

*Rethinking the Resource Curse:
Ownership Structure and Institutional Capacity*

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INTRODUCTION

The proposition that abundant mineral resources (e.g., oil, gas, diamonds, copper, and gold) are more often a curse than a blessing, particularly for the less developed countries (LDCs), is by now so familiar that it has become doctrine. There are countless studies documenting the correlation between resource wealth and a series of negative economic and political outcomes, including poor economic performance, unbalanced growth, weakly institutionalized states, and authoritarian regimes, across the developing world. The “resource curse” literature, however, shares three major shortcomings that call into question the conventional wisdom that this correlation amounts to causation.

First, the prevailing assumption across this literature is that mineral wealth is always and necessarily state-owned and centrally controlled (e.g. Belawi and Luciani 1987, Karl 1997, Auty 2001). To some extent, this reflects pervasive notions about the nature of mineral resources and the behavior of political leaders in developing countries. Because mineral reserves are capital-intensive and concentrated, only the state could amass the huge capital investments required to develop them -- whether through foreign borrowing or foreign direct investment. Unconstrained by domestic pressure and prone to rent-seeking, these leaders would opt to monopolize and/or centralize the extraction of these resources primarily for export. This assumption became dominant and has remained unquestioned, however, largely owing to a selection bias. The bulk of the “resource curse” literature draws its empirical data from the same time period -- roughly, the late 1960s to the early 1990s -- during which state ownership over the exploration and production of mineral reserves is a common feature across resource-rich states (e.g. Onoh 1983, Gelb and Associates 1988, Khan 1994, Sachs and Warner 1995, Karl 1997, Vandewalle 1998, Ascher 1999, Wantchekon 1999, Ross 2001a, Robinson, Torvik, and Verdier 2002).¹

Second, the literature either fails to specify the causal mechanisms that link resource wealth to the aforementioned negative economic and political outcomes, or assumes that these links exist rather than empirically verifying them. For example, some studies assume that resource wealth automatically turns state leaders into rigid and myopic decision-makers, who are thus unable (or perhaps, unwilling) to invest in building the institutions that promote state capacity and long-term economic growth (e.g. Karl 1997, Mahdavi 1970, Mitra 1994, Shafer 1994). Others assume that because leaders in resource rich states can rely exclusively on natural resource trade, and thus, on an external source to generate revenue, they lack an incentive to develop a stable tax regime and reliable taxation system to generate income from domestic sources (e.g. Beblawi and Luciani 1987, Karl 1997). This, in turn, is believed to contribute to both the emergence of authoritarian regimes and poor economic performance.

The focus on the empirical correlation between mineral wealth and these negative outcomes, moreover, has led scholars to overlook another important empirical correlation that may point to the *real* cause behind what has been mistakenly diagnosed as the “resource curse.” Because the majority of these studies focus on a time period after which most developing countries had already nationalized their mineral reserves, it may be state ownership rather than the mere

¹ Note that this is the case whether that data is based on single country studies, or large-n cross-national studies. If one considers that “wealth” in the 1500s amounted to resource abundance, then an exception to this rule is Acemoglu, Jackson, and Robinson, 2003.

abundance of resources and the influx of external rents generated from these resources during boom periods that “curses” resource-rich countries. Nonetheless, the bulk of this literature does not endeavor to make explicit connections between the structure of ownership and the negative political and economic outcomes to which it attributes mineral wealth. A large part of the reason for this is the widespread acceptance that state ownership is a constant rather than a variable.

A final shortcoming of this literature is that it is deterministic, and thus, does not offer a potential path out of the resource curse for developing countries. Rather, the conventional wisdom is that unless they are fully developed states and full-fledged democracies when they discover their resources -- that is, unless they are Norway -- resource-rich states are condemned to poor economic growth, weak institutions, and authoritarian regimes.²

This paper is based on a larger collaborative research project that seeks to address these shortcomings: first, by documenting and offering an explanation for the empirical variation in development strategies across mineral-rich states throughout the 20th century, second, by specifying the causal mechanisms between the structure of ownership and institutional outcomes, and third, by identifying an alternative path whereby resource-rich states can escape the alleged “curse” of their wealth.

In sum, we argue that the key to understanding why resource-rich states share so many negative attributes is not their mineral wealth per se, but rather, the structure of ownership over these resources -- specifically, whether the proceeds from resource extraction and export are concentrated or dispersed. When the proceeds are highly concentrated within the state apparatus, the state is the direct beneficiary of its resource abundance. Actors within the state, therefore, have greater discretionary power not only over resource extraction and export but also over the utilization and distribution of the proceeds from resource extraction and export. As a result, state actors have both a greater incentive and opportunity to strip assets and sell them abroad in the short-term rather than to invest in long-term economic growth, to engage in corruption, and, most importantly, to neglect institution building. Conversely, the dispersion of proceeds through privatization to domestic actors generates new economic interests outside the state apparatus who benefit directly from the development and export of natural resources. These private actors have both a vested interest in securing their property rights and the means to bring state actors to the bargaining table. At the same time, because the state has less control over how these resources are extracted and utilized, it is more likely to invest in institution-building, especially to develop mechanisms for extracting revenue from private owners, and to generate other sources of revenue outside its natural resource sector. Thus, privatization to domestic actors offers an alternative path out of the “resource curse” because it creates an incentive for both state and non-state actors to bargain over and eventually establish the formal rules of the game.

But why, then, is this form of privatization so rare? Explaining why countries choose mineral development strategies that either concentrate or disperse ownership in the first place is not only solving an important puzzle in its own right, but also the key to understanding why the structure of ownership matters. The conventional wisdom emphasizes the role of international factors, such as global pressures for policy convergence and the need to attract foreign capital. While this

² This is because only such states are presumed capable of establishing institutional constraints, such as an oil stabilization fund, on otherwise predatory and myopic leaders.

is consistent with the pattern of variation in the structure of ownership across time and space that we have documented (see Figure 1 below), we offer an alternative explanation based on domestic factors that is also supported by our preliminary data.³ In sum, we argue that the interaction between two key variables -- the availability of alternative sources of export revenue and the level of political contestation -- is a reliable predictor of the strategies that state leaders in developing countries choose to develop their mineral wealth. This suggests that privatization to domestic actors is such a rare strategy because the domestic conditions that drive states to adopt this strategy -- specifically, a high degree of access to alternative export revenue and a high level of political contestation -- have also been rare in resource-rich countries. It also suggests, moreover, that we may be too quick to attribute global trends to international factors, particularly policy convergence. Underlying these trends may be the coincidence of domestic processes.

Thus, our argument consists of two separate, but integrally related, parts. The first part concerns the impact that domestic pressures have on mineral-rich states' choice of ownership structure, or the development strategy they adopt toward their mineral sector. The second part concerns the effect that ownership structure has on the nature of the relationship between the state and the mineral sector (or business-state relations), and consequently, institutional outcomes.

Our findings indicate that the focus to date on the paradox that resource wealth is a curse rather than a blessing may be misplaced. The widespread presumption motivating the proliferation of the "resource curse" literature in the 1980s and 1990s was that the failure of resource-rich countries to develop more quickly than non-resource rich countries is paradoxical. Many developmental economists in the 1950s and 60s, for example, argued that resource abundance would serve to fuel rapid economic growth by providing these countries with the necessary capital to industrialize their economies and diversify their exports (e.g. Viner 1952, Lewis 1955, Hirschman 1958, Spengler 1960, Baldwin 1966). However, if their failure to achieve rapid economic growth is linked to the common tendency among developing countries throughout this period to adopt a dominant role for the state in the economy -- the pathologies of which are often exaggerated for resource-rich states -- then this may not be so paradoxical afterall.

Instead, we shift the focus to a new and more appropriate paradox -- that the concentration of wealth impoverishes the state whereas the dispersion of wealth enriches the state.

