TESTIMONY TO THE FULL COMMITTEE OF THE UNITED STATES HOUSE OF REPRESENTATIVES, COMMITTEE ON FINANCIAL SERVICES

HEARINGS:
"TRANSPARENCY OF EXTRACTIVE INDUSTRIES: HIGH STAKES FOR RESOURCE-RICH COUNTRIES, CITIZENS AND INTERNATIONAL BUSINESS"

PROFESSOR TERRY LYNN KARL
Gildred Professor of Political Science and Latin American Studies
STANFORD UNIVERSITY

October 25, 2007

Thank you, Mr. Chairman and members of the Committee for giving me this opportunity to speak to you about transparency in the oil, gas and mining industries. Many years ago during the first oil price shock, the Venezuelan founder of OPEC, Juan Pablo Perez Alfonzo, remarked to me: “You should study what oil is doing to us. Oil is the devil’s excrement.” Perhaps he envisioned what I call “the paradox of plenty” an increasingly perverse development pattern rooted in the interaction between oil, gas mineral dependence and weak states – a problem inextricably intertwined with the lack of transparency in the extractive industries. It is no exaggeration to say that this “resource curse” poses a profound threat -- not only to attempts to alleviate poverty but also to the stability of global markets and the prospects for peace. In my remarks, I will make the case that a new “fiscal social contract” based on transparency is urgently needed – one that creates a wide range of incentives to change the behavior of all actors involved in energy and minerals, both foreign and domestic. As the largest consumer of energy in the world and a promoter of more open societies, the United States has the capacity, the self-interest, and the obligation to demonstrate leadership in this effort.

The Paradox of Plenty: Why Resource Rich Exporters are Poor

Resource rich countries are poor precisely because they are resource rich, a paradox that is especially true in most oil-exporters. The “resource curse” refers to the negative growth and development outcomes associated with mineral and energy-led development. In its narrowest sense, it is the inverse relationship between high levels of natural resource dependence[1] and growth rates, which few mineral exporters escape[2] and which is especially notable in oil-exporters. But in a broader sense, this paradox of plenty has come to refer to a number of other disturbing outcomes stemming from dependence on oil and/or mineral wealth as the leading sector in development.

[**See Figure 1**].

The picture is not pretty. Most policymakers seem to think that countries lucky enough to have “black gold” or other minerals can base their development (or their reconstruction) on the resources forming the backbone of the industrialized world. But the lived experience of almost

all late-developing oil-exporting countries and most mineral exporters to date tells us differently:[3]

- Countries dependent on extractive sectors, and especially oil-exporting countries, have exceptionally poor development outcomes given their resources. They have unusually high poverty rates when compared with countries dependent on the export of agricultural goods. Their infant mortality, malnutrition and life expectancy at birth is worse than in non-oil/mineral dependent countries of the same income level. Their health care and their school enrollments tend to be less than that found in their non-resource rich counterparts. OPEC countries spend less than the world average on education, and two to ten times more on their militaries than non-oil exporters.
- They suffer from exceptionally long dictatorships and include exceptionally few democracies. Once again, the poor quality of governance in the case of oil-exporting countries is especially compelling. Of the 25 countries that control 95 percent of all oil-reserves, only 5 (Canada, the U.S., Norway, Australia and the U.K.) rank at the top of World Bank governance indicators, but they only hold 5 percent of all proven reserves. To the contrary, 12 countries (Angola, Algeria, Iran, Iraq, Kazakhstan, Libya, Nigeria, Russia, Saudi Arabia, Venezuela and Yemen) rank near the bottom of these indicators – and they hold 68 percent of all proven reserves.
- Oil-exporting countries in particular are more prone to civil war, especially ethnic and secessionist wars, than their non-oil counterparts.

In sum, most countries that depend solely on extractive industries for their livelihood eventually become among the most economically troubled, the most authoritarian, and the most conflict-ridden in the world. This is true across regions – in the Middle East, Asia, Africa and Latin America. These results are not confined to already kindled hotspots like Iraq, Indonesia, Sudan, Chad, the Niger Delta and Colombia but also to countries attempting to manage serious domestic cleavages like Venezuela, Iran and Saudi Arabia. Today, at least 34 less-developed countries rely on oil and natural gas for at least 30 percent of their export revenues, and over one-third of these countries have annual per capita incomes below $1500.[4] Almost all the latter group and many of the former are potential or actual failing states.

