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Rethinking the Resource Curse

Ownership Structure and Institutions in Mineral-Rich States

Petro-states share a similar path-dependent history and structuration of choice ... the exploitation of petroleum produced a similarity in property rights, tax structures, vested interests, economic models, and thus frameworks for decision-making across different governments and regime types.

– Terry Lynn Karl (1997, 227)

For the quality of our understanding of current problems depends largely on the broadness of our frame of reference.

– Alexander Gershenkron (1962, 6)

The negative consequences of mineral abundance in developing countries – poor economic performance, unbalanced growth, impoverished populations, weak states, and authoritarian regimes – are widely accepted among highly respected academics, international nongovernmental organizations (INGOs), international financial institutions (IFIs), and even representatives of the popular media. This is particularly true of petroleum. Indeed, some have gone so far as to declare that the resource curse is “a reasonably solid fact” (Sachs and Warner 2001, 837), while others have proclaimed that there is a “Law of Petropolitics” whereby “[t]he price of oil and the pace of freedom always move in opposite directions in oil-rich states” (Friedman 2006, 31). Nigeria’s experience with petroleum provides a vivid illustration of this so-called “curse” of wealth. Although its government has accrued $350 billion in oil revenues since independence in 1960, between 1970 and 2000 its economy shrunk dramatically, its poverty rate “increased from close to 36 percent to just under 70 percent” (Sala-i-Martin and Subramanian 2003, 3) and its political regime “has become increasingly centralized and oppressive” (Jensen and Wantchekon 2004, 819).

1 Petroleum and oil are often used interchangeably to connote hydrocarbons more generally that can be separated into various forms of energy, including natural gas. Throughout this book, we conform to this common practice.
But few seem to agree as to exactly why mineral wealth allegedly produces such negative outcomes. The most prominent explanations for economic stagnation focus on the direct effect that export windfalls have on the real exchange rate. In short, by shifting production inputs to the booming mineral sector and nontradable sector, they reduce the competitiveness of the nonbooming export sectors and hence precipitate their collapse (i.e., “Dutch Disease”) (see Auty 2001b). Others stress the indirect effects that export windfalls have on retarded economic growth through promoting corruption and indebtedness while discouraging productive long-term investment (see Gylfason 2001, Leite and Weidmann 1999). On the political side, the prevalence of authoritarian regimes in mineral-rich states, for example, is largely attributed to the effect that centralized access to export revenue, particularly during a boom, has on regime type by increasing the government’s fiscal independence and consequently decreasing both the ability and willingness of the general population to hold its leaders accountable (see Ross 2001a, Wantchekon 1999).

The diversity of explanations posited in the vast literature on the resource curse, however, masks the fact that underlying all of them are institutions. More precisely, these seemingly disparate explanations share the recognition, either implicit or explicit, that weak (or nonexistent) institutions are the key intervening variable between mineral abundance and the negative economic and political outcomes associated with this wealth. In short, mineral-rich countries are “cursed” because they do not possess the “right” set of institutions. This is because either such institutions did not exist prior to an export boom, and state elites have no incentive to build them once they start to reap the benefits of their wealth (see Acemoglu et al. 2002, Karl 1997, Shafer 1994), or if such institutions did exist before an export boom, state elites would have a strong incentive to dismantle or undermine them (see Chaudhry 1989, Karl 1997, Ross 2001c). Even those scholars who distinguish among types of natural resource wealth and their effects argue that weak institutions are endogenous to mineral wealth. Isham et al. (2003), for example, conclude that because weak institutions are inevitable in countries rich in “point source” resources (i.e., fuels, minerals, and plantation-based crops), they cannot escape terms of trade shocks and thus are doomed to suffer from poor economic growth (see also Bulte et al. 2003). In sum, weak institutions are both a direct consequence of mineral wealth and the primary reason that this wealth inevitably becomes a curse.

That the weakness (or absence) of institutions is widely viewed as the underlying cause of the resource curse in the developing world is most readily apparent in how this literature deals with the exceptions – that is, those few developing countries that have managed to escape the resource curse, such...

