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RESOURCE CURSE OR BLESSING? AFRICA'S MANAGEMENT OF ITS EXTRACTIVE INDUSTRIES

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RESOURCE CURSE OR BLESSING? AFRICA'S MANAGEMENT OF ITS EXTRACTIVE INDUSTRIES

WEDNESDAY, SEPTEMBER 24, 2008

U.S. SENATE,
SUBCOMMITTEE ON AFRICAN AFFAIRS,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:33 a.m., in room SD–419, Dirksen Senate Office Building, Hon. Russell Feingold, chairman of the subcommittee, presiding.

Present: Senators Feingold, Lugar, and Isakson.

OPENING STATEMENT OF HON. RUSSELL D. FEINGOLD, U.S. SENATOR FROM WISCONSIN

Senator FEINGOLD. I call the hearing to order, and I'd like to welcome all of you to this hearing entitled "Resource Curse Or Blessing? Africa's Management of Its Extractive Industries." I am of course honored to be joined by the ranking member of the subcommittee, Senator Isakson, and of course the ranking member of the full committee, Senator Lugar, and I would like each of them to deliver some opening remarks in just a moment.

This is likely the last hearing of the subcommittee in the 110th Congress and it closes out a busy 2 years. Prior to today we have held 10 hearings on both specific countries in crisis, including Kenya, Somalia, Sudan, and Zimbabwe, and also on emerging trends, such as the United States-Africa Command, democratization, and China role in Africa.

Today's topic cuts across all those areas. Africa's abundance of natural resources holds great economic potential and the promise of pulling so many people out of poverty. Yet we have unfortunately seen the opposite, aptly described by some by the phrase "resource curse," as competition for control of these resources has more often fueled corruption and inequality than growth and development. Even worse, that competition has frequently devolved into conflict.

A decade ago we watched in horror as the trade in diamonds became intertwined with war, destruction, and displacement in places like Angola, Liberia, and Sierra Leone. Since that time much progress has been made to combat those so-called blood diamonds. In 2000 the Kimberley process was launched, leading to the establishment of an international certification scheme to ensure rough diamonds do not originate in conflict zones. Kimberley has been a

tremendous success, even though it is unable to fix the problem completely and cannot, unfortunately, ensure that the citizens of each country receive the benefits they deserve. It does, however, provide a model that can be strengthened and expanded to address other natural resource concerns across the continent and do so in a way that decreases conflict and corruption, overriding tangible benefits to local communities.

However, to date we have not had a Kimberley-like process for cassiterite, coltan, copper, gold, or timber. The mismanagement and exploitation of these resources continues to undermine stability in places such as Côte d'Ivoire, the Democratic Republic of Congo, and even Zimbabwe. The lack of mechanisms to regulate or at least scrutinize the trade in these resources handicaps diplomatic and humanitarian efforts to bring peace to these places.

One of the goals of today's hearing is to recognize this gap and consider ways to address it. Similar challenges exist with oil and gas, output of which has skyrocketed in recent years in Angola, Chad, Equatorial Guinea, Nigeria, and Sudan. In fact, few people realize it, but more U.S. oil imports now come from Africa than the entire Persian Gulf.

These extractive industries have provided massive revenues, but the growing production is not translated into reducing poverty. Despite their considerable wealth, Africa's leading oil-producing nations remain home to some of the worst poverty in the world and are consistently rated as some of the world's most corrupt places. In fact, just yesterday Transparency International released its corruption index, with African countries, many of them oil-producing, comprising 6 of the 10 most corrupt: Somalia, Sudan, Chad, Guinea, Equatorial Guinea, and the Democratic Republic of Congo.

Moreover, oil production has been central to the intense violence in Nigeria's Delta region as well as the conflicts throughout Sudan. These are examples of how the corruption that stems from resource mismanagement can undercut the rule of law, breeding weak and failing states.

Failure to confront the competition for resources in these places undermines ongoing stabilization efforts and puts U.S. interests at risk. Examining the underlying dynamics and the risks of the resource curse is especially important when nearly a dozen African countries are beginning new oil and gas exploration. There is of course real excitement in these countries at the potential for extractive industries to stimulate economic growth. But it is essential that they avoid the problems that have plagued many of their resource-rich friends and neighbors across the continent.

Considerable progress has been made over the last 5 years to identify mistakes and come up with the best practices for natural resources management. There have also emerged initiatives to support the implementation of those lessons, most notably the Extractive Industries Transparency Initiative, known as EITI. EITI facilitates technical expertise and reporting guidelines for countries to promote transparency in their oil, gas, and mining sectors. It is worth noting that, of the EITI's 23 current candidate countries, 16 are in Africa.

EITI is a promising start, but it alone has been insufficient to ensure transparency and accountability in the extractive indus-

tries. First, targeted assistance is needed to support the capacity of governments to implement the EITI guidelines. Second, the World Bank has called for a more comprehensive approach that incorporates the range of activities from exploration of resources through to the spending of resource revenues by governments.

Today's hearing will explore how the United States and international financial institutions are working to address these shortcomings of EITI and how we might do more. At the same time, though, we know that it is often a lack of will rather than capacity that ultimately hinders transparent and equitable resource management. Therefore we must also consider how the United States can leverage actors involved in Africa's extractive industries.

One way is the Extractive Industry Transparency Disclosure Act, of which I am an original cosponsor. Legislation was introduced by my colleague Senator Schumer, who has submitted a statement on the bill for this hearing. The bill would require all companies registered with the SEC—and it covers 27 of the 30 largest operating international organization companies—to file an annual report of all payments made to foreign governments for the extraction of natural resources. Requiring companies to provide that information can help public institutions here and in Africa to combat corruption.