How Lack of Transparency Encourages the Resource Curse

The lack of transparency in oil, gas and mining is one central explanation for this paradox. Oil, gas and mining are among the most profitable and least transparent economic activities in the world. Despite the fact that high quality information is the necessary underpinning of every well-functioning market, the price of oil is anything but the product of good information or efficient markets: estimates of proven reserves are unreliable;[5] oil production data does not accurately reflect supply;[6] there are no requirements for companies to report their payments to governments, and contracts are not disclosed. This opacity is compounded by the fact that oil has become a financial asset which attracts hedge funds and institutional investors who do not necessarily make their decisions on the basis of prevailing market fundamentals. Moreover, a significant percentage of oil transactions occur beyond the view of analysts and outside the sphere of regulated markets.[7] The information available to economic agents, including the companies, countries and traders, is so poor that the responses to this information, which determines future price formation, often has little relationship to actual economic conditions.[8] When added to the reality that the actions of a small number of very powerful and sophisticated players can cause prices to move in different directions, economic fundamentals become only one determinant in the price equation.

This lack of transparency transmits negative effects to extractive states through the acceleration in what is already the exceptional volatility of oil prices. Today, oil prices do not move exclusively in terms of supply and demand; instead, price spikes tend to occur in response to a mixture of rumors, inaccurate forecasts, currency changes and geopolitical fears (as we just saw this week when they reached an unprecedented $90 per barrel.).[9] This volatility has been exponentially increasing since the 1990s (on the downside and the upside), especially because the capacity to counter price spikes with timely information is almost non-existent. A sound U.S. energy policy simply cannot be built on such a shaky foundation.[10]

[**Figure 2 here].**

Nor can sound domestic economic policies to alleviate poverty be easily designed to cushion the effects of such rapid fluctuations. Even the most fiscally sophisticated states, possessing tools that are not available to Nigeria or Venezuela, would find this task difficult. Once again, oil represents the extreme case: oil price volatility is twice as variable as other commodities. Boom-bust cycles rob exporters of their development prospects by exerting a strong negative influence on planning, budgetary discipline and the control of public finances. Price fluctuations are also detrimental to investment and income distribution, compounding the difficulties of overcoming poverty.[11] While the volatility of oil prices affects every country, especially as the shifting cost of fuel works its way through a global economy, its impact is asymmetrical: a fifty percent increase in the price of oil might only cut the U.S. GDP by half a point, but the same changes will cause severe contractions or overheating inside oil-exporting countries, drastically changing their standards of living. This is evident even in the "best" case of Saudi Arabia, where oil reserves are (reputedly) the greatest in the world. Even here per capita income dropped from $28,600 in 1981 to a devastating $6800 in 2001, and it has only recovered to $16,505 in 2007 despite the high price of oil. This is not a formula for stability.

The volatility problem is compounded by the lack of information about projected revenues and past expenditures, making development disasters even more likely. Failure to be transparent about earnings and spending not only makes accountability extremely difficult; it also leads to the loss of fiscal control that was clearly manifest after the booms of 1973 and 1980 (and will surely be present in the current boom). This loss of fiscal control, in turn, produces huge problems in the absorption of petrodollars, overheated economies, widespread inefficiencies, extensive waste, spiraling subsidies, and eventually rampant over-borrowing likened to that of "drunken sailors in a bar."[12] This is not solely due to a lack of transparency; and factors like the "Dutch Disease" are also essential for understanding these poor outcomes.[13] But lack of transparency has seriously exacerbated the squandering of a unique development opportunity that can never be recovered. Because extractive industries are based on non-renewable resources, once the revenues they produce are misspent, they are gone forever. This helps to explain why petro-states like Algeria, Angola, Ecuador, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar Venezuela and Trinidad-Tobago experienced real per capita income plunges back to levels of the

1960s and 1970s when oil prices dropped throughout the 1980s-1990s. They simply lost decades of development.

Finally, sound policies to overcome poverty are unlikely to arise from a system that rewards the capturing of resource rents through unproductive activity (what economists call rent-seeking[14]) as well as corruption. Transparency International ranks energy and then mining near the top of its list of the most corrupt-prone sectors, following closely behind public works and arms trading. Opacity, which facilitates corrupt and unfair practices, is the glue holding together the current patterns of revenue extraction and distribution in mineral and energy exporters. Simply stated, most companies do not publish what they pay to states, and most exporting states do not disclose what they earn and what they spend. Indeed, concealing information, hiding output plans and price objectives, refusing to be transparent about how governments interact with those involved in the extraction of oil, and confidentiality clauses to obscure the content of signed contracts has too often been the name of the game, thus huge amounts of money are virtually untraceable and not subject to any oversight.

