The Perils of the Petro-State: Reflections on the Paradox of Plenty

Terry Lynn Karl

Think back to the years 1973 and 1974 when the rapid and unexpected fourfold increase in the price of crude oil created the first global energy crisis. As the most massive transfer of wealth ever to occur without war began to work its way through the international system, wild predictions were made about the potential skyrocketing wealth of oil exporting countries.¹ While the industrialized countries trembled at the prospect that the Organization of Petroleum Exporting Countries (OPEC) might become the world’s most powerful banker, the oil exporters² were euphoric.

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Prosperity, in their view, would provide a sustainable base for a post-oil economy, full employment, national security and political stability; in short, it would permit oil-exporters to join the countries of the First World. Thus, the Shah of Iran promised his people “a Great Civilization,” while Venezuela’s President Carlos Andrés Pérez forecast La Gran Venezuela (The Great Venezuela) in the near future. “Someday soon,” Pérez predicted in a conversation with this author, “Americans will be driving cars built by our workers in our modern factories, with bumpers made from our

¹ Jahangir Amuzegar claims that the World Bank, for example, predicted that OPEC gains would exceed $1,200 billion by 1985—a far cry from the almost $15 billion dollars in current account deficits the capital-deficient exporters would show as oil prices plunged in 1986. Jahangir Amuzegar, Managing the Oil Wealth: OPEC’s Windfalls and Pitfalls (London: I.B. Tauris Publishers, 1999) p. ix.
² Unless otherwise stated, the term “oil exporters” in this article refers only to the members of OPEC and Mexico.
aluminum, and gasoline made from our oil. And we will look like you.”

Such predictions have proved to be the modern version of the Midas myth. Twenty-five years after the 1970s boom, and despite two other major price hikes in the 1990s, most oil-exporting countries are in crisis, especially the capital-deficient ones. Plagued by bottlenecks and breakdowns in production, capital flight, drastic declines in efficiency, double-digit inflation, overvalued currencies and budget deficits, they urgently seek the foreign capital and joint ventures that they so vehemently rejected during the nationalizations of oil in the 1970s. As their economic performance worsens and their oil and debt dependence increases to levels higher than in the pre-bonanza years, most oil exporters’ political stability also has suffered. From Nigeria and Venezuela to Indonesia and Algeria, riots, conflict and outright civil war threaten the populations of OPEC countries. Just as gold once tainted King Midas’ life despite his expectations to the contrary, oil seemed to “petrolize” the economy and polity of these countries. “It is the devil’s excrement,” OPEC’s founder, Juan Pablo Pérez Alfonzo, observed. “We are drowning in the devil’s excrement.”

What I have elsewhere called “the paradox of plenty” poses a significant puzzle for both scholars and policymakers. That oil-rich countries—countries as dissimilar as Venezuela, Iran, Nigeria, Algeria and Indonesia—should end up in profound economic and political crisis is remarkable. That they also stand at strikingly similar junctures despite all their differences calls for an explanation. These countries are heterogeneous in virtually every respect except oil: they are physically diverse (Algeria is more than 100 times larger than tiny Kuwait) and demographically different (Indonesia’s population is 132 times that of Qatar); they vary in their oil reserves (Saudi Arabia has 265 times as much as Gabon), not to mention their other factor endowments. Their standards of living showed enormous discrepancies at the time of the 1974 boom, with per capita income as low as $170 in Indonesia.

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3 This interview, conducted by the author in Caracas in the midst of a second massive boom in 1979, is illustrative of the hopes of the time. (Caracas, Venezuela: March 1979).

4 Capital-deficient countries have relatively high populations and relatively low oil reserves when compared to the United Arab Emirates, Kuwait or Saudi Arabia. They include Nigeria, Algeria, Indonesia, Iran, Venezuela, Ecuador and Mexico. For more on this distinction, see Terry Lynn Karl, The Paradox of Plenty: Oil Booms and Petro-States (Berkeley, CA: University of California Press, 1997).

5 While Pérez Alfonzo used this phrase in an interview with the author (Caracas, Venezuela: July 1976), it is also the title of one of his books.

6 Karl (1997).
compared with $11,000 in the United Arab Emirates, and their political regimes ranged from democracy (Venezuela and Ecuador) to military rule (Iraq and often Nigeria), from strict Islamic theocracies (Saudi Arabia and post-1979 Iran) to nominally socialist one-party systems (Algeria). There are profound differences between Nigeria, which falls at the worst end of the continuum, and Indonesia, which has fared better. That is not to argue that oil countries are worse off than many of their non-oil counterparts, which may or may not be the case depending on the comparisons involved. But the path by which they have arrived at their current troubles is different from those countries without oil, and despite their riches, they have arrived at similar crisis points.