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1 Sachs and Warner (1995) is a notable exception.
2 For a concurring view of the resource curse literature, see Brunnschweiler and Bulte 2008, 249.
Rethinking the Resource Curse

as Botswana, Chile, and Malaysia. Consider the case of Botswana. In contrast to both its mineral-rich and mineral-poor neighbors, Botswana has experienced rapid and sustained growth, moving from the twenty-fifth poorest country in 1966 to an upper-middle income country within 30 years (Sarraf and Jiwanji 2001). As is well recognized, the most immediate cause of this economic success story is Botswana’s sound macroeconomic policies. It has mitigated the effects of Dutch Disease by managing its exchange rate policy through the accumulation of foreign reserves and has avoided both wasteful spending and indebtedness by running budget surpluses that were set aside for stability spending during periods of busts. At the same time, it has invested wisely in infrastructure, education, and health. But the success of these policies is widely attributed to strong political and economic institutions (see Harvey and Lewis 1980), including an insulated and autonomous technocracy committed to long-term developmental goals (see Eifert et al. 2003, Gelb and Associates 1988, Stevens 2003), a legislature that exercises control over the budgetary process (Sarraf and Jiwanji 2001, 12), and “institutions of private property” (Acemoglu et al. 2003, 84).

Recent critics of the established resource curse thesis also cite strong political and economic institutions as the main reason why some mineral-rich countries experience positive developmental outcomes. They argue, for example, that resource dependence can stimulate economic growth when governments have both the will and capacity to make the right investment choices – for example, in education and the development of new technologies (Wright and Czelusta 2004) – or promoting economic diversification (Lederman and Maloney 2003). Their point of departure from the conventional literature on the resource curse, then, is not their emphasis on the role of institutions (as they often suggest), but their treatment of institutions as exogenous, rather than endogenous, to mineral wealth (see Mehlum et al. 2006, Robinson et al. 2006). Nonetheless, both proponents of the resource curse and its critics treat institutions in mineral-rich states as stagnant – in other words, good developmental outcomes will only result in mineral-rich states that already possess and manage to sustain good institutions. Consider again the case of Botswana. In this view, its exceptionalism is a product of its colonial past, which bequeathed many of the aforementioned strong political and economic institutions that have allowed it to succeed where others have failed.

Proponents of the resource curse thesis and its critics also agree that the crucial institutions mineral-rich countries typically lack are essentially of two types: (1) those that constrain the ruling elite or chief executive from relying exclusively on the mineral sector and engaging in wasteful spending; and (2) those that enable the government to make sound investment decisions and recover from economic crises. Foremost among these are strong fiscal regimes,

* Studies that seek to explain the success of Norway also focus on the strength of its institutions in contrast to mineral-rich states in the developing world (see Sala-i-Martin and Subramanian 2003).
which encompass institutions that regulate the state’s ability to both tax and spend. The widespread assumption is that all mineral-rich states will become rentier or distributive states whereby revenue is generated exclusively from natural resource export rents and then distributed widely, albeit unequally, across the population (see Vandewalle 1998). Thus they are incapable of building or sustaining fiscal regimes that contribute to good macroeconomic policies, rational public spending decisions, and the government’s ability to respond effectively to a commodity shock (see Isham et al. 2003). Such strong fiscal regimes would include, for example, legal limits on government spending and foreign borrowing (see Manzano and Rigobon 2001), stabilization funds into which excess revenue is placed during booms to make up for budgetary shortfalls during busts (see Katz et al. 2004, Mikesell 1997), or savings funds aimed at determining an “optimal share” of mineral rents consumed by each generation (see Matsen and Torvik 2002), and a broad-based tax regime that provides an alternative source of government revenue so as to reduce budgetary reliance on mineral exports and facilitate economic recovery during a bust (see Chaudhry 1989, Karl 1997).

Yet despite this consensus, our understanding of the relationship between mineral wealth and institutions remains limited. Are weak institutions endogenous to mineral wealth? In particular, are weak fiscal regimes, and thus the negative outcomes they are presumed to generate, inevitable in mineral-rich states? If they are not endogenous, what then accounts for the prevalence of weak fiscal regimes in mineral-rich states? And finally, if they are exogenous, under what conditions are mineral-rich states that inherit weak fiscal regimes likely to develop strong ones?