Once again, the oil-exporters stand out: corruption in these countries is significantly greater than the world average. Of the 15 leading oil exporters in 2007, 12 rank among the bottom two thirds of the world's most corrupt countries and 6 cluster at the bottom (along with the newer exporters of Chad, Sudan, Equatorial Guinea, and the Democratic Republic of the Congo.)[15] Many of their scandals are legendary:

- In Angola, the second largest oil-producer and the world's fourth largest diamond producer, a billion dollars a year representing about a quarter of its oil revenues disappeared from 1997-2002 – a sum almost equal to all of the social and humanitarian spending in the country over the same period. While President Dos Santos keeps large sums of money in secret bank accounts, 70 percent of Angolans live on less than a dollar a day.[16]
- In Kazakhstan, where President Nazarbayev has secreted over a billion dollars in a secret fund in Switzerland while three million of his people live on less than $35 a month. The largest foreign corruption investigation in U.S. legal history has uncovered kickbacks he

received to secure contracts in the Tengiz oil fields for Chevron, BP. ConocoPhillips, and ExxonMobil.[17]

- In Equatorial Guinea, where oil wealth has produced the highest per capita income in Africa but where the International Monetary Fund has been unable to detect "even a measurable improvement of living standards,"[18] Chevron, Exxon Mobil, Marathon Oil Corporation, and Amerada Hess paid revenues directly into a Riggs bank account under President Obiang's direct control.
- U.S. and British subsidiaries of ABB Ltd, pled guilty in July 2004 to paying bribes in exchange for confidential bid information and favorable recommendations from Nigerian government agencies overseeing seven oil and gas construction contracts.[19]

As Global Witness has so poignantly pointed out, *not one of these scandals could have happened if oil companies had been forced to disclose publicly their resource payments to oil -states, and if petro-states, in turn, were required to publish what they earn and spend.*

Corruption not only robs the poor; it facilitates the spilling of their blood.

- In Congo Brazzaville, for example, Elf Aquitaine covertly financed both sides of the civil war that helped to mortgage the countries future oil income in exchange for expensive loans, a war that killed an estimated 7-11,000 people.
- In Indonesia, Mobil Oil admitted to supplying food, fuel and equipment to soldiers hired to protect oil installations. These same soldiers were later implicated in massacres in the breakaway province of Aceh and reportedly used Mobil's equipment to dig mass graves, though Mobil has denied knowledge of any abuses.
- Regarding Burma, where oil revenues help to support the pariah regime in power, in a landmark human rights case, Unocal agreed to settle the claims in *Doe v. Unocal* and compensate villagers who sued the firm for complicity in forced slave labor, rape, and murder.
- In Iraq, Deputy Prime Minister Barham Salih has stated that over $1.5 billion is stolen every year from the country's main oil refinery and channeled to insurgents.

While the impact of corruption and rent-seeking on the moral fabric of a country cannot be quantified, economic costs can. Corruption raises the transaction costs of doing business in energy and mineral countries, negatively influences the amount of foreign direct investment,

lowers the productivity of infrastructure expenditures, and perversely affects decisions about which projects to undertake. It is also negatively correlated with foreign currency credit ratings, thereby damaging future development performance.[20]

Why Adopting Transparency is So Difficult

Escaping the perverse development problems associated with extractive industries and making more effective strides towards poverty alleviation requires the capacity to trace the flow of payments from companies to governments, within governments, and from governments to their people. This is primarily a political problem about untangling intricate webs of money and power. This is why the resource curse is so intractable and why international initiatives, combined with the actions of civil society and government reformists inside these countries, are so critically important for the establishment of more just patterns of development and more stable markets.

States dependent on extractive resources for their foreign exchange are different from most other states: they are "no tax and spend" states. Payments from extractive industries tend to substitute for direct taxation, thus rulers in these states have the political advantage of being able to tax their populations lightly or not at all. But this advantage comes with a cost: poor governance and weak state capacity. Systems of taxation encourage the generation and flow of information, demands for representation and decentralization of power, and accountability. Bargaining over what is to be extracted from populations not only forges the fiscal social contracts that necessarily underlie all effective states but also forces government agencies to become more efficient and accountable in their spending.[21] States dependent on extractive industries for their revenues, and especially petro-states, lose this vital link between taxation, decentralization, representation and capacity as a function of the way they raise their principal resources.[22] Instead, they tend to be dependent, over-centralized, and administratively weak.