This puzzle has global implications. If petroleum booms are likely to produce poverty, inequality and political crises inside oil-exporting countries—which seems to be the case judging from the past two decades—these crises subsequently produce new oil shocks that may have profound and unforeseen consequences. Oil prices rose sharply three times in the 1970s, and two of these shocks (the 1971 “Libya jump” and the 1979 “Iran boom”) were closely associated with a political crisis inside a major oil-exporting state. In 1990 the market was disrupted and prices rose sharply again as a result of Iraq’s attempt to overcome its domestic problems by invading neighboring Kuwait. Imagine the consequences of instability in Saudi Arabia or elsewhere in the Persian Gulf—an area that controls a full 60 percent of the world’s known oil reserves! Crises within oil exporters are essential to understand, not only because they shape the lives of people within their borders or regions, but also because they can reverberate powerfully throughout world markets and even threaten global peace.

How does oil affect the political economy of producer countries? What is the record of the OPEC countries in the 25 years since the 1970s boom? Is this record of development a fluke that can be overcome by learning from the past, or are the same patterns likely to repeat themselves where new discoveries may occur? And what might be the consequences of more perverse development outcomes in the future?

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For discussions of these differences, see Karl (1997), especially chaps. 3 and 9 and Amuzegar (1999), chap. 1.
Petro-states are not like other states. While they share many of the development patterns of other developing countries, especially mineral exporters, the economies and polities of countries dependent on oil are rapidly and relentlessly shaped by the influx of petrodollars in a manner that sets them apart from other states. Oil wealth molds institutions more dramatically than development specialists ever imagined or even seem to understand. This is especially true if petroleum exploitation coincides with modern state-building, as has so often been the case. Where this historical coincidence occurs, petro-states become marked by especially skewed institutional capacities. The initial bargaining between foreign companies anxious to secure new sources of crude and local rulers eager to cement their own bases of support—whatever their mutual benefits—leaves a legacy of overly-centralized political power, strong networks of complicity between public and private sector actors, highly uneven mineral-based development subsidized by oil rents and the replacement of domestic tax revenues and other sources of earned income by petrodollars. In effect, this alters the frameworks for decision-making in a manner that further encourages and reinforces these initial patterns, producing a vicious cycle of negative development outcomes.

That this relatively uniform development occurs in settings that are remarkably heterogeneous at the outset is due to the one commonality shared by these countries—a set of properties arising from the exploitation of petroleum. The petro-state is simply more dependent on a single commodity than any other state, and the exploitation of this commodity is more depletable, more capital-intensive, more enclave-oriented, more centralized in the state and more rent-producing than any other—all of which bodes ominously for successful development. The main patterns of oil exporters flow directly from such properties: the over-reliance on petroleum revenues as a mainstay of virtually all economic activity, which tends to put the needs of the oil industry above all else; the lack of productive linkages and the dominance of fiscal ones; the extreme partiality for highly capital-intensive heavy industry coupled with a structural bias against agriculture and other export

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8 The argument presented in this section is drawn from Karl (1997), where it is elucidated more fully and substantiated through empirical evidence. Other parts can also be found in Terry Lynn Karl, "Crude Calculations: OPEC Lessons for Caspian Leaders," in Energy and Politics in Central Asia and the Caucasus, ed. Bruce Aker et al. (Lanham, MD: Rowman & Littlefield Publishers, forthcoming).
activities; the perceived necessity to accelerate development very rapidly "before the oil runs out"; and the primacy of the state in the ownership and disposition of oil revenues.

These patterns have a self-reinforcing internal logic. In the beginning, both the requirements of oil exploitation and the depletability of the resource necessitate a highly-centralized authority, if only to give foreign capital a bargaining partner. Whether by law or custom, oil rents accrue to the state, and because oil belongs to the nation as a whole, one of the key tasks of this authority ostensibly becomes the search for viable productive alternatives to petroleum-led development through the use of this fiscal advantage. But this very fiscal advantage tends to foster consumption linkages while overwhelming the productive linkages so necessary for generating sustainable economies. At the same time, it blocks self-correcting mechanisms, thereby fostering continued dependence on petrodollars.

"Petromania" further reinforces this oil logic. When oil monies first come on stream, or when booms occur, rapid petrodollar flows encourage new belief systems about the expansive role of the public sector, new modes of behavior and new vested interests—both inside and outside government. In the 1970s and early 1980s, for example, oil wealth fueled the ambitions of political leaders fortunate enough to possess it. Not only did these rulers believe they could finance their major development projects at home, but they could also invest or buy resources and protection abroad. Thanks to black gold, rapid affluence would be attained without resorting to the forced savings, austerity programs or escalating deficit spending that marked their counterparts in the Third World.