This book seeks to advance the literature on the resource curse by utilizing the experience of the Soviet successor states to address each of these seminal questions. When the Soviet Union collapsed in 1991, it generated not only fifteen newly independent states but also a new set of petroleum-rich developing countries – Azerbaijan, Kazakhstan, the Russian Federation, Turkmenistan, and Uzbekistan. Alongside their petroleum-poor counterparts, these five former Soviet republics inherited universally weak institutions – most notably, fiscal regimes. Their experience suggests not only that weak institutions are not endogenous to mineral wealth but also that even those mineral-rich states that do not inherit strong institutions can nonetheless build them. Most importantly, the divergent development of fiscal regimes in each of these states from the early 1990s through 2005 also provides ample support for our contention that institutions in mineral-rich states are not a product of their wealth per se, but rather ownership structure – that is, who owns and controls the mineral sector. As we elaborate below, largely due to its focus on a single time period during which mineral wealth was predominantly state-owned (i.e., the late 1960s to early 1990s), the resource curse literature has ignored this possibility. Yet, a broader view of the empirical evidence suggests otherwise. In the Soviet successor states and throughout the developing world, there is actually significant variation in ownership structure over petroleum wealth throughout the twentieth century.
A BROADER VIEW: THE “CURSE” OF OWNERSHIP, NOT WEALTH

Our central claim is that mineral-rich states are “cursed” not by their wealth but rather by the structure of ownership they choose to manage their mineral wealth. This represents a significant departure from the conventional resource curse literature, which has largely ignored the potential impact of ownership structure over mineral reserves because it assumes that this does not vary across resource-rich states in the developing world and often conflates state ownership with control. Two separate, yet reinforcing, logics underlie this consensus.

The first concerns the overwhelming constraints that the very nature of the mineral sector imposes on leaders of capital-poor countries. Because extraction and development are capital-intensive, leaders must secure foreign direct investment or loans from international banks, which requires state ownership because only the state can satisfactorily guarantee the investment climate and loan repayment (see Karl 1997). At the same time, the need for significant amounts of capital creates greater barriers to entry, such that ownership will necessarily be concentrated (see Auty 2001). Add to this mix the tendency for mineral reserves themselves to be clustered within a single region of the country and for this sector to dominate the country’s economy, and the recipe for state ownership and centralized control is complete (see Shafer 1994).

Perhaps somewhat ironically, the second rationale stems from the prevalent, albeit often implicit, assumption that leaders in developing countries operate under very few, if any, domestic constraints. Given the enormous rents associated with the export of mineral wealth, predatory state leaders will undoubtedly want to capture these rents for themselves (see Beblawi and Luciani 1987, Mahdavy 1970, Vandewalle 1998). The strong presumption, moreover, is that the desire for state ownership and control is easily translated into the ability to do so – either because these leaders do not have to confront any sociopolitical forces that are strong enough to oppose them (see Klapp 1987, Robinson et al. 2006) or because there is no “distinction between public service and private interest in these countries” (Beblawi 1987, 53). Indeed, that mineral rents necessarily accrue directly to the central government is the central premise of an entire body of literature on the “rentier state” within and outside of the Middle East (see Karl 1997, Mahdavy 1970, Yates 1996).

The overwhelming presumption of state ownership is both fostered and reinforced by the fact that most of the resource curse literature focuses on the same historical period – that is, roughly from the late 1960s to the early 1990s. The attractiveness of this period is understandable considering the conventional views of the relationship between resource endowments, economic growth, and state building at the height of post-colonialism. Scholars sought to explain the

5 By definition, a rentier state is one in which “the government is the principal recipient of the external rent in the economy” (Beblawi 1987, 52).
apparent paradox that, contrary to the expectations of developmental economists in the 1950s and 1960s, the economies of resource-rich countries in the less developed countries (LDCs) were growing more slowly than resource-poor ones and that, despite a sustained oil boom in the 1970s, mineral-rich countries in the developing world were experiencing economic decline and political turmoil in the 1980s and 1990s (see Auty 1993, Gelb and Associates 1988, Karl 1997). Yet it provides a skewed picture of the empirical reality because this is also the time period during which the vast majority of mineral-rich countries did, in fact, exercise state ownership over their mineral reserves.

