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Introduction

Three Puzzles

Between 1950 and 1995, the Philippines, Indonesia, and Malaysia each enjoyed periods of booming timber exports. Each had forests that contained trees from the *Dipterocarpaceae* family – trees that grew tall and straight, resisted wood-boring pests, and could be milled into high-quality lumber and plywood. While Indonesia's forestry institutions were weak, the Philippines and Malaysia had relatively strong forestry institutions, at least initially. Both had forestry departments that were led by well-trained professionals, that enjoyed a high degree of political independence, and that restricted logging to sustained-yield levels.

Yet over time the forestry institutions of all three states broke down. After timber exports began to boom, the Philippine, Malaysian, and Indonesian forest departments lost their political independence; the quality of their forest policies dropped sharply; and each government began to authorize logging at ruinously high rates – as high as ten times the sustainable level. Why did the forestry institutions of these three states break down? And why did these governments become so eager to squander their forests?

The breakdown of forestry institutions in the Philippines, Malaysia, and Indonesia is the central puzzle of this book; in answering it, though, I seek to cast light on two larger puzzles. One is the puzzle of poor forest management in the developing world. Since the 1950s, virtually all developing states with commercially valuable forests – in Latin America, the Caribbean, West and Central Africa, and Southeast Asia – have logged them unsustainably. A landmark 1988 study by economists Repetto and Gillis found that across the tropics, the misuse and waste of forest resources was, in part, caused by government policies. Yet the reasons for these self-defeating policies are elusive. According to one survey, attempts to explain poor forest policies have been "extremely frustrating, with suspicious or extremely poor quality data and missing data omnipresent" (Bilsborrow and Geores 1994).

This book suggests that in the Philippines, Malaysia, and Indonesia, a boom in timber exports helped cause a decline in the quality of the state's forestry institutions and policies. This argument may at first seem paradoxical: Why should an export boom hurt a state's institutions and policies? Should not governments manage their resources with *greater* care when their commercial value rises? In fact, in developing states, resource booms are commonly followed by a decline in the quality of the state's resource institutions and policies – which points us to the book's other major puzzle.

Scores of developing states rely heavily on natural resource exports, which can range from agricultural goods to zinc. Since international markets for these goods tend to be volatile, these states periodically undergo export booms and busts, which can flood or deprive their economies of export revenues.

Since the 1950s, economists have been divided about the merits of commodity booms. Classic theories of economic development – including the "big push" theory and the "staple theory" of economic growth – argued that commodity booms would help developing states grow quickly.[1] Others warned that sharp fluctuations in resource exports would turn developing regions into "storm centers to the modern international economy" (Innis 1956: 382).

Most developing states have assembled a wide range of institutions – including marketing boards, price stabilization funds, and "stabilizing" export taxes – to ensure that resource booms turn out to be an asset, not a curse. Yet despite these institutions, governments tend to respond poorly, even perversely, to resource booms. According to Lewis (1989: 1560), "Few governments have been able to manage (commodity booms) in a manner which, ex post, seems consistent with the objectives those governments set for themselves." Collier and Gunning (1999: 51) find that positive trade shocks often lead, paradoxically, to fiscal crises in the postshock period, due to "substantial policy errors." As a result, developing states tend to be harmed by booming natural resource exports. Policy errors help turn the blessing of resource wealth into a curse.

It would not be hard for political scientists to explain why govern-

1 On the big push theory, see Rosenstein-Rodan (1943) and Murphy, Shleifer, and Vishny (1989); on the staple theory, see Watkins (1963).

ments respond badly to *negative* economic shocks. But why should they respond so poorly to *positive* shocks? Should not extra revenue make it *easier* for officeholders to govern prudently, enabling them to build support for long-term policy goals, buy off their critics, and strengthen state institutions?

This book suggests the answer is "no," but for reasons that may not be obvious.

Observers commonly offer two explanations for the ill effects of commodity booms on government policies. The first is that sudden wealth leads to short-sighted, euphoric behavior among policymakers, who thereby cease to act rationally. Nurske (1958) and Watkins (1963), for example, suggest that commodity booms produce a "get-rich-quick mentality" among businessmen and a "boom-and-bust" psychology among policymakers; Karl (1997) argues that Venezuela's oil boom caused a type of "petromania" among policymakers. Similar arguments have been used to explain the perverse forest policies of the Philippines, Malaysia, and Indonesia. According to one foreign consultant, the Malaysian government's short-sighted forest policies were caused by the jubilant belief that "since there seems no obvious resource shortage today there is no apparent need for concern for the future" (Baird 1987: 12).