Such "petromania" is by no means confined to rulers. The pernicious access to easy money weakens traditional work ethics and reduces incentives for entrepreneurship, lowering financial discipline within bureaucracies and leading to reckless budgetary practices. Most importantly, it preempts efforts to mobilize domestic resources through taxation, reduces tolerance for austerity and produces a dangerous reliance upon the state for the resolution of all problems. This in turn creates more dependence on oil revenues, and it requires an even more substantial degree of state involvement in the private sector.

Put this way, the moral hazard problem and the dangers of

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crony capitalism become apparent. What distinguishes oil states from other states, above all else, is their addiction to oil rents. Where this oil addiction takes hold, a skewed set of both political and market incentives so penetrate all aspects of life that almost anything is eventually up for sale. Actors in oil states do not behave the same as they do elsewhere; they simply don’t have to. Oil companies, for example, do not assess political risk in the ways that many other firms do. They will continue to operate in the midst of civil war (Angola), where guerrillas or drug lords attack pipelines and company executives (Colombia), and even where widespread regional unrest threatens stability (the Caspian Basin). Nor do domestic entrepreneurs, labor leaders or political leaders make their calculations according to many of the usual rules. Where oil is the focus of both domestic and international competition for rents, the stakes are simply too high. Not only are billions of dollars up for grabs, but they generally circulate in the context of weak administrative structures, insecure property rights, nonexistent judicial constraints, deep divisions and strong political ambitions. This is not the formula for economic efficiency.

In this respect, petro-states are like other rentier states, drawing their economic power and political authority from their dual capacity to extract rents externally from the global environment and subsequently to distribute these revenues internally. But they are rentier states par excellence: not only does petroleum provide exceptionally high levels of rents over a long period of time, but it also facilitates international borrowing, thereby perpetuating the capacity to live beyond their means. This permits the leaders of petro-states to avoid badly needed structural changes far longer than other developing countries, which are reined in more quickly when their macroeconomic indicators show trouble. But with oil as collateral, petro-states are seldom forced to adapt—and never on time. In this sense, petrodollars “lock-in” and reinforce previous oil-based development choices, producing institutional rigidity and high barriers to reform. They also encourage a policy style marked by an exaggerated tendency to throw money at problems or, when this is not possible, to defer hard choices until the next oil boom. But problems that are constantly deferred pile up and worsen. As a result, change—when it finally does come—is provoked only by profound political and economic crises.

That petro-states are unable to adjust to new circumstances and lack the policy innovation and flexibility essential to successful development is directly linked to the perverse incentive structure shaping the behaviors of both politicians and business leaders. In virtually all oil-exporting developing countries, both private
economic power and political authority rest on the dual capacity to (1) extract rents (payments for oil) externally from the global energy environment and (2) distribute them internally using political criteria as the central mechanism of allocation. This creates an exceptionally close linkage between economic and political power, developing networks of complicity based on the classic exchange between the right to rule and the right to make money. It also tightly links economic and political outcomes in a manner akin to former socialist countries—a reality that seems to elude most observers.

In effect, rulers of oil exporters have no immediate incentives to be frugal, efficient and cautious in their policymaking, and they have no reason to decentralize power to other stakeholders. To the contrary, revenues pouring into a highly-concentrated structure of power leads to further concentration, and they encourage rentier networks between politicians and capitalists. Rather than avoiding the hasty industrialization, profligate overspending and increased domestic consumption that marked the OPEC countries (as development economists advocate); or checking the rising dominance of the state over the economy (as neoliberals advise); or promoting judicial reform, financial transparency and "good governance" (as both the U.S. Agency for International Development and the World Bank urge), political leaders find that they can ward off immediate political and economic problems by doing precisely the opposite.

It is precisely this framework for decision-making, both constructed by and subsequently based upon the highly politicized allocation of rents, that explains the puzzle of the paradox of plenty: that is, why different oil-exporting governments—operating in contexts that differ across regime type, geo-strategic considerations, social structure, culture and size—choose common development paths, sustain similar trajectories and produce generally perverse outcomes. Instead of economic efficiency or political learning, petrodollars are substituted for statecraft. Where this occurs, the capacity to resist demands is eroded and the relative insulation of policymakers is undermined. In effect, rulers lose the capacity to say no. This is not because leaders in oil-exporting countries do not understand what might be in their own interests. Rather, at least in the short run, they may understand it only too well.

