also lag on other social indices—such as healthcare spending, life expectancy, and education levels.

These differences reflect the skewed patterns of development in resource-rich countries. Resource revenues often accrue to a small segment of the population, making per capita income figures

³ The Polity IV governance index issues annual democracy scores for every country with a population over 500,000, based on the establishment of institutions for the selection of their political leaders, opportunities for popular participation in the political process, and checks on the chief executive (Gurr et al. 1990; Marshall and Jaggers 2000). Freedom House conducts an annual survey of political rights and civil liberties based on independent analysts' assessments of 25 questions for all countries in the world. This generates a 2–14 composite score. For our purposes, countries scoring in the top third of each scale, respectively, are considered democracies; those in the bottom third—that is, below 6 for Freedom House and below 3 for Polity IV—as autocracies. Scores listed in this table are for 2005.

highly misleading. Furthermore, since petroleum-based economies are notoriously volatile and subject to spikes of inflation, people already living at the margin in these societies are particularly vulnerable.

Hydrocarbon-rich countries also tend to be rife with corruption. The global median score on Transparency International's annual corruption perceptions index in 2006 is 3.75 (out of 10). For hydrocarbon-rich countries, the median is 2.35, or below the 25th percentile. It takes 48 days to start a business in a petroleum-rich country, on average, versus 42 elsewhere.⁴ Enforcing a contract typically takes some 2 months longer in hydrocarbon countries—407 days versus 360. Clearing customs takes 4 more days on average, or 12 versus 7.5.

Hydrocarbon-rich countries are also focal points of instability. To start with, they are twice as likely as others to experience intrastate conflict. Of the 22 internal conflicts ongoing in 2005, 8 were in natural resource-rich countries, and 7 of those 8 were in hydrocarbon-rich countries. The share of fuel exports in a country's total gross domestic product is statistically significant in predicting civil conflict since 1995, controlling for income and other factors. Five of the top 10 countries generating internally displaced persons (IDPs) are hydrocarbon-rich, even though they comprise less than a fifth of all countries in the world. (Two autocratically governed mineral-rich countries are also on this top 10 list.) In addition, the median IDP population for hydrocarbon-rich states is nearly twice the median for all countries with IDPs—470,000 vs. 265,000. Natural resource revenues, moreover, play a major factor in disseminating extremist ideologies (Berman 2003) and are a significant source of financing for a wide variety of illicit activities (Farah 2004).

The political logic of the oil curse

The pernicious effects of resource wealth are in fact a logical outcome of intrinsic political incentives (Bueno de Mesquita and Root 2002). By definition, autocracies retain power via means other than a popular, competitive, free and fair selection process. These leaders therefore lack incentives to respond to the interests of the general public, instead focusing on the constituencies that keep them in power, typically the military and the governing party hierarchy. Economic or social development is simply not a priority to most autocratic leaders—and may even be seen as a threat to their hold on power. On average, autocracies' developmental indicators fall 15–40 percent below those of democracies at comparable income levels (Halperin et al. 2004).

Access to lucrative streams of hydrocarbon revenues skews these patterns even further. This largely explains why the percentage of the world's oil revenues accruing to national oil companies has been increasing, even though the percentage of autocratic governments in the world has been declining. Currently, 72 percent of the world's proven oil reserves are held by national oil companies (NOCs). The 10 largest upstream oil companies in the world, measured by booked reserves, are all NOCs. ExxonMobil, the largest publicly traded international oil company in the world, is only the 12th largest upstream oil company in terms of booked reserves (Leverett and Noel 2006).

Since attractive wages are heavily slanted toward the extractive sector in resource-rich countries, competition among skilled workers for resource-sector jobs is fierce, and the incentive for ambitious young people to become zealous party loyalists strong. Since “the party” also typically controls access to educational, social, and cultural advancement, the power of resource-rich autocracies to reward allies and penalize critics is immense.

⁴ Regulatory delays have been shown to be a common opportunity for—and indicator of—corruption.