THE LONG(ER) VIEW

The "resource curse" literature has largely ignored questions concerning the structure of ownership over mineral reserves because it assumes that this does not vary across resource-rich states in the developing world (e.g. Beblawi and Luciani 1987, Shafer 1994, Karl 1997, Ascher 1999, Auty 2001, Ross 2001a) and often conflates state ownership with control (e.g. Klapp 1987, Ascher 1999, Robinson, Torvik, and Verdier 2002).

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

³ At the time of writing, it included only a subset (17) of petroleum-rich states in the developing world. Nonetheless, our findings are compelling since this sample includes at least one country from every region.

poor countries. Because extraction and development is 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 (e.g. 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 (e.g. Auty 2001, chapters 1 and 6). 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 (e.g. Shafer 1994).

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 (e.g. Mahdavi 1970, Beblawi and Luciani 1987, Karl 1997, Vandewalle 1998, Auty 2001, chapter 8). 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 socio-political forces that are strong enough to oppose them (e.g. Klapp 1987, Robinson, Torvik, and Verdier 2002)⁴ or because there is no "distinction between public service and private interest in these countries" (Beblawi in Beblawi and Luciani 1987, 55).⁵ Indeed, that mineral rents necessarily accrue directly to the central government in developing countries is the central premise of an entire body of literature on the "rentier state" within and outside of the Middle East (e.g. Mahdavi 1970, Beblawi and Luciani 1987, Yates 1996, Karl 1997).⁶

Furthermore, this consensus 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 apparent paradox that, contrary to the expectations of developmental economists in the 1950s and 1960s, the economies of resource-rich countries in the 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 (e.g. Gelb and Associates 1988, Karl 1997, Auty 1993). 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 exercised state ownership over their mineral reserves.

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

⁴ This is based on the often unfounded assumption that states in developing countries have a high degree of autonomy from social forces. For example, Klapp (1987) presumes that the establishment of national oil companies in developing countries amounts to centralized state control and the formal model in Robinson, Torvik, and Verdier (2002, 3-4) takes for granted that politicians make autonomous decisions about mineral production.

⁵ A variation on this is Shafer's (1994) argument that where the mineral sector dominates the economy, the interests of the state and this sector become indistinguishable.

⁶ By definition, a rentier state is a state in which "the government is the principal recipient of the external rent in the economy" (Beblawi 1987, 52). In this vein, Karl (1997, 49) asserts that "all mineral states... are rentier or distributive states."

varying degrees of state control. By extending our analysis of the resource curse to all petroleum-rich states and across historical time periods (1900-2000), we demonstrate that state ownership is not always the case empirically. Rather, resource-rich states have adopted a variety of strategies toward the development of their mineral sectors. By disaggregating ownership and control, we identify four strategies in particular. These are described below and their distribution across countries over time is illustrated in Figure 1.

- 1) **S₁ = State ownership (or nationalization) with low foreign involvement:** the state owns the rights to develop all mineral deposits and the majority of shares in production, refining, and/or export facilities; foreign investors can participate either through contracts, such as carried-interest or joint ventures, that restrict their managerial and operational control or they can only operate as service subcontractors.
- 2) **S₂ = State ownership (or nationalization) with high foreign involvement:** the state owns the rights to develop all mineral deposits and the majority of shares in production, refining, and/or export facilities; foreign investors can participate through more permissive contracts, such as productions sharing agreements (PSAs), which allow them significant managerial and operational control.
- 3) **P₁ = Private ownership with low foreign involvement:** private (largely domestic) companies own the rights to develop all mineral deposits and the majority of shares in production, refining, and/or export facilities; foreign investors can either participate through contracts, such as carried-interest or joint ventures, that restrict their managerial and operational control or they can only operate as service subcontractors.
- 4) **P₂ = Private ownership with high foreign involvement:** private (largely foreign) companies own the rights to develop all mineral deposits and the majority of shares in production, refining, and/or export facilities; foreign investors can either buy shares in existing facilities or participate through permissive contracts, such as productions sharing agreements (PSAs), which allow them significant managerial and operational control.

Figure 1 here

EXPLAINING VARIATION IN THE STRUCTURE OF OWNERSHIP

The variation in the structure of ownership across time and space in petroleum-rich states not only suggests that the assumption of state ownership is unfounded but also demands a comprehensive explanation.

Given the clear temporal trends in the data, the most obvious conclusion to draw might be that this variation is a product of international factors -- namely, the structure of the international oil market and policy convergence. Indeed, this is the standard explanation for the predominance of foreign ownership (P₂) during the first half of the 20th century and, conversely, the predominance of state ownership (S₂) during the second half of the 20th century. As many have argued, the 1960s ushered in a new era for petroleum-rich states in the developing world (e.g. Klapp 1987,

Yergin 1991, Philip 1994). Until then, a few major international oil companies (known as the “Majors” or the “Seven Sisters” -- Royal Dutch Shell, Esso, Mobil, Texaco, Standard Oil of California, British Petroleum, and Gulf) dominated the global oil market, leaving petroleum-rich states little choice but to accept foreign ownership and control over their reserves. The emergence of several independent oil companies that were willing to cede more revenue and managerial control in order to wrest some market share away from the Majors, however, enabled developing countries to design more favorable contracts with foreign investors, and eventually, to nationalize their respective oil sectors. Also at this time, international experts encouraged resource-rich states throughout the developing world to adopt state ownership, both as a way to gain independence from foreign oil companies (e.g. Tugwell 1975, Cardoso and Faletto 1979, Evans 1979) and to better harness their export revenue for domestic economic development (e.g. Hirschman 1958, Baldwin 1966).

Yet, the primary problem with this explanation is that it fails to take domestic politics seriously - in particular, it dismisses the ability of state leaders to make conscious choices and overlooks the effect that domestic political and economic conditions have on their decision-making calculus. While the leaders of developing countries are undoubtedly subjected to enormous international constraints, they must also contend with some significant constraints at the domestic level. The aforementioned arguments are based on the premise that international constraints are more formidable and/or influential than domestic ones. But there is no a priori reason to assume that this is the case.

Others have offered explanations that, while they invoke domestic-level variables, are either too deterministic or limited in scope. Sectoralists, for example, argue that the main characteristics of this sector, such as capital intensity and concentration, inevitably lead to state ownership (e.g. Auty, 2001; Gelb, 1988; Karl, 1997, Shafer, 1994).⁷ Thus, they cannot account for either form of private ownership (P_1 and P_2), both of which have become more popular since the late-1980s. A slightly different version of this argument links resource endowments in general (including labor) to centralized, extractive institutions erected by European colonizers, but then assumes that these institutional legacies persisted (Acemoglu, Jackson, and Robinson, 2003). Nationalism is another plausible explanation for why countries adopt state ownership (e.g. Klapp 1987). Yet, it can explain only a fraction of the variation in energy development strategies across time and space. Nationalist sentiments may be entirely appropriate, for example, to explain Mexico’s efforts to nationalize the oil industry after the 1911 Mexican Revolution (although it does not actually do so until 1938) or the nationalization of oil throughout the Middle East following the 1967 Arab-Israeli war. It does not, however, account for the trend toward P_1 and P_2 in the late 1980s and early 1990s or, for that matter, the predominance of S_2 rather than S_1 . If nationalism was in fact the primary motivation behind the change in development strategies in the 1950s and 1960s, then we should find S_1 (state ownership with low foreign involvement) was more common than S_2 (state ownership with high foreign involvement).

⁷ For an overview and critique of the sectoralist approach, see Davis, 1998.