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10 As Finance Minister Hector Hurtado of Venezuela once remarked to this author, "How do you tell someone powerful that they can't have any money or that there is no money when they know that oil means you have it or you can get it?" (Caracas, Venezuela: Summer 1979).
THE RECORD OF OPEC

The political and economic performance of the OPEC countries in the wake of three oil booms is eloquent testimony to this structural trap. What is most startling in examining their record in the two decades after the 1970s oil boom is that virtually all of these countries, to varying degrees, failed to translate their soaring gross domestic product (GDP) into corresponding improvements in their peoples' welfare. Instead, faced with foundering agricultural and manufacturing sectors, collapsed banking systems and decreasing non-oil exports, they actually looked worse on a number of key indicators than many non-oil countries that had struggled to adjust to the increase in their fuel bills. By the mid-1990s the annual deficit of goods and services of the OPEC countries had become one of the largest in the developing world. All had become more heavily indebted and most had become more dependent on a single export than ever before. In addition, all of the OPEC countries faced the most serious austerity of the past four decades.¹¹

A closer look at available data reveals a surprisingly dismal picture. In economic growth, OPEC members as a whole (except Indonesia) had an average annual growth rate of real GDP from 1974 to 1994 that was lower than their annual growth rate from 1960 to 1973, prior to the booms.¹²

As a result of disappointing growth and population increases, living standards plummeted. Most of the members of OPEC experienced a fall in their living standards in at least 10 years of the two-decade period, while income maldistribution, deepening poverty and inequality affected most countries. More graphically, Venezuela, Iraq, Kuwait, Libya and Saudi Arabia have seen real per capita incomes fall to levels not seen since the 1960s, while Algeria, Iran and Nigeria's incomes have plunged to the levels of 1975.

Price stability and budgetary discipline suffered in the wake of the booms. OPEC countries are now plagued with double-digit inflation (with the exception of the small Persian Gulf monarchies), especially those that had multiple currency rates and trade restrictions. Almost all OPEC countries incurred budget deficits year after year, with Algeria topping the list, followed by Iran,


¹² The recent Indonesian economic crisis began after this 20-year period, but subsequent events there further confirm this pattern. Amuzegar (1999), p. 235.
Indonesia, Nigeria, Saudi Arabia, Ecuador, Libya and Qatar. Even the capital surplus countries of the Persian Gulf are in the red.

As for external debt, which was negligible (except for Mexico) before the boom, all OPEC countries joined the ranks of the heavily indebted. More astonishing, in the midst of this massive international transfer of petrodollars, they borrowed more and faster than the world’s least-developed countries that are not oil producers.

In the area of diversification or “sowing the petroleum,” the results are a long way from the original aspirations of governments. While almost all OPEC countries reduced their reliance on the oil sector, this reduction translated into a sharp rise in the share of the service sector and an abrupt decline or stagnation of agriculture.

Finally, the prospects for sustaining high growth do not look good. This is due not only to reliance on an exhaustible resource, but also to some less apparent but generally non-viable costs. OPEC members, for example, seem to have spent as much as 10.4 percent of their total gross national product (GNP) on defense, as compared with 3.3 percent spent by the Organisation for Economic Cooperation and Development (OECD) countries. Their annual share of military expenditures as a percent of total government expenditures was also three times as high. Waste is also evident in the quantity of poorly designed projects and especially in spiraling corruption. While there are no reliable estimates of corruption, every OPEC country has been rife with charges of bribery and illicit deals. Transparency International’s Corruption Index lists Nigeria as the world’s most corrupt country, followed by other OPEC members like Indonesia, Venezuela, Algeria, Iran and Saudi Arabia. Moreover, there are serious environmental problems in the form of high levels of air pollution from high-sulfur fuel oil, freshwater depletion, deforestation and pasture erosion—and especially water pollution from the overuse of petrochemical pesticides—that threaten sustainability.

\[ \text{Karl (1997), p. 255.} \]
\[ \text{ibid., p. 262.} \]
\[ \text{Data taken from web page of Transparency International, at http://www.transparency.de (30 June 1999).} \]
\[ \text{Private estimates assert that renewable water resources per capita fell by a whopping 72 percent in Libya and Saudi Arabia, 94 percent in the United Arab Emirates and 57 percent in Algeria due to contamination and overuse in agriculture. Note that figures for military expenditures are unreliable since data on the arms trade and other expenditures are not published. There is also enormous variation between countries here military spending as a share of GNP in the Persian Gulf is the highest in the world, while it is relatively low in Venezuela. See Amuzegar (1999), p. 179.} \]
There were also some positive outcomes. Government spending produced notable achievements, at least for a time, which were manifest in increased employment opportunities, generous pension plans and improved public welfare. As a group, the OPEC nations allocated a larger share of their national income to education and health than any other group of developing countries; improvements in these areas, though not commensurate with spending, were significant. Investments in infrastructure were massive and showed results, even if the magnitude of improvement was not proportional to the money spent, and the quality of services was low. Telecommunications, paved roads, railways and power-generating capacity increased considerably.