If there are no objections from my colleagues, I am pleased to submit Senator Schumer's statement into the record and I look forward to working with him to pass the bill.

Regulating companies needs to be complemented by direct engagement with foreign governments on good government, respect for the environment, and protection of human rights. Sadly, under this current administration we have seen U.S. capacity to engage and advance these principles shrink in Africa. Certainly the growing role of China in the continent, as well as India, Russia, and others, has been a major factor beyond our control. But too often we have lacked high-level leadership and necessary interagency coordination to implement coherent and comprehensive strategies in Africa.

As our sights turn to the next administration and a new Congress, this will need to change, not only to help reverse the stubborn resource curse in Africa, but also to build stable long-term relationships. I hope today's hearing will help us assess how we might move in that direction.

Now let me quickly introduce our two distinguished panels so we can begin that discussion. First we will hear from Deputy Assistant Secretary for African Affairs, Todd Moss, who has an extensive background in issues of financial and economic development in Africa. I realize that this issue cuts across several Bureaus at the State Department, so I really appreciate your willingness to testify today on State's current approach to these issues and the challenges involved.

We also sent an invitation to the Treasury Department. They were unable to send a representative today, which is unfortunate given their important role in this discussion.

Our second panel features an all-star lineup, beginning with Professor Paul Collier, the director of the Center for the Study of African Economies at Oxford University. Dr. Collier is known—widely

known these days, for his award-winning book entitled "The Bottom Billion: While the Poorest Countries Are Failing, What Can Be Done About It?" He was one of the first to identify the intersection between the resource curse and civil wars in Africa. Both as an academic and World Bank adviser, he's been a leading voice over the last decade on issues of conflict and development. So it is an honor to have him joining us today to give us his latest policy recommendations for how African governments, international financial institutions, and the United States can help reverse this resource curse.

We also hear from David Goldwyn, president of the energy consulting firm Goldwyn International Strategies. Mr. Goldwyn brings a wealth of experience on these issues as well, not only from the private sector through his current position, but also as a senior associate of the Center for Strategic and International Studies and from his previous work and leadership roles within the Departments of Energy and State. So I look forward to Mr. Goldwyn's assessment of what is needed both institutionally and operationally to enable the United States to better leverage Africa's extractive industries to promote good governance and stability.

Finally, we will hear from Simon Taylor, the cofounder and director of Global Witness. Global Witness has worked for the last 15 years through hard-hitting investigations and civil society advocacy to break the links between natural resources, conflict, and corruption. They and their NGO colleagues have been instrumental to many of the successes I described earlier. In fact, the very holding of this hearing and Senator Durbin's Judiciary hearing later this morning on corporate responsibility is a testament to the many years NGOs have spent trying to raise awareness of these issues. I hope Mr. Taylor will give us the perspective of civil society on what progress has been made and what gaps still exist in international efforts to combat conflict resources and ensure transparency in Africa's extractive industries.

So thank you to all our witnesses for being here and I look forward to your testimony and our subsequent discussion. Thank you for your patience, my colleagues. I wanted to set the stage for this. But I now turn to my distinguished ranking member, Senator Isakson, for his opening remarks.

STATEMENT OF HON. JOHNNY ISAKSON, U.S. SENATOR FROM GEORGIA

Senator ISAKSON. Well, thank you, Chairman Feingold. I was thinking last night as I prepared for this hearing, 17 years ago my oldest son wrote his master's thesis at University of Georgia on the subject of the Dutch disease and its impact of the Middle East. The Dutch disease economically is when a country is rich in a natural resource, but doesn't reinvest the proceeds from its extraction into its people in terms of education, manufacturing, economic development, health care, and the like. What happens is you end up with a region of the world, just like we have in the Middle East now, where the countries are wealthy, but the people basically have to purchase all of their expertise, medicine, health care, things like that, from outside the country because money was never reinvested within the country itself.

Africa is on the doorstep of having the opportunity to take the wealth from these extractive industries, invest it in its people and education and health care and training and economic development, to where it can be a shining star on the world globe and the world stage.

In January I visited Equatorial Guinea and saw both the evidence of the start of that as well as the need for improvement in a number of areas. President Obiang and his country discovered natural gas a few years ago. Marathon Oil and Hess went in on a joint venture with them, built a billion dollar gas liquification facility in the Gulf of Guinea, where they now export around the world, including occasionally into Elba Island in the State of Georgia.

I went and saw firsthand where they're building a huge hospital in Malabo, one of the finest hospitals, quite frankly, I've ever seen. They have contracted with Israel to build that hospital. I went and saw the development of roads and streets and infrastructure that are a significant sign of investment of funds in the country.

But I also know education is at a low level as are many of the other resources that help a country and a people to improve. So, Mr. Chairman, I think your desire and wisdom in calling this hearing today on extractive industries and the value of the wealth of Africa, but the importance of seeing to it that the proceeds are reinvested in the best interests of the African people and obviously democracy is most appropriate at this time.

I look forward to hearing from our other witnesses and I'm pleased to share the minority side with the distinguished ranking member, Senator Lugar.

Senator FEINGOLD. Thank you, Senator Isakson. I want to thank you not only for your comments, but for your diligent involvement in the subcommittee throughout this Congress as long as you've been on here. It's been really appreciated how serious you've taken this and how you've taken a lot of time out of your busy schedule to be involved in these hearings.

I thank you.

Senator ISAKSON. Thank you.