Taking Domestic Politics Seriously⁸

Our explanation for the choice of mineral development strategies begins with two basic assumptions. First, we assume that all state leaders are sovereignty maximizers. Particularly in newly independent states, state leaders prefer more rather than less sovereignty, which translates into more rather than less control over their natural resources. They aim to preserve their recently acquired ability for independent decision-making over their natural resources. We can thus derive their preference rankings over the available set of policy choices:

- 1) Nationalize (or retain state ownership) with state control/low foreign involvement [**S₁**]
- 2) Nationalize (or retain state ownership) with foreign control/high foreign involvement [**S₂**]
- 3) Privatize to domestic investors with low foreign involvement [**P₁**]
- 4) Privatize to foreign investors with high foreign involvement [**P₂**]

Second, we assume that all state leaders are concerned primarily with staying in power, and that in order to do so they must satisfy those interests that support their rule and appease or defeat those that do not. More specifically, they must continue to satisfy the status quo set of political and economic expectations that the state is expected to fulfill. This will vary according to the particular system of patronage and the particular cleavage structure on which patronage is dispensed in a given state. State leaders in mineral-rich states will therefore choose development strategies that enable them to achieve a maximum level of sovereignty over their natural resources without threatening their continued rule.

The ability of state leaders to stay in power, however, depends on the amount of resources [R] they possess versus the costs [C] of garnering support and appeasing or defeating opponents, where R is a function of the availability of alternative sources of export revenue to developing their mineral reserves and C is a function of the level of political contestation over the basis for dispensing political power and economic patronage facing them at the time of discovery.⁹ State leaders can safely maintain their hold on power when they possess sufficient resources to meet their costs. Their power becomes threatened, therefore, either when R decreases relative to C or when C increases relative to R.¹⁰ Under either of these conditions, the ability of state leaders to pursue their most preferred strategy is constrained because they must generate additional resources with which to appease or defeat their opponents.

Access to alternative sources of export revenue determines whether or not the leadership can maintain current levels of domestic spending without immediately exploiting their oil and gas reserves. Simply put, a state with alternative sources of export revenue can postpone the development of its oil and gas reserves, whereas a state without alternative sources of export revenue faces much greater time pressures to generate revenue from its oil and/or gas reserves. The degree of alternative sources of export revenue in a given state is ascertained by whether or not (1) it can develop an existing export commodity independently, that is, without the

⁸ This section borrows heavily from Jones Luong and Weintal 2001.

⁹ “Discovery” here connotes both the actual initial discovery of petroleum reserves and the transfer of authority over existing reserves through independence or regime change.

¹⁰ In other words, state leaders will retain power when the ratio of R to C is greater than or equal to 1, and will lose power when the ratio of R to C is less than 1.

immediate need for inputs from beyond its borders, including foreign capital; (2) there already exists an export market for this particular commodity; and (3) the export of this commodity is capable of providing a disproportionate share of foreign revenue in the status quo.

The level of contestation over the basis for dispensing political power and economic patronage determines the amount of resources that current leaders need to maintain their hold on power. This is measured by recording whether or not (1) there exists a cleavage structure that could function as a viable alternative to the current basis for dispensing patronage; (2) political parties and/or social movements based on such an alternative cleavage have emerged and gained popular support; and (3) these parties and/or movements have in fact made demands for greater resources.¹¹ In sum, the more intense the challenge to maintaining the existing system for dispensing patronage -- and hence, the dominant cleavage on which this system is based -- the greater state leaders' need to attain additional resources to maintain power. Particularly in developing countries, the emergence of a potent rival cleavage threatens the existing patron-client networks on which the economic and political system is based. In doing so, it directly challenges and may even undermine the dominant sociopolitical structure, which increases the likelihood for social and political instability. Groups based on this emergent cleavage seek to displace the existing patronage network so as to acquire a greater share of state resources. Where a high level of political contestation exists, then, state leaders must seek an immediate expansion in export revenue, such that the state can simultaneously reinforce the position of existing elites through whom they maintain political stability and successfully address or circumvent the interests of this rival cleavage. For leaders in newly independent states, this situation is especially difficult because it calls into question the basis for constructing the new state.

The interaction between these two domestic factors -- the degree to which alternative sources of export revenue are available and the level of political contestation -- shapes which of the four mineral development strategies state leaders choose to pursue. This is summarized in Table 1.

Table 1 here

At one end of the spectrum, leaders in mineral-rich states with a high degree of alternative export revenue and a low level of contestation face the least constraint on their strategic choices. With the financial resources to maintain their status quo support from the dominant cleavage and without the added cost of overcoming a serious challenge to their rule from a rival cleavage, they can afford to postpone oil and gas development. Thus they can pursue their first rank order preference [S₁] to nationalize and minimize the role of international actors. At the other end, leaders in mineral-rich states with a low degree of alternative export potential and a high level of contestation face the greatest constraints on their strategic choices. In addition to a contraction in resources, they face domestic pressures to generate revenue immediately so as to both maintain status quo support and diffuse a potent challenger to their continued rule. Thus they must adopt their least preferred policy choice [P₂] to privatize their mineral sector with the direct involvement of international actors.

¹¹ For example, if this alternative cleavage is nationalism, these demands might constitute secessionist attempts and/or claims for greater autonomy.

In between these two extremes, state leaders can also face a domestic environment in which the degree of alternative export potential and the level of contestation are either both low or both high. A low degree of alternative export revenue sources combined with a low level of political contestation enables state leaders to adopt their second most preferred policy outcome [S₂] to nationalize and offer the international community a substantial role in developing their mineral reserves. Under this scenario, state leaders can pursue a strategy of state ownership since the absence of competing domestic cleavages makes the need for immediate revenue much less acute. Yet the international role is substantial because there exists no alternative source of export revenue with which to maintain their status quo base of support. Foreign investment is thus necessary to expedite the development of their reserves. Where state leaders have a high degree of alternative sources of export revenue and experience a high level of political contestation in the status quo, they can adopt their third most preferred policy outcome [P₁] to engage in extensive privatization and involve the international community only minimally. Under this scenario, leaders engage in extensive privatization as a means of maintaining support for their continued rule. By transferring ownership of these resources from the state to private domestic actors, they can both bolster dominant patronage networks and appease the emerging rival one. They are able to minimize the role of international actors, however, because they can rely on the revenue from their alternative exports. In fact, excluding foreign investors from the privatization process enables them to sell off these resources to domestic supporters and/or powerful rivals at below market value.

Methods and Preliminary Findings

In order to test these propositions, we are in the process of compiling a dataset that will include the aforementioned explanatory variables along with several control variables. Although the dataset is not yet complete, we do have enough information based on comprehensive case studies to code the explanatory variables for a subset (17) of petroleum-rich states. As a first cut, Table 2 provides some indication that the domestic factors we invoke do possess some explanatory power. We predict the initial development strategy correctly for 11 out of the 17 countries included, or approximately 65%. We also explain more than half of the cases of privatization to foreign investors (P₂) -- the predominant strategy until 1960 -- suggesting that international pressures were neither the only factors behind this policy convergence nor the most relevant. Moreover, Table 3 indicates that, for these 17 countries, we accurately predict nationalization (S1 and S2) in 6 out of the 9 total cases, or approximately 67%. For some of these countries, nationalization was their initial mineral development strategy, but for others it constituted a change in strategy. Thus, our preliminary findings also suggest that our explanation is dynamic.

Table 2 here

Table 3 here

THE IMPACT OF OWNERSHIP STRUCTURE ON INSTITUTIONS

The data compiled in Figure 1 clearly shows that the structure of ownership has varied across time and space. We have also provided evidence to suggest that this variation is not purely a product of international factors, as is widely presumed. What is less clear is whether and how the

structure of ownership actually matters. In other words, how does it affect a resource-rich country's developmental prospects -- specifically, whether or not it falls prey to various aspects of the "resource curse"?