There were significant variations in performance as well. Indonesia has achieved the best results for many reasons: it was less dependent on oil revenues and, given Suharto’s virtual obsession with rice self-sufficiency, protected its agricultural sector more effectively than did other countries. Because the International Monetary Fund (IMF) had intervened in Indonesia immediately prior to the 1973 oil boom, the country could not embark on the borrowing binge (at least to the same extent) that soon hurt other oil exporters. Finally, because a balanced budget law was built into its legal framework prior to the boom, it could not spend as freely as its OPEC counterparts. Nigeria, which used oil revenues to paper over growing ethnic and regional tensions, represented the other extreme.

But these differences, however significant, do not alter the fact that the average annual real growth of GDP of the OPEC countries in the 20 years following the early 1970s oil boom was actually less than their annual GDP growth rate for the decade prior to the boom. As a result, as prices fell in the mid-1980s, these countries were plunged into deep austerity crises.

Political turmoil accompanied this poor economic record. Regardless of whether prices boomed or went bust, or whether their political regimes were democratic or authoritarian, the abrupt change in circumstances severely tested the polities of all exporting countries. Each regime had built its political support largely through the lubricant of petrodollar wealth in a process that took place primarily through bargaining between the executive and private interests. To the extent that the allocation of petrodollars undermined other bases of authority, the

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17 Amuzegar notes that in a 20-year period average adult literacy improved from 47 percent in 1974-1975 to 72 percent in 1993-1994, and that school enrollments at all levels rose considerably. See ibid., p. 170.
ratcheting up of oil prices brought immediate instability. While an overabundance of petrodollars sparked new fights over patterns of assignment, scarcity exacerbated any existing tensions that had been kept under control by the circulation of rents. Thus both booms and busts were especially destabilizing. Few regimes could weather such turmoil, although the evidence demonstrates that imperfect democracies managed to avoid the wars and revolutions that marked oil autocracies. In the earliest and one of the most dramatic cases, the Shah of Iran was overthrown in an Islamic revolution that bitterly criticized the rapid industrialization and Westernization of his “Great Civilization.” Nigeria oscillated between military and civilian rule, almost in tandem with shifts in oil prices, without being able to consolidate either. As oil prices dropped, Algeria plunged into civil war. Indonesia’s Suharto regime, once viewed as an exception to poor management of oil resources, managed to survive the longest, in part because oil played a less prominent role in the economy. But it too eventually foundered on corruption and crony capitalism. While still remaining Latin America’s second oldest democracy, Venezuela witnessed riots, an attempted military coup and the demise of its pact ed political party system. In this strictly political sense, oil indeed seemed to be the devil’s excrement.

THE LESSON OF THE OPEC EXPERIENCE: THE STRUCTURAL TRAP OF OIL-LED DEVELOPMENT

What did OPEC leaders do—or not do—to produce such poor development outcomes? Because all OPEC governments were worried about the exhaustibility of their resources, they declared their intention to “sow the petroleum”: that is, to create a sustainable basis for a post-oil economy through the promotion of heavy industry, the modernization of infrastructure and where necessary, investment in defense. Some countries, such as Venezuela, initially seemed to understand that the avalanche of money descending on their states posed dramatic absorption problems and consequently set up investment funds to hold petrodollars outside the country where they could not produce

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18 See Karl (1997), especially chap. 9.
19 Venezuela’s party system was founded on the principle of pact-making. This meant that its leading political parties made foundational agreements to limit the degree of competition between them and the types of issues that were raised in the electoral arena. These arrangements have dramatically unraveled, resulting in the election of a former military leader who previously had attempted a coup against the main political parties.
adverse effects. Such well-intended efforts, however, quickly came to naught. Whatever “savings mentality” that may have briefly existed was rapidly overcome by a spending frenzy and rampant rent-seeking. In the context of petromania, these funds were soon reintroduced in the domestic economy through government spending. But as petrodollar addiction grew, even boom revenues proved insufficient. With foreign bankers touting the wisdom of leaving oil in the ground and financing development through what were then low interest loans, the oil exporters borrowed more and at a faster rate than countries not dependent on oil revenues.\textsuperscript{20}

The little we know about how oil exporters actually spent their money is especially instructive.\textsuperscript{21} Given that petrodollars tended to follow patterns of political allocation, it is not surprising that approximately 65 to 75 percent of the post-1974 GDP went toward public and private consumption—aimed first and foremost toward the key constituencies supporting the rulers of oil states. Much of this took place through subsidies to social groups, friends, family and political supporters of the government, and much through the awarding of contracts on what were most often non-market criteria.\textsuperscript{22} The remaining portion—20 to 35 percent of national output—was either invested or used to build sophisticated militaries.