Thus, with few exceptions, ownership structure has heretofore been viewed as a constant rather than a variable. And yet the empirical reality is that ownership structures vary greatly both within and across mineral-rich states over time. If one takes a broader and more nuanced view, it becomes clear – at least regarding petroleum-rich states – not only that state ownership is not inevitable, but also that it is accompanied by varying degrees of state control. Figure 1.1 provides such a view. It is based on our own analysis of ownership structure in petroleum-rich states throughout the developing world over the course of the twentieth century, in which we disaggregate ownership and control into four possible resource development strategies.

1. **State ownership with control (S₁).** The state must own the rights to develop the majority of petroleum deposits and hold the majority of shares (> 50 percent) in the petroleum sector. Foreign involvement in the petroleum sector is limited either to participating in contracts that restrict their managerial and operational control, such as carried interest or joint ventures (JVs), or to operating as service subcontractors.

2. **State ownership without control (S₂).** The state must own the rights to develop the majority of petroleum deposits and hold the majority of shares (> 50 percent) in the petroleum sector. Foreign investors are allowed to participate through more permissive contracts, such as production-sharing agreements (PSAs), which grant them significant managerial and operational control.

3. **Private domestic ownership (P₁).** Private domestic companies can own the rights to develop the majority of petroleum deposits and hold the majority of shares (> 50 percent) in the petroleum sector.

4. **Private foreign ownership (P₂).** Private foreign companies can own the rights to develop the majority of petroleum deposits and hold the majority of shares (> 50 percent) in the petroleum sector, usually via concessionary contracts.

As these four ideal types should make clear, our decision rule for classifying a petroleum sector as under state ownership versus private ownership is whether legislation (broadly construed) mandates that the state own rights to

* In other words, this can include any promulgation by an official organ of the state, such as a presidential decree.
Figure 1.1. Variation in Ownership Structure, 1900–2005.

S1 = State ownership with control
S2 = State ownership without control
P1 = Private domestic ownership
P2 = Private foreign ownership
develop the majority of petroleum deposits and hold the majority of shares in the petroleum sector, and classifying a state as “with control” versus “without control” depends on whether legislation limits the form of foreign oil companies’ participation (that is, the types of contracts they can sign). Relying on legislation has two important implications for how we classify a change in ownership structure that deserve special emphasis here. First, because there is often a time lag between the adoption of ownership structure and its full implementation, we are more concerned with a legislative change that signals intent than actual practice. Second, the adoption of a new ownership structure occurs only when there is a legislative change in the rules governing ownership and control. When the private oil companies that initially owned the majority of shares sell off some (or even all) of their shares to other private oil companies, for example, this is a continuation rather than an abrogation of private ownership. Similarly, altering the terms of an existing contract with foreign investors is not sufficient to constitute a change in the degree of state control.

The neglect of ownership structure as a potential variable has deterred scholars from making explicit connections between the structure of ownership and the negative political and economic outcomes that they attribute to mineral wealth. Yet, as this book demonstrates, which form of ownership structure a country adopts is arguably the first and the most important choice that mineral-rich states make because it shapes incentives for subsequent institution building. In particular, it affects the type of fiscal regime that emerges and hence the prospects for building state capacity and achieving long-term economic growth.

OWNERSHIP STRUCTURE AND FISCAL REGIMES

Why should we expect ownership structure to influence the types of institutions that emerge in mineral-rich states? In particular, why should who owns and controls the mineral sector affect the emergence of fiscal regimes that vary in terms of their ability to constrain and enable the state? Our theory rests on three building blocks.

Ownership Structure Is a Set of Social Relations

First, we conceptualize ownership as a set of social relations among multiple claimants to the benefits derived from the exploitation of the asset in the developing world: Algeria, Angola, Argentina, Azerbaijan, Bahrain, Bolivia, Brazil, Brunei, Cameroon, Chad, Chile, China, Colombia, Republic of Congo, East Timor, Ecuador, Egypt, Equatorial Guinea, Gabon, Guatemala, Imperial Russia, India, Indonesia, Iran, Iraq, Kazakhstan, Kuwait, Libya, Malaysia, Mexico, Nigeria, North Yemen, Oman, Peru, Qatar, Romania, the Russian Federation, Saudi Arabia, South Yemen, the Soviet Union, Sudan, Syria, Trinidad and Tobago, Tunisia, Turkmenistan, the United Arab Emirates, Uzbekistan, Venezuela, Vietnam, and Yemen. To code each country’s ownership structure, we rely on their respective constitutions, laws and regulations governing the mineral sector, and (where available) petroleum sector contracts with foreign oil companies.