This question has remained unaddressed in the "resource curse" literature largely owing to the prevalent assumption of state ownership and its conflation with state control as well as the strong presumption that state ownership would benefit rather than undermine political and economic development. The assumption that mineral wealth is always and necessarily state-owned and centrally controlled is so embedded in this literature that it is rarely either explicitly acknowledged or incorporated into clear, testable hypotheses. Rather, state ownership is treated as a constant, and thus, serves as a background condition, or something to be taken as given in the analysis.¹² The prominent argument that petroleum-rich states do not build tax institutions because they can rely exclusively on external sources of revenue, for example, is legitimate only when export revenue accrues directly to the state (e.g. Luciani in Beblawi and Luciani 1987, Karl 1997). Similarly, arguments that the resource curse is a product of bad policy or poorly designed institutions must assume (implicitly or explicitly) that state leaders have complete control over the production and export of mineral reserves (e.g. Ascher 1999, Robinson, Torvik, and Verdier 2002). Perhaps the other reason that the resource curse has not been directly attributed to state ownership is that many thought nationalization would be beneficial to the mineral-rich states in question -- either because it would foster domestic investment and the provision of public goods (e.g. Hirschman 1958, Baldwin 1966) or help oil-rich states break the dependency cycle (e.g. Tugwell 1975, Cardoso and Faletto 1979, Evans 1979).

In contrast, we treat the structure of ownership as a variable from which we develop and test a set of explicit hypotheses with clearly specified microcausal mechanisms. Because the literature often assumes that leaders in resource-rich states fail to build viable institutions that are crucial for fostering state capacity, democratic regimes, and long-term economic growth, our primary concern is establishing the links between the structure of ownership over the production and export of mineral reserves and institutional development. We focus our attention on one particular set of state institutions -- tax regimes -- given that a weak (or non-existent) tax regime is viewed in the literature on the resource curse as perhaps the most prevalent negative outcome of resource wealth (e.g. Beblawi and Luciani 1987, Chaudhry 1989). The lack of a viable tax regime has also been consistently identified in this literature as impeding broad economic growth and the development of democracy and undermining state capacity (e.g. Mahdavi 1970, Shafer 1994, Karl 1997). Conversely, the development of a viable tax regime is often cited in the general political economy literature as facilitating transitions to democracy and promoting economic development and state capacity (e.g. Bates and Lien 1985, Levi 1988, North and Weingast, 1989). Moreover, the ability to extract revenue is often cited as the best indicator of state capacity because a reliable source of revenue is essential for leaders to build and maintain the modern state's coercive and administrative institutions (e.g. Tilly, 1975, Levi 1988).

¹² Shafer (1994) is somewhat of an exception here since he is agnostic about ownership, and instead, focuses on sectoral characteristics. Nonetheless, in both his cases of states dominated by mineral sectors -- Zambia and Sri Lanka -- mineral reserves are state-owned and operated. Thus, the negative effects on state capacity he identifies may actually be a result of state ownership rather than sectoral characteristics.

Ownership Structure and Institutional Capacity

Why should the structure of ownership over mineral reserves matter? In short, because each form of ownership fosters different incentives for institution-building by creating a different set of primary actors and form of business-state relations, and thus, is likely to produce distinct institutional outcomes. Three basic patterns emerge. First, where the main actors are state elites and bureaucrats, business-state relations are blurred and symmetrical, their incentives for building discretionary institutions are likely to converge, and thus, institutions are likely to be weak in terms of both their ability to constrain and predictability (i.e. ineffective and unstable). Second, where the main actors are state elites and domestic owners, business-state relations are clear and symmetrical, and thus, their incentives for building institutions that act as formal guarantees are likely to converge such that strong (i.e. broadly effective and stable) institutions emerge. And third, where the main actors are state elites and foreign investors, business-state relations are clear and asymmetrical; their incentives for institution-building are thus likely to diverge, resulting in hybrid institutions -- or institutions designed specifically for the mineral sector that are effective but not stable. These very general hypotheses are each summarized in Table 4 and elaborated upon below.

Table 4 here

(S₁) State Ownership and Control

State ownership and control of mineral reserves (S_1) fosters business-state relations that are both blurred and symmetrical. The boundary between the main actors -- state elites and bureaucrats -- is blurred because there is no clearly identifiable principal (see, e.g., Aharoni 1982). Rather, the population as a whole is the nominal principal whose interests are ostensibly served by a multitude of agents. At the same time, because the control structure is not clearly defined and there are no objective criteria for determining managerial performance, these agents often act like principals such that administrative tasks and political goals also become blurred (see, e.g., Shleifer and Vishny 1994, Boycko, Shleifer and Vishny 1996, Stiglitz 1993). The relative power between state elites and bureaucrats is symmetrical because both have direct access to the proceeds from mineral exploitation. They also both have exclusive access to information about the income -- as well as the misdeeds -- of the other.¹³

This form of business-state relations, in turn, promotes incentives for building (or sustaining) weak institutions because both state elites and bureaucrats prefer greater discretionary power, and thus, institutions that are unlikely to constrain their behavior in any meaningful or predictable way. Their interests thus converge toward the same outcome. This encourages a form of implicit bargaining whereby each side tacitly agrees to either undermine existing institutions that might pose a threat to their discretionary authority, for example, by increasing transparency and accountability, or to maintain the status quo, and thus, neglect institution-building altogether. These tendencies are likely to be exacerbated, moreover, by an exogenous shock or economic crisis because time horizons shorten and opportunities for rent-seeking expand. Under (S_1), then, we would expect booms and busts to further weaken institutions in mineral-rich states-- similar to the existing literature on the resource curse (see, e.g., Karl 1997 and Ross 2001b).

¹³ Some might describe this as a situation of “mutual hostages” (see, e.g., Boylan 2001 or Kang 2002).

(P₁) Private Domestic Ownership and Control

In contrast, private domestic ownership and control of mineral reserves (P_1) fosters business-state relations that are both clear and symmetrical. The boundary between the main actors -- state elites and domestic owners -- is clear because there is a clearly identifiable principle. Moreover, because the control structure is clearly defined and there are objective criteria for evaluating managerial performance, agents do not conflate administrative tasks with political goals. Rather, they are punished and rewarded based on their ability, for example, to maximize efficiency, increase profits and market capitalization, and expand market share. Their relative power is symmetrical because each has an independent source of authority over the other. Domestic owners possess the rights to revenue from mineral exploitation, and thus, are a critical source of tax revenue for the state. State elites possess the authority to revoke property rights and reduce revenue streams through demanding excessive taxation. In short, they need each other not just to survive but to thrive.

This form of business-state relations, in turn, promotes mutual incentives for building stable, effective, and far-reaching institutions -- that is, institutions that are strong -- because such institutions both reduce transaction and monitoring costs and increase fiscal predictability by establishing formal guarantees. The main actors' interests concerning institution-building thus converge. Yet, their preferences over the exact content of these institutions will vary based on their specific interests (e.g. tax rates, number of audits, etc.). Combined with the fact that their relative power is symmetrical (i.e. neither can impose their preferred outcome on the other), this variation in preferences over content encourages these two sets of actors to engage in explicit bargaining to formulate strong institutions. The mutual desire for formal guarantees is likely to be reinforced, moreover, by an exogenous shock or economic crisis because both actors will feel vulnerable and their continued survival will depend more acutely on the actions of the other. Thus, in contrast to the existing literature on the resource curse, under (P_1) we would expect booms and busts to bolster, rather than to weaken, institutions and thereby state capacity.

Blurred versus Clear Boundaries

As Table 4 illustrates, the variable that accounts for the difference between these two ownership structures, and thus, the key to understanding why they produce such divergent institutional outcomes is the nature of boundary between the main actors. But why is this the case? Why are blurred (S_1) versus clear (P_1) boundaries more likely to produce such different institutional outcomes? The short answer is that they foster very different incentives for institution-building because they generate very different costs and benefits for the main actors involved.