Senator FEINGOLD. Senator Lugar.

STATEMENT OF HON. RICHARD G. LUGAR, U.S. SENATOR FROM INDIANA

Senator LUGAR. Thank you very much, Mr. Chairman. Let me just take this opportunity to thank you again for your leadership, not only this year with the subcommittee, but for many years. It's really been a passionate interest in Africa, which all the committee members appreciate.

I thank, likewise, Senator Isakson for being such an excellent ranking member on our side, because the two of you have conducted the 10 hearings that you've mentioned. They've been extensive in a year in which in some other areas of the committee activity there has not been the same due diligence perhaps. But it has been wonderful to work with you.

Let me just say I thank the chairman for holding this hearing on a topic that is clearly very timely. This summer I commissioned the minority staff of our Foreign Relations Committee to assess the

impact of the so-called resource curse and to evaluate the effectiveness of current United States and international efforts to remedy the problem. Staff examined more than 20 resource-rich developing countries, including five in Africa—Angola, Chad, Equatorial Guinea, Ghana, and Nigeria.

The resulting report, entitled "The Petroleum and Poverty Paradox," has gone to print and will be available in hard copy in the next few days. An electronic copy is available now on my Senate Web site.

Observers have long known that finding large deposits of oil and gas does not necessarily improve the quality of life for a developing country that is unprepared to handle a sudden windfall of resource wealth. It can often lead to corruption, setbacks in progress toward democracy, enrichment of elites, political instability, and a failure to invest in education, agriculture, and industry as they create jobs and produce exports.

Countries as diverse as The Netherlands, which discovered oil and gas in the 1960s, and Nigeria, which has been a major oil exporter for a quarter of a century, have suffered this resource curse in one way or another. The problem has come into sharp focus lately because oil discoveries in developing countries and the soaring price of petroleum and other key commodities have produced sudden new riches for many poor countries.

But the impact of this curse is not limited to the resource-rich countries themselves. The United States and other developed countries are also affected. As I noted in the introduction to the forthcoming staff report, it exacerbates global poverty, which can be a seedbed for terrorism. It dulls the effect of our foreign assistance. It empowers autocrats and dictators and it can crimp world petroleum supplies by breeding instability. The ongoing rebel attacks on Nigeria's oil facilities, for example, are a factor in today's record high crude prices.

Because the resource curse affects our economic, security, and humanitarian interests, it should assume a more prominent place in our foreign and development policy. On this score, my staff found that, while there have been some positive steps, progress has been uneven. Concentrated effort is necessary because once a country discovers oil the United States and other international donors quickly lose leverage. In Africa, staff found the United States programs intended to help countries manage their oil money wisely could only succeed when there is sufficient political will to fight corruption and to make other difficult choices on the part of the country.

In these countries, the international community should work to improve the institutional capacity to handle large capital flows and to address their pressing development needs. Staff concluded that U.S. policy in these African countries should work to build trust in long-term relationships and that this requires a strengthened United States Embassy presence.

The report also found that where national leaders are willing to face the problem outside experts can help promote stronger antigraft and transparency policies to make it harder for government officials to hide corruption and easier for citizens to follow the money to make sure it isn't wasted.

The Extractive Industries Transparency Initiative is one of several international efforts to fight the resource curse. The report urges the administration to give the EITI more vigorous support. It also urges the oil, gas, and mining companies, which often express support for transparency, to do more to encourage it in the countries where they operate.

I look forward along with you, Mr. Chairman, to the insights of our witnesses.

Senator FEINGOLD. I thank my colleagues for their comments.

Now we can turn to Mr. Moss for the first panel.

STATEMENT OF TODD MOSS, DEPUTY ASSISTANT SECRETARY FOR AFRICAN AFFAIRS, DEPARTMENT OF STATE; ACCOMPANIED BY STEPHEN J. GALLOGLY, DIRECTOR, INTERNATIONAL ENERGY AND COMMODITY POLICY, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. MOSS. Mr. Chairman, members of the committee, thank you for inviting me here to testify on Africa's resources. I want to thank the committee for their interest in this critical subject. I also want to note it's highly appropriate that we're here today to have a hearing on corruption in Africa in a room numbered 4-1-9.

Conflict resolution and the promotion of good governance are hallmarks of this administration's policy in Africa. Since 2000 we've seen seven major conflicts on the continent come to an end. U.S. policy in Africa has emphasized helping African countries build economies that generate prosperity and create a middle class that is the bedrock of democracy. The United States actively works to build partnerships with capable governments who can be allies in the fight against 21st century transnational threats such as crime, drugs, disease, and treatment.

To do this effectively, we've ramped up our cooperation and assistance. With the support of Congress, total U.S. aid to Africa reached an all-time high of $5.7 billion in 2007. But we also recognize that for these partnerships to grow and to be sustainable we must help countries develop the capacity to use their own resources more wisely. Managing the continent's resource wealth in a way that brings broad benefits to populations and reduces poverty is a key priority for both the United States and for Africa.

Unfortunately, too many countries have failed to leverage their natural resource wealth into strong economies and strong states. The good fortune of having valuable commodities in the ground should provide countries with an opportunity to make lives and societies much better, but the opposite often occurs. In too many countries oil, gas, and mineral wealth have instead become associated with high poverty rates, weak state institutions, corruption, and war.