This encourages opaque business practices on both sides. For each individual company, confidentiality shapes how it accounts for its costs, what profits it reports to the government, how much profit tax it must pay to governments, whether it can offer large signature bonuses or side payments to enhance its competitive advantage over other companies, and how it interprets

and indeed whether it can veto environmental or human rights standards. For exporting governments, opacity affects the kinds of contracts they enter into, the amount of revenues they receive, the amount of private gain for individuals, whether these funds are ultimately traceable, and the types of security or environmental standards they do or do not defend. But whatever the short-term advantages to some, secrecy on the revenue side causes long-term damage both markets and states and to both producers and consumers. As long as authorities have the power to permit one firm to enter their country ahead of others for a price or set up bonus bidding to require companies to compete on the basis of how large an up-front bonus they will pay, these practices ultimately discourage competition and result in lower revenues over time for the exporting countries themselves.

A different set of problems can be seen on the expenditure side. Here spending patterns follow an internal political logic that turns the state into a “honey pot” -- to the detriment of economic development and the alleviation of poverty. Since remaining in power depends on the distribution of resource rents in a politically astute manner and this is also the mechanism for linking subjects to the state, rulers of extractive states depend on ever greater spending on their patronage networks, whether this is religiously or ethnically defined or simply a military. This is especially true for petro-states. In Venezuela’s former two party dominant system, for example, the vast amounts of money distributed through the party system made it worthwhile for 96 percent of the country to join a party (and one in seven Venezuelans was clever enough to belong to both parties!) – just as Sunnis once sought to become Ba’athists under Saddam Hussein or Iranians now seek to be part of the fundamentalist Conservative Alliance. Oil governments keep themselves in power by allocating monies in a fairly predictable pattern: buying off powerful groups and individuals so that they do not become a threat, permitting some degree of trickle-down, and building powerful coercive apparatuses to ensure compliance from recalcitrant subjects.[23]

What such regimes do not achieve, however, is viable development. Given the fluctuations and unpredictability of their central resource and the growth of their populations, this expenditure pattern is ultimately not sustainable. With the exception of those few countries with tiny populations and vast amounts of reserves, resources are simply too volatile and, eventually, too

inadequate. While they may serve to paper over conflicts in the short to medium term, the long-term result is too often instability, which subsequently boomerangs on the commodity markets, making prices even more volatile and stability even more fragile. In effect, state failures become market failures, and market failures hasten state failures.

Why Transparency is a Precondition to Technocratic Fixes

Avoiding market and state failures has become the rhetorical stance of all actors in the oil story, and the range of prescriptions offered is wide. According to economists, extractive states should diversify away from oil and use market mechanisms (including a liberalized trade and exchange regime, privatization and deregulation) to guarantee macroeconomic stability. To prevent the Dutch Disease, they ought to improve productivity in agriculture and industry and reform their financial sectors. They should "sterilize" their petroleum revenues by saving them in an oil trust fund abroad, thereby avoiding overheating by introducing them gradually into the economy. They should cut public spending and avoid popular public works programs with immediate payoffs. Finally, they should provide a stable environment of property rights and drastically limit their own role, possibly by privatizing the petroleum industry. And they should do all of this while improving their judicial systems to better fight corruption. In short, extractive states should simply remake themselves.

But such prescriptions do not take into account the fundamental realities described earlier: *what is often economically inefficient decision-making is an integral part of the calculation of rulers to retain their political support by distributing petrodollars to their friends, allies, and social bases.* Rather than avoiding the hasty industrialization, profligate overspending, and increased domestic consumption that has marked the OPEC countries (as development economists advocate), or checking the rising dominance of the state over the economy (as neo-liberals advise), or promoting judicial reform, financial transparency and "good governance" (as both U.S. AID and the World Bank urge), some political leaders seem to believe that they can ward off immediate political and economic problems by doing precisely the opposite. This is not because they do not understand their own interests; rather, at least in the short run, they understand them only too well.