Consider, for example, how the degree of fiscal transparency, nature of the principal-agent problem, connection to profits, and budgetary constraints, vary under these two scenarios and the type of incentives they each generate for building tax regimes and regulatory polices. (See Table 5 for details.) Blurred boundaries reduce transaction and monitoring costs and thus lessen the need and desire for institutions to reduce these costs. At the same time, they increase the benefits of short-term rent-seeking such that neither set of actors has an incentive to create effective institutions for internal or external monitoring. In contrast, clear boundaries increase transaction

and monitoring costs, thereby raising the incentive to build institutions aimed at reducing these costs, and provide direct benefits to both principals and agents for using resources efficiently and making long-term investments.

Table 5 here

(S₂) State Ownership and Foreign Control and (P₂) Private Ownership and Foreign Control

As is the case with P₁, under both state ownership and foreign control (S₂) and private ownership and foreign control (P₂), the boundary between the main actors is clear because there is a clearly identifiable principle and the control structure is clearly defined. However, in contrast to both S₁ and P₁, the relative power between the two main actors -- state elites and foreign investors -- in both cases is asymmetrical and dynamic. Although foreign investors initially have greater leverage over the design of institutions, such as tax regimes and regulatory policies, because state elites are interested primarily in attracting foreign capital, once these foreign investors have made their investments (i.e. their costs are “sunk”) state elites can exercise greater leverage over institutional design.¹⁴ In particular, they can change these institutions so that they reap greater benefits while foreign investors internalize more of the economic risks. There is also some empirical evidence to suggest that state elites in mineral-rich states have been able to extract more from foreign investors over time due to changes in the international system and gradual learning within the state apparatus (see, e.g., Moran 1974, Tugwell 1975).

Also in contrast to both S₁ and P₁, this form of business-state relations promotes divergent incentives for institution-building. The incentives of the two main actors diverge because although both prefer specialized institutions (i.e. for the mineral sector only) state elites prefer discretion, and hence, flexibility whereas foreign investors prefer institutions that are stable. Because their relative power is asymmetrical and their interests diverge, institutional outcomes are thus more likely to be imposed by the more powerful set of actors. The dynamic nature of asymmetrical power between the two main actors, moreover, means that foreign investors will lose their ability to dictate the terms of institutional arrangements over time. In other words, we expect these states to develop specialized institutions for the energy sector that become increasingly unstable. We also expect these tendencies to be accelerated by economic crisis.

Private Domestic Owners versus Foreign Investors

Here, we are making an explicit assumption underlying the distinction between P₁ and P₂ is that private domestic owners and foreign investors have different preferences over institutional outcomes. Domestic investors, it is presumed, prefer more broad-based or far-reaching institutions whereas foreign investors are content to operate under institutions designed specifically (and exclusively) for the mineral sector. This may seem obvious in the case of foreign investors, who, after all, have been attracted to a given country by mineral wealth alone. But why would domestic investors prefer institutions that have a broad-based effect? In short, because they are more likely to have direct links with the domestic economy across sectors --

¹⁴ This is often referred to in the economics literature on contracting as the “obsolescing bargain” -- beginning with Vernon 1971.

both in terms of their supply network and the market for their products (see, e.g., Williamson 1985) as well as their other investments. In contrast, foreign investors are more likely to rely on external supply networks, produce primarily for export, and to re-invest their profits abroad.

Alternative Explanations

Our hypotheses regarding state ownership do not necessarily contradict the existing “resource curse” literature, but rather, make the microcausal causal links between state ownership and institutional outcomes explicit. While some do treat institutions as exogenous to resource wealth (e.g. Robinson, Torvik, and Verdier 2002), it is more often the case that scholars are concerned with the effects of resource wealth on state capacity and, as mentioned above, although it is rarely acknowledged explicitly, the crucial link is state ownership.

There are several existing explanations for weak institutional capacity in mineral-rich states. Perhaps the most prevalent, already alluded to above, is that the reliance on external revenue creates a disincentive for state leaders to invest in fiscal institutions because it induces myopia and risk aversion (e.g. Anderson 1987, Beblawi and Luciani 1987, Mahdavi 1970, Chaudhry 1989, Mitra 1994, Karl 1997). There are two other fairly common arguments related to the state’s ability to rely on external rents: first, that this promotes the insulation of policy-makers and thus a high degree of state autonomy (e.g. Shafer 1994, Karl 1997, Ascher 1999); and second, that this fosters the emergence of predatory states (e.g. Auty 2001, chapter 8). In both cases, state leaders resist institution-building because they prefer to maximize their discretion over both the policy-making process and the distribution of export rents.

Many scholars center their arguments on the effects of commodity booms in particular, which can complement or intensify some of the aforementioned pathologies. Terry Lynn Karl (1997), for example, argues that oil booms exacerbate the weak bureaucracies and fiscal institutions that “petro-states” have inherited from colonial rule because they overwhelm the bureaucracy. Richard Auty (2001, chapter 8) similarly argues that resource booms force the state to become overextended -- that is, to assume administrative tasks that are beyond its existing institutional capacity. Although he is referring to land abundance (specifically, forests) rather than mineral wealth, Michael Ross (2001b) also links institutional weakness (specifically, regulatory institutions) to resource booms because they increase state actors’ desire to “seize” rents through deliberately “weaken[ing] institutions that restrict windfall use.

Others highlight the unique features of mineral sectors. Perhaps the boldest explanation of this type is Michael Shafer’s (1994) argument states develop different institutional capacities depending on the characteristics of the dominant economic sector. Where high/high sectors (or those sectors with both high capital intensity and high economies of scale -- i.e. the mineral sector) dominate, firms are concentrated and inflexible. The result is a form of state capture whereby the state is compelled to collude with sectoral actors such that their interests become merged. This relationship impedes the state’s ability both to develop institutions to tax, monitor, or regulate other sectors and to restructure following an economic crisis -- for example, by promoting the development of other sectors. Conversely, where low/low sectors (or those sectors with both low capital intensity and low economies of scale) dominate the economy, firms are

dispersed and flexible. The state is thus compelled to develop more adaptable and penetrating institutions that can both monitor and extract revenue from numerous firms across sectors.

Arguments concerning the effects of private ownership (domestic or foreign) on institution-building or state capacity in mineral-rich states, to our knowledge, do not exist,¹⁵ yet some scholars do emphasize that it matters whether the accumulation of externally generated revenue is concentrated or dispersed. Kiren Aziz Chaudhry (1989), for example, argues that although reliance on external rents weakened state capacity in both Saudi Arabia and Yemen, the Yemeni state was more autonomous, and thus better equipped to respond to economic crisis, because it relied on labor remittances that promoted “decentralized accumulation” and thereby supported the emergence of “an independent and affluent private sector” (p103). She does not, however, link the dispersion of rents to structure of ownership over mineral wealth, but rather, to the nature of the external revenue source. Similarly, Shafer (1994) argues that dispersion of revenue sources promotes state capacity because it gives state leaders an incentive to build broadly effective institutions. Yet, dispersion is only possible in states where low/low sectors dominate the economy -- and thus, not in mineral-rich states.

Methods and Preliminary Findings

Our general hypotheses linking the structure of ownership to institutional outcomes enable us to make specific predictions about the effects of mineral development on tax regimes. Whereas the “resource curse” literature argues that mineral-rich states either neglect building a tax system altogether (e.g., Anderson 1987, Beblawi and Luciani 1987, Mahdavi 1970, Chaudhry 1989) or rely solely on revenue derived from specific resource sector taxes (e.g., Shafer 1994, Karl 1997), we predict that the composition and stability of tax regimes in mineral-rich states vary by ownership structure. (These are summarized in Table 6 below.)