The second argument is that on receiving commodity windfalls, governments are overwhelmed by pressures from influential individuals, classes, interest groups, or other "rent seekers." In states with weak political and legal institutions, these pressures are said to lead to the breakdown of fiscal discipline and the dissipation of the windfall on patronage, corruption, and pork barrel projects. Tornell and Lane (1999) use a formal model to develop this argument, showing how a positive shock can be dissipated when "powerful groups" attack a state with a "weak legal-political infrastructure." Observers have used a similar argument to account for the harmful forest policies of Southeast Asia's governments – suggesting that powerful logging firms, and the clients of leading politicians, manipulated government policies to capture control of the windfall (Rush 1991; Broad 1995; Dauvergne 1997).

This book suggests that while both of these effects may occur, they are insufficient to explain the postboom policy failures of many developing states, including states whose institutions were previously strong. It offers a third explanation: Windfalls encourage politicians themselves to engage in a type of rent-seeking behavior, which I call *rent seizing*. I define rent seizing as *efforts by state actors to gain the right to allocate rents.*

Scholars generally recognize two types of rent seeking: rent creation, in which firms seek rents created by the state, by bribing politicians and bureaucrats; and rent extraction, in which politicians and bureaucrats seek rents held by firms, by threatening firms with costly regulations.[2] This book identifies a third type of rent seeking – rent seizing – which occurs when state actors seek rents that are held by state institutions.

There are two key differences between standard types of rent seeking (including both rent creation and rent extraction) and rent seizing. First, rent seekers seek out rents; rent seizers seek the right to allocate rents to others. Rent seizing might be seen as "supply-side" rent seeking: when private actors compete to acquire rents, state officials compete to supply them.

Second, when private actors engage in rent seeking, they usually confront a battery of institutional devices that were designed to thwart them – such as anticorruption laws, regulations that promote transparency, bureaucratic insulation from political pressures, and meritocratic norms. But unlike private actors, state actors may hold rule-making authority over the institutions that would otherwise restrain them. For rent seekers, state institutions are exogenous; but for rent-seizing politicians, state institutions are endogenous and can hence be dismantled when they obstruct the rent-seeking process. Rent-seizing politicians need not storm the fortress: They are already inside the walls.

For scholars of institutions, international political economy, natural resource policymaking, and Southeast Asia, this book makes a series of interlinked claims. At the broadest level it addresses a neglected question about institutional change. In recent years, the study of institutions has received new attention across the social sciences. One body of scholarship has tried to explain how institutions develop.[3] A second is concerned with how they become stable.[4] Scholars of the developing world, however, are painfully familiar with a third problem: Ostensibly stable institutions may unexpectedly collapse. Of course, state institutions may break down for many reasons. This book seeks to explain a single type

2 See Tullock (1967); Krueger (1974); Bhagwati and Srinivasan (1980); Tollison (1982); and McChesney (1987).
3 See, for example, North and Thomas (1973); Libecap (1989); Riker and Sened (1991); Steinmo, Thelen, and Longstreth (1992); Knight (1992); Greif, Milgrom, and Weingast (1994).
4 See, for example, Axelrod (1984); March and Olsen (1984); North (1990); Tsebelis (1990).

of institutional collapse, which comes about when institutions become endogenous to a rent-seeking process.

The book also addresses the longstanding question of how international economic forces influence domestic political institutions. The question is of special concern for developing states, which often depend heavily on exports for growth, and tend to be more vulnerable to international market forces. Developing states that export primary commodities are perhaps the most vulnerable of all, since global commodity markets are exceptionally volatile. For decades, scholars have tried to tease out the causal links between international markets and domestic policy failures in commodity-exporting states – faulting declining terms of trade, multinational corporations, class alliances between First World and Third World elites, and the high asset-specificity of extractive industries.[5] This book suggests that international markets can harm developing states through a different mechanism, by creating positive economic shocks that lead to rent seizing and institutional breakdown.

The book also speaks to the problem of natural resource policymaking in developing states. Three-quarters of all developing states rely on natural resource exports for at least half of their export income. Yet natural resource policy failures are ubiquitous; most developing states govern their resources so poorly that the blessing of resource wealth routinely becomes a curse (Sachs and Warner 1995; Ross 1999). There are many types of natural resource policy failures (Ascher 1999). This book scrutinizes one: the policy failures caused by international market shocks. States that hope to use their natural resource wealth to promote development must find ways to mitigate this problem. Some options are discussed in the conclusion.