Although the resource curse is not a uniquely African problem, Africa has many economies that rely on just one or two extractive exports. What explains this paradox? Economists tend to point to Dutch disease, whereby higher prices for a dominant export commodity crowd out the development of other industries, typically through the appreciation of the exchange rate. We see this in Nigeria, where high oil prices drive up the value of the naira and harm

the competitiveness of Nigerian industry and agriculture and also manage to turn the focus of politics to controlling the oil wealth.

A second concern is the reinforcement of weak and unaccountable state institutions. When a government gains its income from the activities of a few oil or mining companies, rather than from taxing its own population, there are few incentives to be responsive to the people's needs. In Nigeria, more than three-quarters of government revenue comes from the oil and gas sector, so there is little incentive, especially at a time of high international energy prices, to build a broader tax base or to deliver public services.

The most devastating effect is the vulnerability to conflict. It's no coincidence that some of the most vicious civil and regional conflicts have been sustained by competition over diamonds and minerals.

So the question is how to break this downward resource-governance cycle and create a virtuous one? Well, when possible we try to get in front of the problem. A recent oil find offshore Ghana is still some years away from production. Before the money flows, the Government of Ghana is actively seeking mechanisms to manage future oil wealth and to ensure that revenues are used in a transparent and productive way that bolsters its democracy. We are collaborating with the government, with oil companies, civil society, and relevant international organizations as the Government of Ghana develops the best model to achieve these goals.

In countries where the resource curse has already set in, we must encourage transparency and find other ways to create accountability. The Extractive Industries Transparency Initiative is one important part of this effort. EITI establishes accounting and reporting norms for revenues from natural resources. As the chairman noted, of the 23 candidate countries 16 are from sub-Saharan Africa. The United States fully supports EITI and has committed $3 million for fiscal year 2008 to a multidonor EITI trust fund. We've also supported through USAID specific EITI implementation projects in Nigeria and the Democratic Republic of the Congo.

But it is worth keeping in mind that EITI focuses on only one link of the chain that can turn oil and gold into roads and schools. The Kimberley process monitors and controls the rough diamond trade to prevent the use of so-called blood diamonds to finance wars and to enrich warlords. This initiative now encompasses 73 countries, has tracked $38 billion in international diamond trade, and covers virtually the entire international market.

Special arrangements have been implemented in extreme cases to put extra international oversight on key sectors to try to prevent revenues from leaking or being misused. In Liberia the Governance and Economic Management Assistance Program, or GEMAP, provides intensive external oversight on key ministries. GEMAP has been critical in allowing the trade in diamonds and timber to resume in Liberia. So far GEMAP has been highly successful in building confidence and improving fiscal management in Liberia.

I'll just note, the Liberia Forestry Initiative is one component of this. This includes a state-of-the-art chain of custody system where there are bar codes literally on every log that is cut down, and it's supported by a member of the U.S. Forestry Service, an expert that is based in the Embassy in Monrovia.

In Chad, on the other hand, a high-profile effort to sequester oil revenues offshore now appears to be failing. The different outcomes between Chad and Liberia and other cases highlight that donor-supported activities to strengthen revenue management are likely only to succeed where there is strong country ownership.

While these efforts are helpful, much of what is necessary to beat the resource curse are not necessarily new, high profile initiatives, but rather the solid footings of sound economic management. Publishing detailed budgets, independent auditing, expenditure tracking, and other practices that are the norm in the United States are still not prevalent in many countries. Technical assistance from AID and the U.S. Treasury in these practices have been helpful in Nigeria, Guinea, Liberia, Zambia, and elsewhere. In other countries, the U.S. works with the World Bank and other partners to promote budget management.

In spite of some progress thus far, we face continued challenges. There are severe limits to the influence of the international community when powerful or corrupt local politicians thrive by defending opacity instead of transparency. The emergence of new investors and donors who are less concerned about transparency and accountability can undermine voluntary schemes like EITI. High commodity prices similarly can reduce government incentives to seek reform.

One approach is to support reform from within by aiding those who are confronting entrenched interests. A more challenging avenue is to convince governments that the gains of transparency are greater in a political sense than the threat to rent-seeking. One key to this effort is to generate public awareness and demand for transparency, which is one reason that the EITI is such a valuable effort.

Stronger anticorruption efforts are also vital by both developing and developed countries. The United States is aggressively enforcing our own laws against foreign bribery. Other countries must do so as well. This year, at U.S. urging, the G–8 prepared for the first time an accountability report on actions taken by each G–8 country to implement anticorruption commitments.

Let me end on a positive note about how current global trends can be helpful in beating the resource curse. More and more African countries genuinely want to attract private investment outside of the extractive sectors and, fortunately, there is now greater investor appetite for Africa. As governments shift strategy from squeezing mining and oil to try to attract new companies in new sectors, they recognize that they need to make the business environment more attractive. This means better and more open economic policies and compliance with international business norms.

This shift also has political and governance benefits. By creating an independent business class, countries broaden the tax base and create a constituency for even more reform. The line between the future winners and losers in Africa will be drawn between the governments that recognize and seize upon this shift and those that cling stubbornly to the past. The policy of the United States is to help more countries make the right choice.

I'm happy to take your questions. Thank you.

[The prepared statement of Mr. Moss follows:]

PREPARED STATEMENT OF TODD MOSS, DEPUTY ASSISTANT SECRETARY, BUREAU OF AFRICAN AFFAIRS, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. Chairman and members of the committee, thank you for inviting me here today to testify on Africa's resources. Conflict resolution and the promotion of good governance are hallmarks of this administration's policy in Africa. Since 2000, seven major conflicts on the continent have ended.