Political incentives are also shaped by the type of natural resource. When resources are geographically concentrated and difficult to exploit without sophisticated technology (“point source resources”), as is typical of hydrocarbon-rich resources, central governments can more easily control the resulting revenues. Oil-rich countries with point source resources tend to be more oppressive and engage in human rights abuses (Soysa 2006). When resources are scattered and can be exploited cheaply, a situation more typical of mineral-rich societies, the resulting revenues are more difficult for a single actor to control. Given the considerable “transaction costs” required to exert such control, the state has relatively stronger incentives to move out of the role of owner-operator of natural resource firms and into that of regulator and facilitator of private sector investment.

Unfortunately, unless legitimate regulated markets emerge around the exploitation of these geographically dispersed resources, these contexts become more vulnerable to instability as warlords compete to control the source of wealth, be it diamonds in Sierra Leone, coltan in the Democratic Republic of the Congo, timber in Cambodia, or, for that matter, drugs in Afghanistan and Colombia (Rubin 2005).

The inability of international actors to collectively agree on minimum human rights and transparency standards or labor, environment, and health safeguards as a condition for investing in natural resource-rich countries reinforces these harmful incentives. Extractive-sector firms that attempt to do so individually put themselves at a competitive disadvantage. Firms with fewer qualms about working in such contexts are quick to step in, creating a lowest common denominator effect from international influence.

A framework for remedying the oil curse

Consolidate democratic checks and balances in countries on path of reform

Mitigating the oil curse will require addressing the root governance problems that perpetuate its dysfunctions. The handful of natural resource-rich countries that have proven able to transform these riches into sustained development gains while avoiding the scourges of the resource curse have been democracies, including Botswana, Chile, Ghana, Mexico, Namibia, Norway, South Africa, and Trinidad and Tobago. This reality must be recognized up front when devising strategies to redress the natural resource curse.

Accordingly, countries with extensive natural resource holdings that have already started down a path of democratic reform, such as Nigeria, Indonesia, and Zambia, represent a crucial opportunity to exorcize the natural resource curse. In many ways, leaders in these societies have already made the hard decisions, accepting the principles of political competition, popular participation, and oversight of public officials. The task of building and consolidating these institutions, while far from assured, is easier than getting initial buy-in on democratic “rules of the game” from political elites accustomed to one-party rule. The more the democratic processes of transparency and public accountability take hold during these transitions, the greater the likelihood that the general population will benefit from resource wealth. Conversely, if the democratization effort is superficial, then the powerful, self-reinforcing logic of the oil curse will reassert itself.

The implication of this reality is that development agencies need to stop funding resource extraction capacity in autocracies. The understandable desire to help a nation tap its wealth to benefit the poor should be tempered by the terrible track record of autocracies’ natural resource revenue use. Experience shows that the hoped-for development benefits of such investments are simply

not likely to materialize. The case of the World Bank's investment in the Chad-Cameroon pipeline, discussed earlier in this volume, provides a perfect illustration. The assumption that "at least some good can result" has not been borne out. Rather, lending in such contexts can make matters worse by loosening the budget constraints these governments face—constraints that might otherwise encourage reforms.

Natural resource-rich countries just emerging from conflict, such as Liberia, Sierra Leone, the Democratic Republic of the Congo, or South Sudan, present another time-sensitive window of opportunity to reset institutional incentives so that these resources can be transformed from curse into blessing. These opportunities merit exceptional attention and effort. Establishing a transparent revenue-sharing formula early on in the postconflict process, preferably before these revenues start to flow to a new government, should be a top priority and, arguably, a condition of international funding.

Obviously, solidifying these democratic transitions will not be easy. Large volumes of natural resource revenues can erode weak democratic institutions (Collier and Hoeffler 2005). Nonetheless, the opportunity to alter incentives so that benefits are more widely shared is greater during periods of transition. Applying this same reasoning, salvaging a semblance of democratic institutions in resource-rich countries where these processes are being smothered, such as in Russia and Venezuela, is a priority defensive strategy meriting concerted international collaboration before autocratic norms harden.