H1: Where the mineral sector is owned and controlled by the state (S_1), we expect to find a weak tax regime -- that is, one based exclusively on indirect taxes across sectors, albeit primarily in the mineral sector, as well as subject to frequent change, arbitrary enforcement, and thus, minimal popular compliance.

H2: We expect to find precisely the opposite where the mineral sector is owned and controlled by domestic investors. Under P_1 , a strong tax regime should emerge; it should become increasingly reliant on a combination of direct and indirect taxes across sectors and less reliant on the mineral sector as well as increasingly stable and effective.

H3: Under both state ownership and foreign control (S_2) and private ownership and foreign control (P_2), we would expect to find a hybrid tax regime -- that is, one based on both direct and indirect taxes but only in the mineral sector and increasingly unstable with arbitrary enforcement but significant compliance within the mineral sector..

¹⁵ Ascher 1999 is a possible exception because he distinguishes between public and private exploiters (p9). Yet, he argues that policy failure will happen under both scenarios. It is also not clear who these private actors are; for example, since he assumes property rights are vague, they seem to be private individuals faced with the standard collective action problem of overgrazing the commons.

Table 6 here

For each of these types of ownership structure, we also expect to find that tax regimes are a product of the particular mode of institution-building involving the main actors that we identify.

H1: Where the mineral sector is owned and controlled by the state (S_1), we expect to find that state elites and bureaucrats have engaged in an implicit bargain to create or sustain a weak tax regime.

H2: In contrast, where the mineral sector is owned and controlled by domestic investors (P_1), we expect to find that strong tax regimes are a product of explicit bargaining between state elites and private domestic owners.

H3: Under both state ownership and foreign control (S_2) and private ownership and foreign control (P_2), we expect to find that initially foreign investors essentially dictate the terms of their tax burden, but that over time this authority shifts to state elites. Tax regimes are thus the product of coercion -- first by foreign investors, and then, by state elites.

Obviously, testing these hypotheses requires a small-n (or case study) approach. We are not interested merely in establishing a correlation between the structure of ownership and the composition and stability of tax regimes across mineral-rich states, but rather, in ascertaining whether the microcausal mechanisms we specify are in fact responsible for these outcomes. Poor tax regimes are a ubiquitous feature of the developing world. How can we be sure, then, that the structure of ownership (or mineral wealth, for that matter) is actually responsible for this outcome without engaging in process tracing to identify the relevant actors and verify their preferences over outcomes and then to determine their influence on these outcomes? The small number of cases of private ownership to domestic actors (P_1) also constrains our ability to conduct a large-n analysis. (Refer to Figure 1.)

The energy-rich states of the former Soviet Union¹⁶ -- Azerbaijan, the Russian Federation, Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan -- provide an ideal set of cases with which to test these propositions. Although they shared many features in common when they became independent countries in 1991, they opted for divergent energy development strategies.¹⁷ (See Table 7 below.) At one end of the spectrum, Turkmenistan and Uzbekistan maintained full state ownership over their respective oil and gas reserves, and rejected the direct involvement of international actors in developing them. At the other end, Kazakhstan completely privatized its energy sector by selling the majority of shares in formerly state-owned oil and gas enterprises to foreign investors. In between these two extremes, the Russian Federation privatized its energy sector to domestic capitalists with only a minimal amount of international involvement, while Azerbaijan maintained full state ownership over its energy reserves and invited foreign

¹⁶ Together with Iran, these five energy-rich Soviet successor states make up the Caspian Basin, which is estimated to hold the largest oil and gas reserves in the world outside the Persian Gulf.

¹⁷ The privatization of oil to domestic investors (P_1) and continued state ownership and control of gas (S_1) in Russia presents another opportunity to test our hypotheses -- perhaps an even better one because we can control for national level variables. Although we do not provide the results of that test here, it should be noted that we find that the empirical evidence strongly supports our arguments (see Weinthal and Jones Luong, forthcoming).

companies to assume a direct role in developing them. The fact that they all adopted these strategies at roughly the same time and within the last decade also facilitates our ability to engage in process-tracing.

Accordingly, the empirical evidence described in the next section is based on extensive fieldwork in Azerbaijan, the Russian Federation, Kazakhstan, Turkmenistan, and Uzbekistan since 1997, including conducting multiple interviews (over time) with all the relevant actors in each country (e.g. state elites, bureaucrats, domestic owners and foreign investors as well as domestic and foreign analysts), administering foreign investor surveys in Kazakhstan and Azerbaijan, and compiling data with assistance from the relevant government ministries (e.g. finance, economic development, foreign economic relations, and/or trade) and international financial organizations (e.g. IMF and World Bank).

Table 7 here

Tax Regimes in the Soviet Successor States

As illustrated in Table 8 below, the five mineral-rich states of the former Soviet Union provide compelling evidence to confirm each of our hypotheses. Let's first compare the evolution of tax regimes in the two countries that privatized their energy sector -- the Russian Federation and Kazakhstan -- to domestic and foreign investors, respectively, and then turn to a comparison of Turkmenistan, and Uzbekistan, both of which retained state ownership and control over their energy sector, with Azerbaijan, which retained state ownership but has allowed foreign control.

Although both Russia and Kazakhstan received the bulk of their tax revenue from the energy sector in the 1990s, since 1998 Russia has moved to increase the budgetary contribution of personal income tax (PIT) and corporate income tax (CPT) across sectors while Kazakhstan has continued to rely on increasing its tax and collection rates of PIT and CPT only in the energy sector. At the same time, the contribution of the VAT to GDP in Russia has been steadily declining since 1992 and the government has decreased its reliance on taxes specific to the energy sector. Conversely, Kazakhstan's reliance on VAT has been steadily increasing since 1992 -- primarily in the energy sector -- as has its reliance on sector specific excise taxes.

Concerning stability, Russia has only recently enacted administrative reforms that have mandated greater consistency in enforcement, fostered increased compliance, and thus, led to higher collection rates. Most importantly, in 2000 and 2001 it established a formal tax code that has remained stable. In Kazakhstan, however, the tax administration has undergone only minimal reform and its tax regime, which has been very stable on paper since 1995, has become increasingly volatile in practice.

Finally, the key players involved in the evolution of tax regimes in Russia and Kazakhstan have been private domestic owners and foreign investors, respectively. As we have argued elsewhere, the tax code that Russia adopted in the early 2000s, which is responsible for many of these positive changes, was the product of on-going negotiations between the Russian government and private domestic oil companies (Jones Luong and Weinthal 2004) In Kazakhstan, foreign investors had the single greatest influence on the initial development of tax policy -- most

notably the 1995 Tax Code, which was designed to attract foreign capital, particularly to its oil and gas sectors. Yet, since then, they have been unable to resist the government's propensity to unilaterally renege on its prior agreements.

Although all three countries have unstable tax regimes, Turkmenistan and Uzbekistan have continued to rely primarily on the indirect taxes across sectors whereas Azerbaijan has become increasingly reliant on energy sector taxes. In fact, VAT and excise taxes from the energy sector were the only source of national tax revenue that experienced growth from 2000 to 2001, and the State Oil Company of the Azerbaijani Republic (SOCAR), which collects the proceeds from foreign contracts, is the single largest taxpayer.

The instability of their respective tax regimes, moreover, can not be attributed to the same source or process. In Turkmenistan and Uzbekistan, taxation is arbitrarily enforced because it is an important side-payment for bureaucrats at all levels. Both sets of actors have agreed informally that the tax regime should remain as it is. (They have done so, it is interesting to note, in the face of mounting pressures from international financial organizations such as the IMF and World Bank.) State elites prefer indirect taxation because it is less transparent and makes a minimal degree of popular compliance effortless. State elites and bureaucrats in Azerbaijan also prefer indirect and arbitrary taxation. For example, SOCAR's managers are the most resistant to reducing reliance on the oil sector and indirect taxation. Moreover, as in Kazakhstan, foreign investors initially had some positive influence on the development of tax legislation but this influence has subsided over time, and thus, the tax regime has become both increasingly reliant on energy sector taxes (direct and indirect) and unstable.