Nor do such prescriptions take into account the responsibility of international companies in contributing to the resource curse. Lack of transparency, with its accompanying patterns of volatility and corruption, is necessarily a two-way street, and prescriptions that do not recognize this will necessarily be inadequate. This is why many of the solutions proposed for overcoming the resource curse, which seem so very promising, are unlikely to work on their own and instead, should be put forward as part of a larger process of political and legal reform. Virtually all of these proposals are solely economic and technocratic when the deeper problem is political, and they are only aimed at the extractive states themselves rather than the symbiotic relationship between these states and international companies.

Even a brief look at two of these proposals demonstrates the importance of prior attention to addressing deficits in information, monitoring and participation before they can be successful.

- ***"Sterilize" or remove revenues through natural resource funds*** *"* One solution frequently advanced is to prevent governments from relying on resource rents by putting those rents beyond their reach and into a natural resource fund. Whether modeled after Norway's State Petroleum Fund or the very different Alaska Permanent Fund, such funds are viewed as an important fiscal tool that can aid in planning and insulate countries from price volatility. However, these funds, as they have been constituted to date, have major drawbacks. Because they are generally not transparent, and the information regarding their allocations is not available to legislatures, the press, or NGOs, the types of accountability mechanisms that would ensure their proper functioning do not yet exist. Indeed, there is little point in talking about such funds in countries like Kazakhstan, Republic of Congo or Equatorial Guinea, where governments do not provide even the most basic information about their revenues from oil or gas. Furthermore, while these funds may look good on paper, they are almost always set up under the direct control of the executive and thus can constitute a type of parallel budget without controls.[24] This poses the danger of simply adding to fiscal chaos while becoming a second "honey pot." Finally, claiming that it is necessary to save resource rents is politically difficult in countries whose populations live in acute poverty. Explaining this necessity requires

information and open debate, and both are in remarkably short supply in most extractive states.

- ***Change Property Rights and Allocation Patterns:*** Another way to prevent too singular a reliance on revenues earned directly from oil is to change the patterns of property rights either of the production process or over the ensuing revenues, for example through direct distribution. Changing the ownership structure of the production process might mean inviting significant foreign participation (Kazakhstan) or permitting domestic private interests to take over – at least temporarily (Russia). But once again, the problem with these arrangements is political. Privatization raises the acutely partisan question of who gets to be the new owner, and it runs counter to strong nationalist notions that the state is the guardian by right of resource wealth – a legal and ideological position that is embedded in almost all resource rich countries. Furthermore, at least where oil rents are concerned, there is still no evidence that domestic private oil companies are any better equipped to manage petroleum than their state counterparts. Note that Norway's state company is a model while Russia's private companies are suspect in many ways. Direct distribution to the population, modeled after Alaska, has its own problems; it threatens to abandon cherished public goods, e.g., school systems and healthcare, while failing to create citizen engagement. Alaska itself is a prime example. The distribution of petrodollars to individuals has substituted for a broad-based tax system, a personal income tax, and even a sales tax -and the results are classic: chronic budget deficits, public works projects that remain unfinished, lower than average productivity, and a pattern of favoring consumption over investment. Why should this be any different in countries with less educated populations, less rule of law, and less participation?

The policies might well work if the state in question is Norway – not war-torn Angola, post-communist Kazakhstan, or ethnically divided Iraq. Norway, which is held up as the example of "best practices" in oil, has avoided the worst manifestations of the resource curse. But it did so only with difficulty and from the point of departure of an already high level of development, with a pre-existing merit-based, technically competent and honest bureaucracy, and a strong democracy. With information, monitoring and participation mechanisms already available, it was able to hold a broad debate over the appropriate utilization of oil revenues, reorganize its

Ministry of Industry, create the highly efficient Statoil, define explicit roles for public and private companies, sustain a diversified economy, rein in borrowing, and establish an oil fund invested abroad to sterilize excess revenues. It even protected the state's non-oil fiscal capacity by resisting the strong temptation to lower taxes and permit oil revenues to replace its normal revenue base. The result speaks volumes: in recent reports of the United Nations Human Development Index, Norway ranks the number in human development. But most extractive states are not Norway. This is precisely why transparency must be a first step. It is a *prerequisite* for the effective utilization of resource monies, not the end product [25] -- a type of fast track to stateness.