Economists and experts from international lending organizations, who often paid little attention to allocation patterns as long as macroeconomic indicators seemed to be in balance, now consistently attribute the poor economic performance of rich oil exporters to the mismanagement of resources by governments or to the overextended role of the state. More important, they often see little relationship between this economic performance and the dramatic political changes that have taken place inside countries like Iran, Venezuela, Indonesia, Algeria or Nigeria.\textsuperscript{23}

\textsuperscript{20} Karl (1997), p. 29.

\textsuperscript{21} One manifestation of the chaos caused by oil booms is that there is no accounting of the utilization of oil windfalls by the OPEC countries themselves. These figures are estimates used by Gelb (1988) and Jahangir Amuzegar, “OPEC as Omen,” \textit{Foreign Affairs}, 77, no. 6 (November/December, 1998).

\textsuperscript{22} Petrodollars paid for consumer price subsidies on fuel, housing, public services and utilities. In most countries, subsidies to the private sector were even greater, especially through electricity, transport, communications, tariff barriers and the like. Amuzegar claims that subsidies in the Persian Gulf ran as high as 10 to 20 percent of GNP in some years. See Amuzegar (1998), p. 101.

\textsuperscript{23} Jahangir Amuzegar, for example, who is an international economic consultant and the former finance minister of Iran under the Shah, rejects this connection. He writes: “Apart from a number of traumas \textit{unrelated to oil}—a revolution in Iran, two bloody and ruinous wars between Iraq and its neighbors and coups in Nigeria, Qatar and Venezuela—the OPEC members’ own miscalculations and mismanagement
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These experts do not realize that such economically inefficient decision-making is not a miscalculation when viewed politically. Instead, it is an integral part of the calculation of rulers to retain their support by distributing petrodollars to their friends and allies. Nor do they understand that economic reforms can seldom be accomplished short of an abrupt regime change—and even this does not guarantee the sort of policies that social scientists recommend or expect from “rational” actors. Instead, the rationality of petro-states is an explicitly rentier one, with little to block such clientelistic behavior.

Thus, forces deeper than economic mismanagement and poor decision-making help to explain the surprisingly poor performance of oil-exporters. In part, their troubles stem from the “Dutch Disease,” first observed in the Netherlands during their natural gas booms of the 1960s, which describes how primary export windfalls push up the real exchange rate. This renders most other exports uncompetitive; in this context the agriculture and manufacturing sectors tend to languish. Persistent Dutch Disease provokes the rapid, often distorted growth of services, transportation and other non-tradeables while simultaneously discouraging industrialization and agriculture—a dynamic that most policymakers seem incapable of counteracting. The Dutch Disease is especially harmful when combined with other barriers to long-term productive activity characterized by the exploitation of exhaustible resources.

But this is only one facet of a larger “resource curse.” Beginning with Adam Smith, observers have long warned of the perils of mineral rents (to Smith, “the income of men who love to reap where they never sowed”). These rents, they argue, too often promote imports rather than food production, foster large-scale ultimately brought them external payments deficits, rising budgetary shortfalls, runaway inflation...” (emphasis added). ibid., p. 99.

As Gonzalo Barrios, one of the founders of Venezuelan democracy, once remarked: “People rob because there is no reason not to.” Interview with author (Caracas, Venezuela: Summer 1979).


but often inefficient models of heavy industrialization, encourage consumption and generally lead to a bias toward unproductive activities. The resulting inflation also makes planning difficult and exacerbates unbalanced growth. This ultimately makes it especially difficult to transform industrial policies due to structural inflexibility built into the economy. Less well-endowed countries, on the other hand, may be able to change their industrial policies more easily, thus laying the basis for greater competitiveness, improved foreign exchange earnings and greater economic growth. Petro-states, to the contrary, rely on an unsustainable development trajectory fueled by an exhaustible resource—and the very rents produced by this resource form an implacable barrier to change.