Table 6 here

IMPLICATIONS FOR THE “RESOURCE CURSE”

This paper offers several important correctives to the “resource curse” literature that call into question the conventional wisdom that the empirical correlation between mineral wealth and a series of negative political and economic outcomes -- e.g. poor economic performance, unbalanced growth, weak states, and authoritarian regimes -- amounts to causation.

First, it demonstrates that mineral-rich countries have actually adopted very different ownership structures over the exploration and production of mineral reserves across time and space. This variation clearly contradicts the prevailing assumption in the existing literature that mineral wealth is always and necessarily state-owned and centrally controlled.

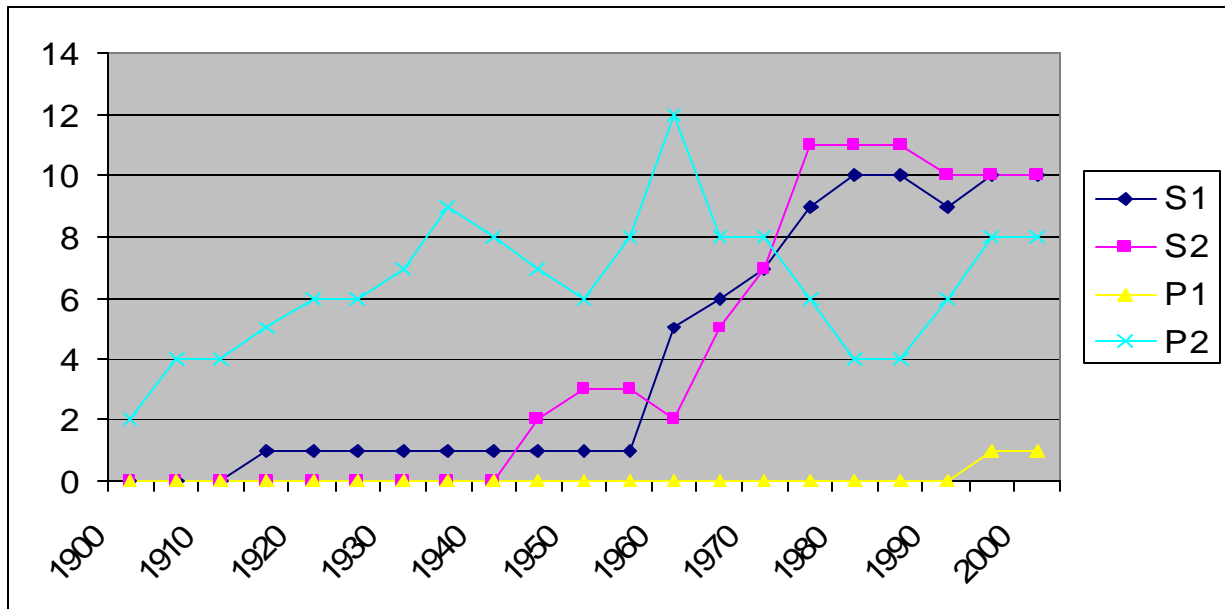
Second, it provides a compelling alternative explanation for why mineral-rich states adopt different ownership structures by taking domestic politics seriously. We find some empirical support that the interaction between the degree of alternative export potential and level of political contestation influences the choice of ownership structure in petroleum-rich states. This suggests that the global trends we have witnessed in the structure of ownership over time may be more accurately attributed to the coincidence of domestic processes across mineral-rich countries than to international pressures for policy convergence.

Finally, by specifying the causal mechanisms between ownership structure and institutional outcomes we identify an alternative path whereby mineral-rich states can escape the alleged “curse” of their wealth. Private ownership is more likely to result in the dispersion of proceeds and the creation of actors outside the state who desire formal guarantees and seek to influence institution-building through lobbying. At the same time, as the indirect beneficiary of mineral wealth, state actors are compelled to develop methods for regulating the activities of private owners and extracting revenue from them as well as to generate other sources of revenue outside the mineral sector. Thus, policies and institutions are often the product of bargaining between state leaders and domestic entrepreneurs.

Furthermore, our findings concerning the incentives that different ownership structures create for institution building in mineral-rich states suggest that emerging institutions can have important effects on individual incentives and behavior, and thus, the design of other new institutions. This lies in stark contrast to the predominant assumption that institutions must be stable and consolidated in order to have their predicted effect. And nowhere is this assumption more entrenched than in the study of property rights. The contention that only stable property rights can provide the necessary incentives for growth-promoting behavior goes back as far as Robert Coase in 1960 and appears as recently as Hernando de Soto in 2000. Moreover, the majority of economists (e.g. Stiglitz 1999, Vickors and Yarrow 1991, Shirley, Nellis, and Kikeri 1992) -- particularly those studying the transitions underway in the post-communist world -- insist that it is necessary to create the institutional framework for private ownership, including stable tax regimes, in order for the transfer of state property to private hands, to foster economic growth. Yet, Russia was able to achieve broad-based tax reform despite the fact that property rights remained unstable. (as late as the August 1998 financial crisis, for example, the owners and managers of Russia’s private oil companies feared re-nationalization.) Rather, the sequence was reversed: property rights became more stable as a result of the negotiations between the government and the private domestic oil companies to establish a new tax code that would offer both sides more secure revenue streams.

This is not meant to imply, however, that privatization to domestic investors is the right strategy for every developing country with mineral wealth. Indeed, one of the key findings of this paper is that the same domestic factors that explain why countries choose energy development strategies that either concentrate or disperse ownership in the first place are also the key to understanding why the structure of ownership matters. Simply put, private ownership will not have the hypothesized effects on institutions unless it results in the dispersion of proceeds from mineral wealth. This can only be expected to occur, however, under certain conditions -- specifically, where both the degree of alternative export potential and level of political contestation are high. As we argue above, under these conditions, state leaders are more likely to use their mineral wealth to co-opt the opposition because they face challengers with their own potential source of economic power, and thus, to divide access to this wealth among alternative political cleavages. The new actors that emerge from this transfer will then use this economic power base to exert greater political influence. Conversely, where a single cleavage dominates, the state leaders can use their existing economic power base to either seize control or prevent the development of a new economic power base, thereby preserving their monopoly on political power.

Figure 1: Variation in the Structure of Ownership, 1900-2000¹⁸



¹⁸ The data used to compile this graph is based on a subset (30) of petroleum-rich countries: Algeria, Angola, Argentina, Azerbaijan, Brazil, Cameroon, Colombia, Congo, Egypt, Gabon, Guatemala, Indonesia, Iran, Iraq, Kazakhstan, Kuwait, Libya, Malaysia, Mexico, Nigeria, Oman, Peru, Qatar, the Russian Federation, Saudi Arabia, Soviet Union, Sudan, Turkmenistan, U.A.E. (Abu Dhabi), and Uzbekistan.