Towards a Fiscal Social Contract in the Extractive Industries

It is a lot quicker and easier to build a pipeline or a mineshaft than it is to build a state. But the resource curse, at heart, is the interaction of the wealth produced by natural resources with weak states. Escaping this problem depends, first and foremost, on access to information. For this reason the campaign for transparency has grown exponentially, pushed by a number of high profile scandals, the morally reprehensible prospect of devastating outcomes in the new exporters of West Africa, and, most recently, the sharp rise in oil prices. It has already shown some notable impacts. Building on notions of fairness, rights, and corporate social responsibility, these halting but initial actions are predicated on the belief that all stakeholders -- the companies, the people in exporting countries, the taxpayers in consuming countries, the governments in consuming countries and the international financial institutions – have an interest in turning the current "lose-lose" situation into a different set of norms and rules: a requirement that transparency about company payments and country resource incomes and expenditures should become standard operating procedures. This is a highly contested process; none of these initiatives have proceeded smoothly;[26] and some have not proceeded at all.

What is evident, however, is that voluntary revenue disclosure models are not enough. While virtually all knowledgeable observers agree that more transparency would improve country economic performance, the bottom lines of companies, and the health of markets, the companies, are afraid of moving first and being undercut by others. But if disclosure requirements were

mandatory for all companies registered in the U.S., this would cover the leading European companies as well as those from Canada, China, India, Brazil and Russia.[27] Governments insisting on confidentiality clauses would have few choices of whom to invite into their territory – and most of these companies tend to lack the combination of expertise, technology, and capital to successfully compete. Mandatory legislation would have the dual effect of removing the fear of being first and leveling the playing field. Thus, new legislation that creates mandatory disclosure requirements, both in the U.S. and Europe, is an imperative accompaniment to this transparency campaign.

It cannot be the only one. The resource curse is the manifestation of such long-standing and institutionalized patterns that it cannot be undone without a huge coordinated effort by all the stakeholders negatively affected -- including the governments and citizens of producing and consuming countries, international oil companies, and international financial institutions -- to design new law, norms and practices that put order and fairness into extractive industries. However grandiose or out-of reach a 'big push' to curb the resource curse may seem, half-hearted attempts or partial efforts that single out solely one stakeholder while letting others continue their past practices simply will not work. Because partial reforms run the risk of merely moving huge resource rents from one site to another and creating new grievances in the process, a more comprehensive approach is imperative. A gradually emerging fiscal contract, especially if parts are mandatory and backed by law, can begin to build accountability, perhaps slowing and even reversing the resource curse with its accompanying slippery slope into violence and war.

Certain recommendations flow from this analysis:

- ***For all governments*:** Both host and home governments should remove all obstacles, legal or political, to the transparent disclosure and monitoring of extractive industries. In the United States, this would include removing non-disclosure clauses in contracts, guarantees of freedom to publish revenue amounts, and full disclosure of payments.
- ***For producing governments***: Oil revenues should be included in the national budget. Information regarding revenue as well as expenditure allocations should be distributed widely within the polity through the press, the internet and a variety of consultative fora.

- ***For companies*: ** Companies should publicly disclose, in a regular and timely manner, all net taxes, fees, royalties and other payments made to producing states, including compensation payments and community development funding. Companies should also pledge to respect internationally recognized environmental and health standards regardless of their enforcement inside oil-exporting countries.
- ***For international financial institutions*:** Transparency conditionality should be attached to all loans and assistance to oil states and to all Export Credit Agency assistance to energy corporations. Countries and companies that do not abide by these conditions should receive no further assistance and those that engage in "best practices" should be rewarded.
- ***For a non-governmental organizations*:** Both nationally and transnationally, these organizations should strengthen the capacity to collect and disseminate information, develop independent monitoring, and lobby governments, companies and international financial institutions. NGOs should also form "umbrella" coalitions that unite environmental, human rights, indigenous rights, scientific and other constituencies affected by petroleum arrangements.
- **For all stakeholders:** Violent tactics should be openly renounced, widely condemned and be replaced with bargaining that observes universally accepted human rights standards as defined in the Universal Declaration of Hunan Rights.

As the oil market moves from conditions of abundant and cheap supply to limited and more expensive energy, and struggles over resources deepen, the problem of rich states and poor institutions can only heat up – with terrible consequences only too easy to foretell. Transparency is not a stand-alone tool, and it is only a start. But if it is seen as a prerequisite to other types of state and market reforms, it promises real payoffs for managing expectations, reducing social tensions, and providing more stability. Whether more comprehensive agreements about the management of natural resources will emerge in time is an open question. Yet if the brewing crisis over natural resources is not more justly and efficiently managed, the lives of millions of people, the stability of markets, the prospects for peace and the health of our hearth will be further jeopardized. And the founder of OPEC will unfortunately have been proved to be right.