Breaking the Structural Trap: Prospects for the Future

Whether attributed to poor policy decisions or deeper structural problems, there is remarkable agreement about the prescriptions for avoiding the unfortunate fate of most of the OPEC countries. According to economists, oil exporters should "sterilize" their petroleum revenues by placing them in an oil trust fund abroad when prices are high, thereby avoiding overly rapid industrialization and providing a necessary cushion to fall back on when prices fall. They should use market mechanisms—including a liberalized trade and exchange rate regime, privatization and the deregulation of prices, wages and interest rates—to check the role of the state in the economy and to guarantee macroeconomic stability as well as a convertible currency. They should provide a stable environment for property rights. In order to prevent the Dutch Disease, they should improve productivity in agriculture and industry. They must reform the financial sector to increase the independence of the central bank and strengthen the banking system as a whole, while simultaneously improving their judicial systems to secure property rights and better fight corruption. Finally, they should cut public spending as much as possible, resist the temptation to increase

30 See, for example, the overlap in prescriptions between Amuzegar and Christoph Rosenberg and Tapio Saavalainen in Christoph Rosenberg and Tapio Saavalainen, "Dealing with Azerbaijan's Oil Boom," IMF Working Paper 35, no. 3 (September 1998). These prescriptions, with varying modifications, are also put forward by the World Bank, and those regarding macroeconomic stability are the hallmark of the International Monetary Fund. See Amuzegar (1998).
domestic consumption to placate restless populations and avoid popular public works programs, instead investing in long-term health and education systems that will increase productivity.

Such formulas, however sensible in the abstract, are extremely difficult to implement in petro-states. Oil governments have made some effort to shrink the size of their states, and those that liberalized their trade and foreign exchange regimes have fared significantly better than those that did not. But most other reforms have proved to be difficult because, in effect, they require very inflexible political economies to reinvent themselves. Despite the fact that economists now agree on a general set of policies that might produce economic growth and diversification away from dependence on petroleum, many of these prescriptions are unlikely to be implemented by political leaders or their private sector allies, at least in the form they are intended. Because the policies that determine the utilization of oil wealth are not determined primarily by the types of economic calculations implicit in these prescriptions—a reality that few economists seem to understand—the key to successful reform is primarily political, not economic.

Take the apparently sensible policy prescription of "sterilization." In Norway and Alaska, where there have been some successes in this direction, arrangements preventing governments from utilizing oil funds for other than their targeting purposes are written into constitutions or other laws in a manner that effectively remove these revenues from the day-to-day control of policymakers. Such policy success presupposes the prior existence of an independent and workable judicial system that can cope with corruption and theft, the acceptance of transparent budgetary practices, a relatively independent central bank and the absence of urgent needs—none of which exist in any meaningful way in any of the OPEC countries. And without such institutions in place to curb them, why should rulers be expected to tie their own hands in the future by sterilizing oil revenues?

Or consider IMF conditionality, which has encouraged macroeconomic stability in other developing countries. Among oil exporters, prescriptions to cut spending and subsidies—that is, to resist the temptation to direct petrodollars toward public and private consumption with immediate short-term payoffs—can be more politically explosive where populations have grown accustomed to wealth and intolerant of austerity. Thus, rulers of petro-states tend to resist such measures as long as possible in order to avoid the recriminations that are sure to follow. Furthermore, since future oil booms promise to bring in more revenues, austerity reforms are likely to appear both imprudent
and unnecessary to rulers who can use future oil revenues as collateral to borrow rather than risk their own political support by implementing economic reforms. Unlike their non-oil counterparts, they can resist change longer. Austerity packages—especially those containing fuel price hikes—are often met with riots and violent resistance when they are finally implemented.

History, unfortunately, does repeat itself, even when the prescriptions for doing otherwise are abundantly clear. In the case of oil-exporters, this is even more likely because abundant petroleum revenues change the calculations of even the most prudent rulers, thus making “learning” more difficult, not only between countries but also within them.31 Thus the prospect is not bright that “new” entrants to global energy markets like Azerbaijan and Kazakhstan can actually learn from OPEC countries while they are themselves caught up in oil euphoria. This is especially true if, as is the case in many developing countries, revenues are abundant, their polities are already highly centralized, economic and political power is closely linked, there is no alternative tax base and administrative structures are weak. Under these conditions, efforts to avoid the paradox of plenty may well come to naught.32

Successful efforts to use petrodollars wisely depend, above all else, on the presence of countervailing political and social pressures strong enough to curb what I have elsewhere called “petrolization,” a process by which states become dependent on oil exports and their polities develop an addiction to petrodollars.33 This requires building the political capacity of groups and organizations with interests that are separate from, and perhaps even antithetical to, petroleum-led development. Associations of fishermen, for example, oppose oil exploitation that could pollute the source of their livelihood. Moreover, it involves building the capacity of the state to resist those powerful oil-based interests. Such reforms must be aimed at constraining the centralizing and concentrating tendencies that petroleum exploitation exerts on the polity, as well as at limiting the powerful alliance between rulers and oil

31 Mexican authorities, for example, upon viewing many of the disastrous government spending policies of their Venezuelan neighbor, repeatedly told the author that they would “avoid the Venezuelan scenario,” but subsequently followed many of its patterns. In Venezuela, every new president pledged to avoid the overspending of his successor, but as long as they had access to revenues, they continued to spend them. See Karl (1997).