U.S. policy in Africa has emphasized helping African countries build economies that generate prosperity and create a middle class that is the bedrock of democracy. The United States actively works to build partnerships with capable governments who can be allies in the fight against the 21st century transnational threats of crime, drugs, disease, and terrorism. To do this effectively, we have ramped up our cooperation and assistance. With the support of Congress, total U.S. aid to Africa reached an all time high of $5.7 billion in 2007—$4.5 billion in bilateral assistance and $1.2 billion in multilateral. But, we also recognize that for these partnerships to grow and be sustainable, we must help countries develop the capacity to use their own resources more wisely.

Managing the continent's resource wealth in a way that brings broad benefits to populations and reduces poverty is a key priority for Africa and the United States. Unfortunately, too many countries have failed to leverage their natural resource wealth into strong economies and strong states. The luck of having valuable commodities in the ground should provide countries with the opportunity to make lives and societies better, but the opposite often occurs. In too many countries, oil, gas, and mineral wealth have instead become associated with high poverty rates, weak state institutions, corruption, and war. Although the "resource curse" is not a uniquely African problem, Africa has many economies that rely on one or two extractive exports.

What explains this paradox? Economists point to "Dutch disease," whereby higher prices for a dominant export commodity crowd out the development of other industries, typically through appreciation of the exchange rate. We see this in Nigeria where high oil prices drive up the value of the naira, harm the competitiveness of Nigerian industry and agriculture, and turn the focus of politics to controlling oil wealth.

A second concern is the reinforcement of weak and unaccountable state institutions. When a government gains its income from the activities of a few oil or mining companies rather than taxing its population, there are few incentives to be responsive to the people's needs or wishes. In Nigeria, more than three-quarters of government revenue comes from the oil and gas sector, so there is little incentive—especially in a time of high energy prices—to build a broader tax base or to deliver public services.

The most devastating effect is the vulnerability to conflict. It is no coincidence that some of the most vicious civil and regional wars have been sustained by competition over diamonds and minerals.

How to break the downward resource-governance cycle, and create a virtuous one? When possible, get in front of the problem. A recent oil find offshore Ghana is still some years away from production. Before the money flows, the Government of Ghana is actively seeking mechanisms to manage future oil wealth and to ensure revenues are used in a transparent and productive way that bolsters its democracy. We are collaborating with the government, oil companies, civil society, and international organizations as they develop the best model to achieve these goals.

In countries where the resource curse has already set in, we must encourage transparency and find other ways to create accountability.

The Extractive Industries Transparency Initiative (EITI) is one important part of this effort. EITI establishes accounting and reporting norms for revenues from natural resources. EITI now has 23 candidate countries, 16 of which are in sub-Saharan Africa. The United States supports EITI as part of larger efforts to enhance transparency and accountability, and has committed $3 million for FY08 to a multidonor EITI trust fund. We have also supported through USAID specific EITI implementation projects in Nigeria and the Democratic Republic of the Congo. But it is worth keeping in mind that EITI focuses on only one link of the chain that can turn oil and gold into roads and schools.

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gram (GEMAP) provides intensive external oversight on key ministries, allowing the trade in diamonds and timber to resume. So far this has been highly successful in building confidence and improving fiscal management. In Chad, on the other hand, an effort to sequester oil revenues offshore appears to be failing. The different outcomes in these cases highlight that the donor-supported activities to strengthen extractive industries revenue management are likely only to succeed where there is strong country ownership.

While these efforts are helpful, much of what is necessary to beat the resource curse are not necessarily new high-profile initiatives, but rather the solid footings of sound economic management. Publishing detailed budgets, independent auditing, expenditure tracking, and other practices that are the norm in the United States are still not prevalent in many countries. Technical assistance from USAID and the U.S. Treasury in these practices has been helpful in Nigeria, Guinea, Liberia, and Zambia. In other countries, the U.S. works with the World Bank and other partners to promote budget management.

In spite of some progress thus far, we face continued challenges. There are severe limits to the influence of the international community when powerful, corrupt, or greedy local politicians thrive by defending opacity instead of transparency. The emergence of new investors and donors who are less concerned about transparency and accountability can undermine voluntary schemes like EITI. High commodity prices similarly can often reduce government incentives for reform.

One approach is to support reform from within by aiding those who are confronting entrenched interests. A more challenging avenue is to convince governments that the gains of transparency are greater, in a political sense, than the threat to rent-seeking. One key to this effort is to generate public awareness and demand for transparency, which is one reason the EITI is a valuable effort.

Stronger anticorruption efforts are also vital. Developing countries must take sustained efforts to investigate, prosecute, and punish corrupt officials and those who corrupt them. Our G–8 partners and other developed and emerging countries need to do more to go after businesses and individuals from their countries who bribe public and political party officials. The United States is aggressively enforcing our laws against foreign bribery; others must do so, too. Commitments to deny safe havens to corrupt officials and their assets need to be implemented.

Ultimately, there must be greater accountability by both developed countries and partner governments to follow through on commitments undertaken in this area. This year, at U.S. urging, the G–8 prepared for the first time an accountability report on actions taken by each G–8 country to implement anticorruption commitments. At their summit in July, G–8 leaders pledged to update this report annually. This effort complements peer review work done in the Organization for Economic Cooperation and Development and emerging efforts under the United Nations Convention Against Corruption.

Let me end on a positive note about how current global trends can be helpful in beating the resource curse. More and more African countries genuinely want to attract private investment outside of the extractive sectors. And fortunately, there is now greater investor appetite for Africa. As governments shift strategy from squeezing mining and oil to trying to attract new companies in new sectors, they recognize that they need to make the business environment more attractive. This means better and more open economic policies and compliance with international business norms. This shift also has political and governance benefits. By building an independent business class, countries broaden the tax base and create a constituency for more reform.