[1] Note that what is key is the dependence on exports, and not the mere presence of oil or minerals. Many countries have been oil or mineral producers, most notably the U.S. but they do not experience the resource curse because they are not living off the revenues from exports.

[2] Chile (copper) and Botswana (diamonds) are usually put forward as examples of the possibility of escaping the resource curse. Aside from Norway, there are no counter examples in the larger oil-dependent countries.

[3] There is extensive documentation about these poor outcomes. See, for example, see Gelb (1988), Auty (1993, 2001), Sachs and Warner (1995) and Ross (2001b) on economic outcomes, Karl (1997, 1999, 2000, 2004, 2005), Wantchekan (2000), and Ross (2001a) on political economy outcomes, including the relationship to democracy and rule of law, and Le Billon (2001), Collier and Hoeffler (2004,2005) and Kaldor, Karl and Said (2007) on the relationship between oil and war.

[4] Birdsall and Subramanian 2004.

[5] The criteria used to estimate proven reserves are ambiguous and often controversial. Both countries and companies have incentives, at different times, to understate or overstate these reserves. For example, companies that are negotiating production agreements with a host country might understate the reserves, but the same companies could overstate them in discussions with fund managers or equity analysts. OPEC countries are also likely to have overstated their reserves, especially in the 1980s. Kuwait still claims exactly the same reserves level it had in 1985, despite pumping millions of barrels every day since then.

[6] OPEC stopped its annual and sometimes semi-annual practice of publishing field-by-field data in 1982. Thus oil market data is generally a black art like using a set of chicken bones," says Paul Horsnell of Barclays Capital. "If Columbus had thought he'd hit India when in fact he was in the Caribbean, that's about the level of oil market data." Cited in Adam Porter, "How much oil do we actually have?" BBC News, July 15, 2005.

[7] Robert Mabro, "Transparency in the Oil Market and Other Myths," Oxford Institute for Energy Studies, Oxford Energy Comment, February 2001. See also Ali Naimi, Saudi Oil Minister, *Middle East Economic Survey,* Vol. XLVIII, no. 22, May 2005.

[8] The extent to which this is true is difficult to convey. Matthew Simmons notes that this "data vacuum" has led to the proliferation of a whole new class of energy consultants, the so-called "tanker traffic counters," whose job is to estimate production based on observations of tanker traffic at the world's leading loading docks. He recounts the story of Petrologistics, which claims to have spies in all the major ports, though apparently has only one employee who conducts his business above a small grocery store in Geneva. Although this employee feeds information to a number of prestigious places, including the all-important IEA Monthly Report, there is no way to verify the existence of his independent tanker counters, or whether the numbers reported have any basis at all.

[9]At the time of this writing, oil prices have surpassed US$90 on speculative buying of oil futures based on fears that Turkey will invade the Kurdish region of Iraq, record appreciation of currencies vis a vis the U.S. dollar, and an increase in speculation in oil futures. This is not about market fundamentals because global demand, if anything, is weakening, particularly in the developed world, and the potential for disruption from a new conflict in northern Iraq is less than one percent of global supplies.

[10] Extreme volatility began with the price hikes of 1973, was heightened by the collapse of OPEC's system of administered prices in 1985, and has accelerated due to the increasing impact of non-fundamentals on pricing.

[11] Aizeman, J and N. Marion (1999). "Volatility and Investment: Interpreting Evidence from Developing Countries." *Economia* 66: 157-79.

[12] When this description was made by an international banker to an OPEC oil minister (in the presence of this author), the oil minister retorted: "Yes, but you bankers were like drunken bartenders!" But borrow they did – more

rapidly and over a longer period than other developing countries (Karl 1997). This permitted leaders of petro-states to avoid badly needed structural changes for longer than other developing countries.

[13] Named from the perverse effects of natural gas on other forms of productivity in the Netherlands, this occurs when resource booms bring about the rise of real exchange rates, and in response labor and capital migrate to the booming sector, thereby reducing the competitiveness of domestically produced goods and services. When this occurs, the reduced competitiveness in agricultural and manufacturing exports "crowds out' other productive sectors and makes the diversification of the economy particularly difficult. This in turn reinforces the dependence on extractive industries and, over time, it can result in a permanent loss of competitiveness.