Finally and most centrally, this book concerns the devastation of Southeast Asia's forests and forest-dwelling peoples. Other scholars have described the loss of the once-valuable forests of the Philippines, Malaysia, and Indonesia, and the harm done to the people who lived in them. Yet they have not fully explained why these governments did so much to promote the misuse of their own resources.

Some observers have blamed these policy failures on ignorance or myopia, suggesting that government officials lacked the information, training, or intelligence to manage their forests on a sustained-yield basis. One of the central goals of this book is to refute this claim. The case

5 See, for example, Baran (1952); Gunder Frank (1966); Wallerstein (1974); Cardoso and Faletto (1979); Shafer (1994).

studies show that both the Philippines and Malaysia had strong forestry institutions until their timber booms began – institutions designed to thwart corruption and political interference, and to manage the forests on a sustained-yield basis. The cases also use government documents, many previously classified, to show that since the 1950s the Philippine, Malaysian, and Indonesian governments have been well informed about the dangers of forest misuse. Indeed, for half a century, leading foresters from each state, and from international organizations, have pleaded with these governments to manage their forests in accordance with sustained-yield principles. Once their timber booms began, these pleas were ignored.

Other observers have argued that nonstate actors, including multinational firms and domestic rent seekers, pressured these governments to adopt the logging policies that eventually brought their forests to ruin. This book confirms some of these accounts.

It also shows, however, that a great deal of damage was caused by rent seizing, as government officials dismantled their states' forestry institutions to obtain control of the timber rents. When timber prices began to create supranormal profits (i.e., rents) for logging firms, state officials began to disassemble the legal and regulatory mechanisms that had previously served to protect the forests and its inhabitants: mechanisms that had kept logging to sustained-yield levels and protected fragile soils and watersheds (in the Philippines and Malaysia); that had guarded the traditional rights of forest dwellers (in Malaysia and Indonesia); and that had insulated the forestry bureaucracy from political pressures (in the Philippines and Malaysia). At the moment these institutions were most needed, they were taken apart. The result was the devastation of Southeast Asia's forests and forest-dwelling peoples.

OUTLINE OF THE BOOK

This book has eight chapters. Chapter 2 maps out the broad domain of the problem. It describes the number and characteristics of states that rely heavily on natural resource exports, the types of institutions they have, and how they respond to export booms.

Chapter 3 discusses two alternative explanations for the policy failures of resource exporters. It then develops a theory of rent seizing, specifying its key assumptions, how it differs from other types of rent seeking, and what its observable implications are. It also explains the use of the Philippine, Malaysian, and Indonesian timber sectors for the case studies.

Chapters 4 through 7 are case studies of the forestry institutions of the Philippines, the Malaysian states of Sabah and Sarawak, and Indonesia.[6] Each chapter describes fluctuations in timber revenues (the independent variable); the subsequent rent-seizing behavior of state actors (the causal mechanism); and the resulting breakdown in the institutions of sustained-yield forestry (the dependent variable). Each also considers other explanations for the weakening or breakdown of the state's forestry institutions, including myopia and pressure from nonstate actors.

Chapter 8 is the conclusion. It summarizes the findings of the four case studies, and revisits the hypotheses spelled out in Chapter 3. It also describes some of the book's implications for the protection of tropical forests, the political economy of development, and the study of political institutions and rent seeking.

6 In Malaysia, forestry policies and institutions reside at the state level, rather than the federal level. Sabah and Sarawak are Malaysia's two largest states and harbor most of its forest resources; they also hold an exceptional degree of autonomy from the federal government in Kuala Lumpur. Chapters 5 and 6, consequently, focus on the independent timber booms of Sabah and Sarawak.

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The Problem of Resource Booms

Before explaining *why* resource booms lead to the breakdown of institutions, it is important to define my terms and map out the domain of the problem. This chapter describes some basic facts about states that rely heavily on the export of natural resources: it explains what commodity booms are, and how they can create rents; it describes the types of institutions that developing states use to manage their commodity sectors, and to cope with export booms; and it reviews earlier research on the performance of these institutions.