The line between the future winners and losers in Africa will be drawn between the governments that recognize and seize upon this shift and those that cling stubbornly to the past. The policy of the United States is to help more countries make the right choice.

Senator FEINGOLD. Thank you very much, Mr. Moss, and I will begin—we'll begin with 7-minute rounds for questions.

As you know, the EITI is approaching a critical stage with its first tranche of candidate countries soon to reach the deadline at which their progress toward implementation will be evaluated. This will be a major test for this program's credibility. What specifically is the United States doing to support African candidate countries in EITI implementation, as well as to provide high-level support for the broader initiative?

Mr. MOSS. As I mentioned, we have made a—we have committed to make a contribution for the trust fund. Then at the country level, the candidate countries, several of them have made proposals, mostly through USAID, for implementation technical assistance. The biggest programs there are in Nigeria and DRC.

I have Steve Gallogly, who is the State Department's point person on EITI. I'll invite him to add any additional details.

Senator FEINGOLD. If you could give me a sense of how much we're giving to the EITI and what kind of help we're giving to these countries that are doing these applications.

Mr. GALLOGLY. We're committing $3 million to the multidonor trust fund in fiscal year 2008. That will be transferred shortly, in the next week or two. And we've committed in the last 2 fiscal years $2 million helping, as you mentioned, DRC and Nigeria, as well as Peru.

In addition to that—that's specific programs—all embassies are involved. We have contacts all the time with the EITI secretariat. They reach out to us. We reach out to our embassies and engage when little issues come up involving civil society or the government or providing assistance. So we're there around the world in all these countries, and not just, of course, in the countries involved in EITI. Good governance and transparency are important everywhere.

Senator FEINGOLD. Mr. Moss, how has the State Department integrated support for EITI and its principles into its own aid program? Has there been any consideration of making U.S. nonessential assistance contingent on EITI principles, especially for countries such as Angola that are not even members of EITI?

Mr. MOSS. I think that when we're looking at country strategies transparency, promoting transparency and accountability, is absolutely a central focus. I'm not sure that's always reflected in the budget, partly because, as you know, a lot of our resources are directed to health and education sectors, but also because this kind of activity is not necessarily very capital-intensive. A lot of it is through encouraging governments to try to see the management and economic benefits of pursuing certain policies. These technical assistance programs tend to be just a very small number of people that are involved, and when you compare that to, say, a very large ARV delivery program, which is very costly, with lots of large budgets, it may look like it's very disproportionate. But that's partly the nature of the problem and the nature of the cost of trying to engage on these issues.

Senator FEINGOLD. But what about the contingency on EITI for countries like Angola?

Mr. MOSS. Well, with Angola, the Angolans have actually made some progress in transparency in their accounts. They are starting to publish a lot of their financial figures. The Angolans have expressed that they have political sensitivities to formally joining the EITI and they've opted not to do so at this time, but they're continuing to make the argument to us, to the IMF, and to the international community that they're still committed to those principles, even if they remain outside.

I think one thing I've noticed in my interactions with the Government of Angola is that it's actually looking to improve manage-

ment, and when it's presented in a manner of this is a way to help you manage your own resources better, they're very open to that. However, for historical reasons they're very sensitive to any idea that outside forces are coming in and forcing them to do anything.

Senator FEINGOLD. Where natural resources are intertwined with ongoing violence, how does the State Department seek to address that and integrate economic regulatory measures into conflict resolution, prevention, stabilization efforts? For example, it's widely known that the plundering of resources such as gold underpins the continued violence in the eastern Democratic Republic of Congo. What efforts are being made or could be made by the United States to regulate that trade?

Mr. MOSS. I think the violence that we're seeing, that we have seen, in eastern Congo is, of course, extremely worrying, and making sure that the peace in eastern DRC sticks is a very high priority of the State Department. The presence of so many lootable items in that region—mines, coltan, and different things that can be lifted out that are quite high value—have clearly been a factor in sustaining those conflicts and have allowed a proliferation of fragmented militias that can self-finance.

I think that we have tried to put a huge effort on political dialog in the east and on bolstering the peacekeeping forces that are there now and helping to build capacity of the Congolese forces to repel some of the insurgent forces operating there. I think it's important to recognize that the conflicts that we saw flare up this week in eastern DRC is really a continuation of some of the unfinished business from the Rwanda genocide of 1994, in this extremely complex problem that's going to, unfortunately, be with us for some time. Trying to find ways of squeezing those warlords so that they don't have the finances to continue is obviously an area that we take very, very seriously.

Senator FEINGOLD. In this discussion, of course, it's impossible to overlook the oil-rich Niger Delta, which is home to continuing unrest and insurgency, increasingly attacking oil installations. The United States obviously has a role in this situation, with Nigeria being the fifth biggest source of U.S. oil imports. What steps has the administration taken to address this growing unrest and what points of leverage do we actually have with the Government of Nigeria?

Mr. MOSS. Thank you for that question. I was actually in the Niger Delta earlier this year. I was able to go to Scravos and Kwaibo to see the issues firsthand. It is a very, very complicated situation down there. We have now, because the problem of the Delta has festered for so long, we've now seen what had been legitimate political grievances evolve into mostly criminal activity, and those criminal links have gone right into the government and into the military, making resolution of that difficult.