Table 1: Domestic Determinants of the Structure of Ownership

		Level of Contestation	
		LOW	HIGH
Degree of Access to Alternative Export Revenue	HIGH	S ₁	P ₁
	LOW	S ₂	P ₂

Table 2: Some Empirical Evidence for Domestic Factors -- Initial Strategies

COUNTRY	DATES	ALTERNATIVE EXPORTS	POLITICAL CONTESTATION	PREDICTED OUTCOME	ACTUAL OUTCOME
*Azerbaijan	1994-2000	Low	Low	S₂	S₂
Cameroon	1976-1979	High	Low	S ₁	P ₂
*Gabon	1960-2000	Low	High	P₂	P₂
Indonesia	1949-2000	High	High	P ₁	S ₂
*Iran	1925-1941	Low	High	P₂	P₂
Iraq	1932-1948	High	Low	S ₁	P ₂
*Kazakhstan	1994-2000	Low	High	P₂	P₂
Kuwait	1938-1975	Low	Low	S ₂	P ₂
*Libya	1951-1969	Low	High	P₂	P₂
*Mexico	1859-1938	Low	High	P₂	P₂
*Nigeria	1969-1979	Low	Low	S₂	S₂
Oman	1962-2000	Low	Low	S ₂	P ₂
*Russia	1993-2000	High	High	P₁	P₁
*Sudan	1980-2000	Low	High	P₂	P₂
*Turkmenistan	1992-2000	High	Low	S₁	S₁
*Uzbekistan	1992-2000	High	Low	S₁	S₁
Venezuela	1908-1935	High	Low	S ₁	P ₂

Table 3: Some Empirical Evidence for Domestic Factors -- Nationalization

COUNTRY	Dates	Alternative Exports	Political Contestation	Predicted Outcome	Actual Outcome
*Azerbaijan	1991-2000	Low	Low	S2	S2
*Cameroon	1979-1982	High	Low	S1	S1
Indonesia	1949-2000	High	High	P1	S2
*Iraq	1972-2000	Low	Low	S2	S2
Kuwait	1975-2000	Low	Low	S2	S1
Mexico	1938-2000	Low	High	P2	S1
*Nigeria	1969-1979	Low	Low	S2	S2
*Turkmenistan	1991-2000	High	Low	S1	S1
*Uzbekistan	1991-2000	High	Low	S1	S1

Table 4: Ownership Structure and Institutional Outcomes

Ownership Structure	Primary Actors	Business-State Relationship	Incentives for Institution Building	Mode of Institution-Building	Institutional Outcome
S₁	STATE ELITES + BUREAUCRATS	BLURRED + SYMMETRICAL	CONVERGE	(IMPLICIT) BARGAINING	WEAK
S₂	STATE ELITES + FOREIGN INVESTORS	CLEAR + <i>ASYMMETRICAL</i>	<i>DIVERGE</i>	<i>COERCION</i>	<i>HYBRID</i>
P₁	STATE ELITES + DOMESTIC OWNERS	CLEAR + SYMMETRICAL	CONVERGE	(EXPLICIT) BARGAINING	STRONG
P₂	STATE ELITES + FOREIGN INVESTORS	CLEAR + <i>ASYMMETRICAL</i>	<i>DIVERGE</i>	<i>COERCION</i>	<i>HYBRID</i>

Table 5: Boundaries and Institutional Incentives

BOUNDARY	TAXATION	REGULATION
<p>Blurred</p> <p>1) Degree of fiscal transparency: Low</p> <p>2) Nature of P-A problem: Principal not identifiable; Agents collude</p> <p>3) Connection to profits: No claim</p> <p>4) Budget constraints: Soft</p>	<p>→ low transaction costs to collect taxes (for state) and to hide income (for bureaucrats) → no desire for stable tax regime</p> <p>→ no accountability + no clear criteria for evaluating managerial performance → no desire for predictability → do not prefer stable tax regime</p> <p>→ no desire to maximize returns on investment → no desire for stable tax regime</p> <p>→ no fear of bankruptcy → do not prefer stable tax regime</p>	<p>→ informal exchange -- ease of taxation for ease of stealing → prefer no regulation</p> <p>→ no incentive for monitoring → prefer no regulation</p> <p>→ all benefit from “special treatment” → prefer no regulation</p> <p>→ no desire for efficiency → prefer no internal or external monitoring</p> <p>→ no fear of bankruptcy → prefer no internal monitoring</p>
<p>Clear</p> <p>1) Degree of fiscal transparency: High</p> <p>2) Nature of P-A problem: Principal identifiable; Agents compete</p> <p>3) Connection to profits: Direct claim</p> <p>4) Budget constraints: Hard</p>	<p>→ higher transaction costs to collect taxes (for state) and to hide income, avoid excess taxation (for domestic owners) → prefer stable tax regime</p> <p>→ greater accountability + clear criteria for evaluating managerial performance → desire for predictability → prefer stable tax regime</p> <p>→ desire to maximize profits + return on investments → desire for predictability → prefer stable + broad-based tax regime</p> <p>→ fear of bankruptcy → desire for predictability → prefer stable tax regime</p>	<p>→ higher monitoring costs → prefer internal monitoring</p> <p>→ possibility of “special treatment” for one → desire for level playing field → prefer external regulation</p> <p>→ desire for efficiency → prefer internal monitoring</p> <p>→ fear of bankruptcy → prefer internal monitoring</p>

Table 6: Predicted Outcomes -- Tax Regimes (Composition and Stability)

	S₁ = WEAK	P₁ = STRONG	S₂ and P₂ = HYBRID
<u>Composition:</u>			
Personal income tax (PIT)	Decreasing reliance across sectors	Increasing reliance across sectors	Increasing reliance in energy sector; Decreasing reliance in other sectors
Corporate profit tax (CPT)	Decreasing reliance across sectors	Increasing reliance across sectors	Increasing reliance in energy sector; Decreasing reliance in other sectors
Indirect taxes	Increasing reliance across sectors	Decreasing reliance across sectors	Increasing reliance in energy sector
Sectoral taxes	Increasing reliance	Decreasing reliance	Increasing reliance
<u>Stability:</u>			
Degree of change	Frequent and significant change to tax laws	Change to tax laws is infrequent and minimal	Change to tax laws increasingly frequent and significant
Official enforcement	Arbitrary	Consistent	Arbitrary
Popular compliance	Minimal	Increasing across sectors	Significant in energy sector; Minimal in other sectors

Table 7: Divergent Energy Development Strategies in the FSU

	Foreign Involvement	
	High	Low
Private Ownership	KAZAKHSTAN (P ₂)	RUSSIAN FEDERATION (P ₁)
State Ownership	AZERBAIJAN (S ₂)	UZBEKISTAN and TURKMENISTAN (S ₁)

Table 8: Ownership Structures and Tax Regimes in the Soviet Successor States

COUNTRY	OWNERSHIP STRUCTURE	ACTUAL OUTCOME and CAUSAL MECHANISM
Uzbekistan and Turkmenistan	S₁	<p>Weak Tax Regime</p> <ul style="list-style-type: none"> ⇒ Relies exclusively on indirect taxes in all sectors; ⇒ Highly unstable and arbitrarily enforced <p>Implicit Bargaining</p> <ul style="list-style-type: none"> ⇒ Product of informal bargaining among elites
Azerbaijan	S₂	<p>Hybrid Tax Regime</p> <ul style="list-style-type: none"> ⇒ Relies on a combination of direct and indirect taxes but only in energy sector ⇒ Foreign investors increasingly subjected to arbitrary taxation <p>Coercion</p> <ul style="list-style-type: none"> ⇒ Initially dictated by foreign investors; Increasingly dictated by the President and SOCAR since 1998
Russian Federation	P₁	<p>Strong Tax Regime</p> <ul style="list-style-type: none"> ⇒ Increasing reliance on direct versus indirect taxes across sectors ⇒ Increasingly stable and consistently enforced since 1998 <p>Explicit Bargaining</p> <ul style="list-style-type: none"> ⇒ Product of series of formal negotiations among governing elites and Russian oil companies
Kazakhstan	P₂	<p>Hybrid Tax Regime</p> <ul style="list-style-type: none"> ⇒ Relies on direct and indirect taxes but only in the energy sector ⇒ Foreign investors increasingly subjected to arbitrary taxation since 1998 <p>Coercion</p> <ul style="list-style-type: none"> ⇒ Initially dictated by foreign investors; Increasingly dictated by the President and KazakhOil since 1998

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