The critical importance of *democratic institutions* should be underscored. Democracies' oversight mechanisms⁵ are what contributes most to the consistency and stability of their development

performance (Kaufmann et al. 2006; Olson 1997; Rodrik 1999). Democracies with relatively stronger systems of checks and balances are also less susceptible to the corrosive effect of natural resource revenues (Collier and Hoeffler 2005). Key among these checks and balances is a free press. Independent media play an indispensable role in advancing transparency, investigating corruption, holding leaders accountable for their policies, interjecting unwelcome but relevant information into the policy debate, sounding the alarm when living conditions start to decline, and increasing adherence to the rule of law, among other contributions (World Bank 2002; Siegle 2004). Investing in the professionalism, capacity, and financial sustainability of independent media, therefore, is a valuable means of remedying and guarding against the natural resource curse.

Strengthening institutional checks and balances should also be a focal point of intervention with autocratic governments. However, the scope may be limited to technical aspects of governance. Creating controls on corruption, expanding space for the private sector, and strengthening civil service capacity are sensible areas of reform that are generally less threatening than pushing for political rights and civil liberties. In the process, introducing the concept and practice of oversight would be a valuable step forward in mitigating the pernicious effects of the natural resource curse.

Alter the benefit-cost equation for autocrats

Autocratic leaders have powerful incentives to control natural resource revenues and use them to solidify their monopoly on power. Even so, several strategies are available for altering their benefit-cost calculations in favor of reform. The first option is to educate potential beneficiaries. In autocratic regimes, a significant majority of the population stands to gain from a more equitable, transparent, and productive use of natural

⁵ Such as a free press, an independent legislature and judiciary, a meritocratic civil service, an autonomous private sector, a vibrant civil society, and strong political parties.

resource revenues. Translating this diverse constituency into a more unified set of actors requires alliance-building across civic, private sector, traditional, and social development groups. Watchdog organizations have a particularly vital educational role to play in tracking the flow of natural resource revenues and allocations. Heightened awareness, in turn, raises expectations of government performance. At the least, authorities will be forced to work harder to maintain their exclusive arrangements.

The second option is to encourage reforms that are in autocratic leaders' own self-interest. While often perceived as impenetrable, an autocrat's hold on power is frequently tenuous. The average lifespan of autocratic regimes has been declining in recent decades (Przeworski et al. 2000).⁶ Autocracies' relatively high propensity for conflict similarly threatens their leaders' sustained access to these revenue flows. On top of this, the security of assets stored abroad is increasingly uncertain.⁷ Accordingly, it is in the interest of autocratic leaders to introduce policies that will enhance stability during their time in power. This includes enhancing their legitimacy in the eyes of the population and improving development performance. It is also in their interest to plan for a graceful exit. Among authoritarian generals in Latin America, for example, those that left power from a position of strength were much likelier to negotiate soft landings (Haggard and Kaufman 1995). Among other things, they were better able to retain control over their assets and property and were guaranteed protection from prosecution.

Third, given the volatility of autocratically governed economies, which are three times as likely as others to experience a sharp drop in economic output, domestically held assets are

also inherently vulnerable. This feature gives autocrats a personal financial incentive to create credible structures through which assets can be safely invested and yield reliable returns. Because of weak property rights and asset protections under autocratic regimes, the median level of foreign direct investment in low-income autocracies is roughly half that going to low-income democracies (Halperin et al. 2004). Creating a more stable investment environment, therefore, would attract more international investment and boost domestic returns. While creating a vibrant economy would require loosening the constraints that come with a patronage network, this "loss" for autocratic leaders would be offset by the broader opportunities to ensure stable gains from their personal fortunes. Such an environment, moreover, might also enable autocratic leaders to reliably enjoy their wealth once they leave power.

Fourth, autocratic leaders, especially those who have been in place for some time, may be considering their legacy. That motivation appears to be at least partly responsible for the decision by certain autocratic leaders with access to abundant natural revenues to create "social funds" outside of the entrenched line ministries for health, education, and similar services. Some autocrats may also be drawn by the prospect of becoming "fathers of democracy" in their countries. They reason that if they usher in competitive multiparty elections, an independent judiciary, and a free press before stepping down, they can assume the mantle of the visionary leader who led the nation into a new era without necessarily having to adhere to the requisite strictures themselves. To varying degrees, this is the path taken by the likes of Matthieu Kérékou in Benin, Pierre Buyoya in Burundi, Daniel arap Moi in Kenya, and Kenneth Kaunda in Zambia.