The new government that's been in place in Nigeria about 18 months came to power saying that the Niger Delta was one of their top priorities, resolving that issue. We took their word on that and we have had repeated dialog with them in a number of areas where the United States can help the Government of Nigeria deal with that problem. We've actually worked quite closely with the British Government in formulating these offers and the strategy. It looks

at helping to promote political dialog, helping to promote budget management, looking at what kinds of development projects could get started quite quickly so that there's visible progress, so that people feel that they're starting to gain some benefits, and last, to help deal with the security situation, to help promote responsible anticriminal and antimilitant security activity.

As you probably have seen, the Nigerian Government has gone through a period of uncertainty. The responsibility for Delta strategy has passed from different ministries. There is now supposed to be a Niger Delta ministry created. We don't yet know who will lead that. But several previous efforts to come up with a strategy have fallen by the wayside.

So we have continued, and we're doing so this week with the Nigerians at UNA in New York, continuing to dialog with them on the need to push the political dialog, to get projects started, and to work on transparency and budget management in the region.

Two things I'll note. One is that in Nigeria a lot of the power rests with the Governors, so we are actively reaching out to deal with some of the key states, because dealing with the revenue streams at those levels is now important. Many of the budget issues in Nigeria have seen great improvements from the previous Nigerian administration and now the problem is at the state level.

Senator FEINGOLD. Mr. Moss, I'm going to cut you off here because I'm way over my time. But I will return to this in the next round. But we want to give Senator Isakson a chance.

Senator ISAKSON. Is the United States the sponsor of EITI? Is that our initiative or is that a World Bank initiative?

Mr. MOSS. Well, it was started, if I remember correctly, it was started as a United Kingdom initiative, but the United States has been a firm supporter from the beginning.

Senator ISAKSON. I think you said 16 sub-Saharan countries are participating in EITI; is that correct?

Mr. MOSS. There are 16 African countries that are currently candidate countries, which gives them a window of several years to meet full compliance. There are no countries of the 23 that have been rated fully compliant yet.

Senator ISAKSON. But to help me understand it, is Equatorial Guinea one of those 16?

Mr. MOSS. Yes, it is.

Senator ISAKSON. When they were fully compliant, what would they be doing in terms of transparency and disclosure under EITI with regard to their natural gas liquification production?

Mr. MOSS. I'm going to ask Steve if he could detail the exact criteria for full compliance.

Mr. GALLOGLY. Full compliance would be they would be reporting their revenues that they receive from companies, including for natural gas and oil production and from the LNG facility, and companies would be reporting to the validators system that the EITI secretariat is setting up, independent validators. They would be reporting the same set of revenues that they paid to the government. The validators will look at reconciling that these match up, that they total up and they match up with what the government reported they received and the companies said they paid. Then there's a long procedure to make sure that this is done, that civil

society is involved and other elements of the society are involved. Then they would be considered compliant based on the finding from the validators, the independent validators.

Senator ISAKSON. I would hope that the end result is that transparency and sunshine is the best cure for corruption.

Mr. GALLOGLY. The idea is that this would be public, how much revenues that they have received from this, and so this would bring pressure on the governments from the people to say—the governments could say, well, a lot went to costs and this. So they have a number, what they received, and then people—the strong theory, I believe the people would say, What are we getting from these revenues? And the government would have to answer for these revenues. That's the fundamental basis.

Senator ISAKSON. In something like this, the carrot-and-stick approach always seems to work. What's the carrot for these 16 countries that are trying to become compliant?

Mr. GALLOGLY. The carrot is their image for investment. Foreign companies would be more interested in investing there because it tends to be more stable. There's a certain benefit in status among their competing countries. It's something the U.S. raises in meetings with all of these countries as an ask, something that we press for them to be involved actively in EITI. We press other countries that would be investing countries to support the process.

So it is a sense of developing a better reputation in terms of politically, geopolitically, but also as a place to invest.

Senator ISAKSON. And I presume the stick would be the absence of that investment because they weren't.

Mr. GALLOGLY. The main stick is the absence, and also it would affect the assessment, the U.S. assessment of that country's efforts. When they're saying, well, they ask us for certain things, we say, well, we're asking you to make progress. So it affects our assessment of that country, their engagement, their positive engagement. It's a plus in terms of dealing with the U.S. and other countries like the United States.

Mr. MOSS. If I may, the additional carrot—and quite frankly, the larger carrot—is and should be legitimacy with their own population, that then feels—many countries, the average person on the street feels that the government steals almost all the money. Nobody has any idea what's coming in or what's going out. But just this, even this small amount of disclosure, can actually have quite a big impact in helping to legitimize a government in the eyes of their own people.

Senator ISAKSON. Does China recognize EITI or in any way encourage countries to be compliant with EITI?

Mr. GALLOGLY. Well, when China invests in a country that is implementing EITI they're covered by the EITI voluntary rules just like anybody else. When we engage with China, we encourage them to encourage their companies to be as cooperative as possible, and we point out that it's in their interest because countries that use their revenues wisely are more reliable producers. We're all in this together. China needs oil as much as we do and they need reliable suppliers. So it's not in their interest to have unstable oil producers around the world. More stability in oil-producing states is better for China as well as for the United States.

Senator ISAKSON. I just wanted to echo what Secretary Moss said about the increased emphasis or interest in investment in Africa. Former Ambassador Andrew Young, who's a good friend of mine, a native of Georgia, runs Good Works, which is a major company in promoting African investment by United States companies into Africa. We've now started direct flights to South Africa from Atlanta because of the commerce that's increasing there.