The chapter has three central points: many developing states face periodic booms in their natural resource exports; many of these states have institutions that include features designed to help manage these booms; and despite these institutions, states respond poorly to resource booms.

It may be helpful to mention some of the claims this chapter does *not* make. It does not claim that all developing states undergo natural resource booms. It does not claim that all booms are followed by institutional collapses. It does not suggest that resource booms are the only source, or even the principal source of failure in these institutions.[1] Finally, it does not try to prove that resource booms cause institutional breakdowns: that is the task of the case studies in Chapters 4 through 7. This chapter lays out the scope of the problem. The rest of the book examines its source.

1 In the developing world, commodity institutions suffer from a wide range of maladies, apart from the ones described here. See, for example, Lele and Christiansen (1989); Ascher and Healy (1990); Auty (1990, 1993); Ascher (1999); Ross (1999).

NATURAL RESOURCE EXPORTERS

How many states depend on natural resource exports?

Table 2.1 provides some basic data on the reliance of states, by region and income, on the export of natural resources. Three points are noteworthy. First, reliance on resource exports varies widely by region: the highest concentrations of resource-reliant states are in Africa, the Middle East, and Latin America; the lowest concentrations are in East Asia and

Table 2.1. *States and Resource Exports, 1970 and 1990*

Region	Number of States	Over 50% Total Exports[a]	Resource Exports 1970[b]	Resource Exports 1990
South America	13	11	93.2	69.8
Central America, Caribbean	20	17	83.6	54.0
Sub-Saharan Africa	45	41	94.3	86.6
North Africa	6	3	92.9	86.6
Middle East	14	10	99.8	83.1
South and East Asia[c]	24	9	53.7	21.4
Oceania	9	7	67.4	72.5
Least Developed States	45	38	86.6	83.6
All Developing States	131	98	80.4	44.6
East Europe and Former Soviet Union	8	2	31.0	41.5
Advanced Industrial States	24	4	25.3	18.6
ALL STATES	163	104	36.2	25.9

[a] Number of states that receive over 50 percent of their export income from unprocessed natural resources, based on a three-year average (1989–91). The 1989–91 average is the most recent available from the United Nations Conference on Trade and Development.

[b] Export of natural resources as a percentage of regional exports.

[c] Excluding Japan.

Note: Commodity or resource exports, defined by the United Nations Conference on Trade and Development (UNCTAD), includes unprocessed minerals (including petroleum), agricultural products, and timber. Figures listed here include only states with populations over 100,000.

Source: Compiled from UNCTAD (1995).

Europe. Second, there is a rough correlation between level of development and natural resource reliance. The advanced industrial states and the high-growth states of East Asia rely little on resource exports, while the least developed states are exceptionally dependent on them. Third, the developing world as a whole has grown less dependent on resource exports. From 1970 to 1990, the number of developing states that received at least half of their export income from primary commodities dropped from 116 (89 percent) to 98 (75 percent); the fraction of the developing world's export income derived from commodities dropped from 80 to 45 percent. Yet there was little change in the dependence of the least developed states, on resource exports.

RESOURCE BOOMS

A resource boom is any sharp financial gain generated by the export of an unprocessed commodity, including hard rock minerals, petroleum, agricultural products, fish and animal products, and timber. It may be created by either an increase in a resource's export price, or by an increase in the quantity exported. In either case, resource booms can flood an economy with new revenues – a commodity or resource windfall.

Most commodity windfalls produce economic rents.[2] Rents are supranormal profits – profits in excess of the normal cost of extracting (or producing) a good, which includes a "normal" profit. The suppliers of natural resources can earn rents in three ways: They may earn scarcity rents if they control resources that are in demand, and have inelastic supply curves; they can earn differential rents if they control deposits of unusually high quality, or unusually low extraction costs; and they can earn monopoly rents if they are a monopoly or oligopology supplier. Few if any natural resource exporters have monopolies and can earn monopoly rents. Some earn differential rents. When resource prices boom, exporters earn scarcity rents.

Most resource booms are caused by the exceptional volatility of international commodity markets. Both the supply of and demand for basic

2 Scholars have long been concerned about the political and economic consequences of rents. In *Principles of Political Economy* (1848) John Stuart Mill suggested that the theory of rent

> is one of the cardinal doctrines of political economy; and until it was understood, no consistent explanation could be given of many of the more complicated industrial phenomena. The evidence of its truth will be manifested with a great increase of clearness. (XVI:3)