⁶ Autocrats with shorter time horizons ("roving bandits") are likely to be more rapacious and invest less in public goods than those who take an extended planning horizon and therefore benefit from establishing consistent rules ("stationary bandits") (Olson 2000).

⁷ Foreign governments are much more inclined to freeze the assets of unsavory leaders than in the past. Even renowned safe havens like Swiss banks with numbered accounts are now more likely to expose transfers of ill-gotten wealth.

Raise global natural resource accountability standards

International actors can influence the incentives confronting leaders of resource-rich countries by the expectations they help set. All leaders, regardless of how insulated they may seem, care about their international reputations. Hosni Mubarak of Egypt, Hu Jintao of China, and Nursultan Nazarbayev of Kazakhstan regularly extol the democratic nature of their governments. Dozens of other autocratic governments have approached Freedom House, Global Integrity, Transparency International, and other generators of governance indices to assess how they can improve their rankings—and some have initiated reforms to do just that. Unfavorable comparisons of Russia's governance with that of other petrostates, like Hugo Chávez's Venezuela and Nazarbayev's Kazakhstan, are reported to be highly irritating to Vladimir Putin. Autocratic leaders would prefer to be seen as meeting minimally accepted norms of legitimacy, human rights, and rule of law. Deviations from these norms, meanwhile, face increasingly tough international scrutiny, expanding the scope for the international community to elevate standards for transparency in the use of natural resource revenues.

One forum for such scrutiny is the Extractive Industry Transparency Initiative (EITI), discussed in the article by Gallagher and Rozner in this volume. A complementary standard-setting process would be to mandate that the IMF issue biennial "report cards" on all natural resource-rich countries, using its own handbook on sound practices for managing resource revenue as a guide (IMF 2005). Each country would be rated on how well it adheres to these practices. The report would then serve as a basis for dialogue between the government, internal watchdog groups, and international actors. It would also be a means by which comparisons between countries could be made and relative progress assessed.

Key to the effectiveness of these norm-setting initiatives are rewards and penalties for compli-

ance. Natural resource-rich countries that adopt reforms and adhere to global standards of transparency should qualify for higher levels of aid. That concept has shaped certain assistance policies, including those of the Millennium Challenge Account. Similar links should be made to private investment. The World Bank's Doing Business ratings capture some significant related criteria. Countries scoring higher on such ratings and the IMF report cards should be promoted as reliable targets of foreign investment by donor governments, international financial institutions, and investment rating agencies. In addition to solidifying the connection between transparent governance and expanded international investment, these endorsements can help investors identify relatively more accountable governments within what are often highly generalized perceptions of emerging markets.

Any enforcement mechanism would need to address firms and governments that actively attempt to circumvent transparency standards in natural resource-rich countries. For example, if Sudan refuses to participate in EITI or receives subpar scores for transparency on the IMF report cards, and Malaysian oil companies and the Chinese government continue to invest in the Sudanese oil sector, then penalties should also be imposed on the complicit actors. The first step would be to heighten awareness of the primary transgressors through a name-and-shame publicity campaign. Nongovernmental watchdog groups such as the Publish What You Pay coalition and Revenue Watch could credibly take on the role of publishing a monthly bulletin of the major firms and financial sponsors of unreformed natural resource-rich states. Firms included on the list would be barred from competing for any contracts in countries that have signed or are sponsoring EITI. Similarly, EITI partners would issue advisories to their business communities discouraging investment in countries that are financial supporters of unrehabilitated resource-cursed states. Moreover, state-owned extractive firms from noncompliant countries would be

barred from raising assets from financial institutions based in EITI-sponsor countries. These actions would give sharper teeth to transparency protocols and effectively signal that countries and firms underwriting the perpetuation of corrupt, counter-developmental, destabilizing rule will face concrete costs for their actions.