32 For a discussion of the prospects of new entrants in the Caspian Basin, see Karl (forthcoming).

companies that is initially established when oil revenues circulate without strict controls.\textsuperscript{34}

Creative resistance—that is, the strengthening of pressures strong enough to counteract rentier incentives—must occur domestically and internationally, both inside and outside individual states. Reforms should be aimed, first and foremost, at developing merit-based civil services protected from patronage, non-oil based tax systems and transparent democratic institutions that are powerful enough to rein in the alliance between multinational oil interests and political leaders. The existence of one of these factors without the others—for instance, democratic institutions without state administrative capacity—will not suffice. Only a strong and united effort on the part of both international and domestic forces to establish capable administrative structures and democratic governance can reverse the paradox of plenty.\textsuperscript{35}

Periods of low oil prices offer the best opportunity for constructing the political and administrative institutions capable of managing petroleum. Indeed, such periods may be the only opportunity to move petro-states from vicious development cycles to virtuous ones. Because this requires that merit-based civil services replace cronyism or clientelistic arrangements, more political support can be built for civil service reforms when prices are low. When prices are high, incentives are just too great to retain plum state jobs for friends and family. Furthermore, when the stakes are lower, it is easier to decentralize polities by creating checks and balances—especially strong and accountable bureaucracies—that are capable of reining in ambitious rulers.

Finally, strengthening non-oil based interests capable of slowing down the overly-rapid and overly-ambitious development pushes that will accompany future price spurts is essential—if only for avoiding the huge boondoggles that have marked the booms at the end of this century. These interests vary from country to country. In Iran they are located primarily in the bazaars and religious spheres, while in Norway powerful chambers of commerce

\textsuperscript{34} It is important to note that eventually this alliance develops serious strains, generally after oil-led development has produced a burgeoning middle class, but this may take decades. The best description of the changing alliance between companies and rulers is still Franklin Tugwell’s, which describes how over time and with the development of new social sectors agreements between political leaders and multinational oil companies eventually become more complicated negotiations over the distribution of petroleum rents. See Franklin Tugwell, \textit{The Politics of Oil in Venezuela} (Stanford, CA: Stanford University Press, 1975).

\textsuperscript{35} This is the lesson from Norway’s management of its oil boom. See Karl (1997), pp. 213-221.
and social movements protect fishing and the environment. In Ecuador and Nigeria, resistance to exploitation based on petroleum exports has arisen from indigenous populations, international human rights movements intent on preserving the homelands of minorities and international environmental movements aghast at spills far larger than that of the ruinous Exxon Valdez. What they share, however, is the understanding that rapid petroleum-based development comes at a cost—usually to the economic activities, ways of life or values they hold dear. Where such interests become politically effective, they contribute to slowing down decision-making by creating debate over development policy. At a minimum, this helps to avoid the damaging speed that marks decision-making during windfall periods, and can help to avert at least some of the inadequate planning, lack of policy coordination and grandiose projects fostered by petromania. Such reckless projects have included building an aerospace industry in Indonesia, a new capital in Nigeria, the Man-Made River in Libya and a new national passenger car in Iran—all of which usually result in a spectacular waste of resources.

Calling upon international organizations and governments in oil-exporting countries to limit oil-based borrowing while building civil services and tax systems does not have the appeal of building the world’s largest airport in Saudi Arabia or the biggest mosque in the United Arab Emirates. Telling oil companies that they ought to help foster organizations that protect human rights, the rule of law and the environment may sound naïve, even though some company officials are beginning to think exactly along these lines. And pressuring governments, from both inside and outside their borders, to decentralize power where it has been so thoroughly over-concentrated may not have any immediate results. But the alternative is clear: oil exporters could go the way of 16th century Spain after its gold and silver booms and become the backwaters of their respective regions for centuries. Meanwhile, crises within their borders could lead to shortfalls in oil supplies, periodically sparking price shocks and subsequent busts marked by volatility that may threaten global stability. Today’s low oil prices provide the opportunity to create a different development dynamic. But since prices are bound to rise, this opportunity will not last. Ironically, high prices tend to close this window of reform. This is the paradox of plenty.