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7 Based on the authors’ codings for each of the 50 petroleum-rich countries in the developing world: Algeria, Angola, Argentina, Azerbaijan, Bahrain, Bolivia, Brazil, Brunei, Cameroon, Chad, Chile, China, Colombia, Republic of Congo, East Timor, Ecuador, Egypt, Equatorial Guinea, Gabon, Guatemala, Imperial Russia, India, Indonesia, Iran, Iraq, Kazakhstan, Kuwait, Libya, Malaysia, Mexico, Nigeria, North Yemen, Oman, Peru, Qatar, Romania, the Russian Federation, Saudi Arabia, South Yemen, the Soviet Union, Sudan, Syria, Trinidad and Tobago, Tunisia, Turkmenistan, the United Arab Emirates, Uzbekistan, Venezuela, Vietnam, and Yemen. To code each country’s ownership structure, we rely on their respective constitutions, laws and regulations governing the mineral sector, and (where available) petroleum sector contracts with foreign oil companies.
question. As others have long recognized, whether it is public, private, foreign, or domestic, ownership is, above all, a form of exclusion (see Demsetz 1967, Umbeck 1981). Yet precisely because it confers upon an individual, group, or entity the sole right to exploit – and thereby to have direct access to the proceeds from – an asset to which society assigns worth, it is rarely an absolute one (see Furubotn and Pejovich 1972, 1139). Rather there will always be multiple claimants to the benefits derived from the exploitation of the asset in question. Those who enjoy ownership rights, moreover, cannot easily dismiss these claims because whether their rights persist is conditional upon some level of societal acceptance (see Ostrom and Schlager 1996, 130). As both the primary guarantor of property rights and responsible for protecting the public interest, the modern state has become the key to ensuring both that owners “respect” the claims of nonowners and that nonowners perform their “duty” to observe the owners’ property rights (see Bromley 2006, 56). Although it has done so in a variety of ways throughout history, in the twentieth century the state has primarily performed this role either by taxing and regulating the private sector (see Alt 1983) or by asserting public ownership (see Chaudhry 1993). Thus, like Daniel Bromley (1989, 202), we view property rights as a triadic set of “social relations among members of a collectivity with respect to an array of items of social worth [that] link not merely a person to an object, but rather a person to an object against other persons.” And yet, building on his insight, we argue that the triad of relations that property rights create necessarily includes the state and thus must also have a political content. This is particularly true when it comes to mineral resources, such as petroleum, that are not only widely perceived as having an extremely high economic value but also portrayed as constituting the nation’s wealth and hence property (see Wenar 2007). No matter who has the sole right to exploit and derive direct benefit from these resources, those who are excluded from ownership will thus seek to gain access to these benefits indirectly – albeit through different means. Chief among these claimants is the state, which has increasingly assumed the role of the protector of the public interest vis-à-vis the exploitation of mineral resources even when it does not own these resources outright. While not wholly a twentieth-century notion, the view that a country’s mineral wealth ultimately belongs to the people who inhabit it was elevated to the international level during the postcolonial era when it was codified by the United Nations, for example, in the 1962 UN Resolution on Permanent Sovereignty over Natural Resources and then enshrined in the constitutions of newly independent mineral-rich countries in the developing world in the 1960s and 1970s (see Mommer 2002). The continued dominance of this sentiment is evident in Article 108 of the 2005 Iraqi constitution, which states that “[o]il and gas are the ownership of all the people of Iraq in all the regions and governorates.”

8 As James Alt (1983, 184) adeptly summarizes: “a tax is both a claim to ownership and an extraction of value.”
9 The state also plays an important role in enforcing communal ownership (see Ostrom 1990).