Finally, one of the most potent ways in which the international community can mitigate the natural resource curse is to curb its consumption of hydrocarbons. Doing so would decompress the leverage that autocratic governments gain from monopolizing the supply of these resources, as well as undercut the relative immunity to outside pressure conferred by their expanding streams of revenue. This, in turn, would alter the benefit-cost equation to reform for autocratic leaders, significantly increasing the advantages they would derive from engaging with the international community on more development-friendly practices. During the 1973–1974 oil crisis, Americans reduced their oil consumption by 6 percent in a period of five months. Similar sustained conservation efforts across the industrialized world would have a dramatic impact on prices, especially if supplemented by incentives to use and invest in alternative sources of energy.

The bottom line is that international actors have considerably more leverage in the short and medium term to address the oil curse and its many toxic ramifications than they realize. Doing so requires collective action. The savings from any one household may be insignificant. But in aggregate, concerted action has the potential to transform the geopolitical landscape.

Conclusion

The natural resource curse is a central cause of ongoing underdevelopment, corruption, and regional instability. With rising hydrocarbon prices and increasingly fierce global competition for energy supplies, the problem of the curse is likely

to become even more entrenched and burdensome. To redress this imbalance will require recognizing the autocratic roots of this curse and changing the incentives that leaders of resource-rich societies face. Helping natural resource-rich countries join the democratic path—by building accountable institutions, strengthening citizens' capacity for collective action, establishing global norms for transparent reporting of natural resource revenue, and cultivating more innovative scenarios for reform—can all play a role toward this end.

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AUTHORS

Richard Auty, Professor Emeritus of Economic Geography at Lancaster University, has advised many multi- and bilateral agencies on economic development issues. He previously taught at Dartmouth College and the University of Guyana; research interests include industrial policy and rent cycling theory. Recent publications include *Energy Wealth and Governance in the Caucasus and Central Asia* (Routledge), co-edited with I. de Soysa, and *Resource Abundance and Economic Development* (Oxford University Press).

Ulrich Ernst, DAI's former Chief Economist, currently advises the Ministry of Economic Development in Azerbaijan under DAI's Public Investment Policy Project and is studying the impact of regulations on value chain competitiveness in Brazil. With particular expertise in competitiveness, structural reform, privatization, and economic and financial modeling, he has worked in many countries in the Middle East, Africa, Asia, Latin America, and Eastern Europe.

Mark Gallagher, a DAI staff member and economist, is an expert in public finance. Currently heading USAID's worldwide Fiscal Reform and Economic Governance program, he provides technical leadership to USAID and advisory assistance to client governments around the world. He holds a Ph.D. in economics and has taught university courses in the United States and abroad.

Meral Karan, an Associate Development Specialist at DAI, provides technical support to its Azerbaijan Public Investment Policy Project. Ms. Karan previously worked with the Kenan Institute for Private Enterprise and the Synergos Institute. She holds a Master of Public Policy degree from Georgetown University.

Brandon Lundberg is a Junior Economist in DAI's Economics and Trade Practice. Currently, he serves as an Implementation Advisor on the USAID-funded Angola Fiscal Reform Project, where he works closely with the Fiscal Programming Unit of the Ministry of Finance.

Steve Rozner is Deputy Chief of Party for USAID's Fiscal Reform and Economic Governance project and a member of DAI's Economics and Trade Practice. He has worked on projects supporting public finance reform in the Balkans, Asia, and Africa.

Joseph Siegle is Senior Advisor for Democratic Governance at DAI. An expert on the political economy of development, he has worked in more than 25 developing countries and has written extensively on the economic and security implications of democratization. He is co-author of *The Democracy Advantage: How Democracies Promote Prosperity and Peace* (Routledge).

David Tardif-Douglin is a development economist with DAI's Economics, Business, and Finance Group. He has worked on general economic and agriculture policy in Africa and Southeast Asia, and he is particularly interested in the role of good governance in the public sector and competition in the private sector as the twin pillars for growth and development in Africa.

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