[14] Rent is unearned income or profits "reaped by those who did not sow." According to economists, rents are earnings in excess of all relevant costs, including the market rate of return on invested assets. They are the equivalent of what most non-economists consider to be monopoly or oligopoly profits. Rent-seeking refers to efforts, both legal and illegal, to acquire access to or control over opportunities for earning rents. In oil dependent countries, rent-seeking refers to widespread behavior, in both the public and private sector, aimed at capturing oil money through unproductive means.

[15] The only top exporters that are not moderately to highly corrupt are Norway, Canada and the United Arab Emirates. The others include (in order of export strength in 2007 according to International Petroleum Monthly): Saudi Arabia, Russia, Iran, Venezuela, Kuwait, Nigeria, Algeria, Mexico, Libya, Iraq, Angola and Kazakhstan.

[16] Transparency International ranked Angola 147 in its 2007 Corruption Perceptions Index survey of 163 countries and the International Budget Project, an independent nongovernmental organization that measures government budget transparency, reported that Angola was one of the most opaque countries for budget transparency in its 2006 survey of 59 countries.

[17] Seymour M. Hirsch, "The Price of Oil, *the New Yorker*, July 9, 2001.

[18] Adam Smoltczyk, "Rich in Oil, Poor in Human Rights," Spiegel online, August 28, 2006.

[19] Transparency International, "Foreign Bribery Cases in Africa," http://www.transparency.org/news.

[20] Numerous studies have persistently linked corruption to poor economic outcomes. See, for example, Leite, C. and J. Weidmann (1999)**.** Does Mother Nature Corrupt? Natural Resources, Corruption, and Economic Growth" IMF Working Paper WP/99/85.

[21] State authority, as the Magna Carta illustrates, is historically constructed and maintained through a series of exchanges of 'resources for institutions,' and, in the best cases, this produces a virtuous cycle between political institutions and economic patterns In the European experience, for example, state building arose primarily from the long and violent struggle to define national borders – a struggle that required taxation. The development of the modern state paralleled the growth of permanent standing armies because any state that wished to survive had to increase its extractive capacity to pay for its protection; war generated an increased need for revenues that could only be met through taxation or borrowing. Because taxation often provoked costly and violent resistance, and borrowing depended on the ability to demonstrate a secure revenue base, regimes had to invest real political and organizational effort into developing linkages with their subjects in order to raise the revenues they needed. In this respect, states became motors of change. Rulers learned that using consensual mechanisms for extracting taxes was in their interest in the end, even if this meant increasing revenue transparency, submitting to oversight in the revenue-raising and public spending processes, and giving taxpayers a say in how their monies were spent. The net result was the construction of an administrative apparatus that could penetrate the national territory, the creation of merit-based civil services, the evolution of the rule of law to ensure compliance on all sides, and the facilitation of some type of representative institutions that could provide for some citizen input. See Charles,Tilly,. (ed.). *The Formation of National States in Western Europe*. (Princeton: Princeton University Press, 1975) and *Coercion, Capital and European States, AD 990-1992* (Cambridge MA and Oxford UK: Blackwell, 1992). Also see James Mahon, *Liberal States and Fiscal Contracts: Aspects of the Political Economy of Public Finance*, (Paper presented at the Annual Meeting of the American Political Science Association, Washington DC: 2005).

[22] Note, however, that this is not the case where significant state-building occurred prior to the exploitation of oil, gas and mining for export as in Canada or Norway.

[23] This appears to be precisely what occurred until the late 1990s in the OPEC countries when approximately 65-75 percent of the post 1974 gross domestic product was for public and private consumption, largely through subsidies to friends, family and political supporters of the government. The remaining portion (20 to 35 percent of national output) was either invested or used to build sophisticated militaries for national defense or for the suppression of opposition movements.

[24] One Venezuelan president was able to secretly buy weapons to channel to Central America; the president of Azerbaijan could tap into the fund to support the conflict with Armenia, and most observers do not know where Kazakhstan's president is spending these revenues.

[25] Note that the Extractive Industry Review of the World Bank Group, which issued its recommendations in January 2004, reached a similar conclusion.

[26] The World Bank, for example, launched an exhaustive Extractive Industry Review, which resulted, to the leadership's astonishment, in a recommendation to withdraw gradually from all oil and mining activities – something it is not prepared to do.

[27] In addition to all U.S. companies, companies listed on the New York Stock Exchange and registered with the Securities Exchange Commission include many non-US companies. In oil, for example, China Petroleum and Chemical Corporation, China National Petroleum Corporation, PetroChina, Lukoil, Petrobras and many others are listed.