So I think this program is a tremendous program that lets sunshine in as a kind of deterrent to corruption and as a positive reward to the people of Africa to ultimately get some of those revenues going into their economic and educational infrastructure within the country. So I commend you on what you're doing, and that's all the questions I have.

Senator FEINGOLD. Thank you, Senator Isakson.

Senator Lugar.

Senator LUGAR. Thank you very much, Mr. Chairman.

Mr. Moss, the chairman mentioned in his opening statement that there currently is legislation before the House and the Senate that would require United States listed companies to provide significant information regarding their financial contracts with natural resource-rich countries. Let me ask, what is the view of the administration on this legislation that would require this listing on the stock exchanges, and do you have a further comment as to the efficacy of that legislation, how it would work, and what the implications might be in the countries involved?

Mr. MOSS. We are aware of this legislation and we're supportive of additional efforts to put pressure on all the actors for greater disclosure. I think, however, comment on pending legislation, I think we probably wouldn't do that at this time.

Senator LUGAR. Well, why not? In other words, we are having a hearing today on this general subject and I'm just curious as to where we all stand on this.

Mr. MOSS. I think this would take—quite frankly, I think this would take a larger interagency discussion, and I certainly wouldn't want to speak for my Treasury and other interagency colleagues about where they stood on this.

Senator LUGAR. Well, let me then pursue a subject that you've just touched upon in response to my colleagues. In Nigeria, for example, for the moment our U.S. assistance level, I am advised, is about $490 million this year. Of that, $10.6 million comes for the program called U.S. Governing Justly and Democratically. Now, whether the $490 million covers much in terms of health and education—at least that is where much of it is aimed—what kind of dialog do we have with the Government of Nigeria with regard to our joint efforts, let's say budgetwise?

If Nigeria is receiving considerable resources from extractive industries and thus much better able to provide health, education, and welfare benefits for the citizens, conceivably our aid ought to go somewhere else, or be coordinated in a way in which we are not simply doing the work that Nigeria might do if it were in fact having this transparency, this dialog with all citizens, as to their welfare.

So describe in a sophisticated way really the intermeshing of these funds, the $490 million or whatever may be our contribution

this year—it may be more in the future—with this business of the new wealth, huge wealth, the ability to do very different levels of service, things that could not have been done before?

Mr. MOSS. Well, you're absolutely right that Nigeria has a lot of its own resources. Their foreign reserves now are north of $70 billion at the central bank. So the problem in Nigeria is not now nor really has it ever been a shortage of cash. The vast majority of—the vast, vast bulk of U.S. assistance program is PEPFAR-related. That is because Nigeria is such a critical country in the region and dealing with AIDS and other communicable disease there is of critical nature of making sure that it doesn't spread.

So again, this gets back to my point that it appears there's this large budget imbalance there, but that's because the transparency issues are not big ticket money items.

Our discussions with the Nigerians on budget issues, I think at the Federal level—the Government in Nigeria is different from other countries in Africa in that the states really have a very, very large portion of the budget and a lot of financial autonomy there. So I think our discussions at the Federal level have been quite good. The government, certainly in their reform period of roughly 2003 to 2005, put in place some quite good measures, including publishing details of the budget in the newspaper, which sounds small but actually had quite a big impact in Nigeria.

I think that that dialog is still ongoing, goes quite well. Those discussions will continue at the bank-fund annual meetings in a couple weeks time. Where we've tried to ramp that up is looking again at the state level. That's where the transparency is the least obviously, and quite frankly that's where the big problem is on the budget side. That is especially true in the Niger Delta, where 13 percent of total national revenue is spent in those core oil-producing states.

Again, this is a relatively slow process, helping to build capacity there and getting politicians to understand and to start to see that better management of these revenues can be in their benefit, rather than just seen as attacking a slush fund that they may be using for political purposes.

Senator LUGAR. Let me just ask, you mentioned there's maybe $70 billion of reserves now that have come largely from these extractive industries. This is at the central government level, presumably. Does each of the Governors have a different budget for health or welfare or what have you? Does not the government, the central government holding all these reserves, have something to say about the quality of care?

What I'm trying to get to is there clearly must be a budgetary implication of holding $70 billion in the bank in what you can do out on the hustings.

Mr. MOSS. Sure, sure. Well, we've certainly taken the view that their ability to spend—to save, excuse me—to save during an oil boom, which has really never happened before in Nigeria, is a positive sign of prudent management. One thing that the government has done that I think has been very positive is this year—in the past they had these fiscal responsibility bills at the Federal level—this year the government said, in exchange for getting additional cash out of a different account, not the reserves but the excess

crude account, you at the states have to pass your own fiscal responsibility bills. This year all states will do that. We'll see how it goes. It's the very first year and for many of these states it's the first time that they will publish a budget, that they will have really any level of open scrutiny. So I don't think it will be a pretty process, but it's the beginning of what will be a long-term road.

Senator LUGAR. It's a step forward. Congratulations to you if you've helped to induce that.

I yield the floor, Mr. Chairman.

Senator FEINGOLD. Thank you, Senator Lugar.

Back to the legislation that's been introduced. It would be extremely helpful if we could get the administration's view on this, either support or neutral or negative, some time in the near future, certainly before the end of the administration. I understand there's going to be a new administration, but we'd like the view of this administration, because I'd like to be able to argue, as I think others would, that there is a bipartisan interest in this and that it's a useful piece of legislation.

So please, as soon as possible if you could get us a more definite answer than we got. We do understand this bill was only introduced in July, but I think all of us would like to know the view.

I would like to clarify, since it was noted that the United States supports EITI, but we're not a member, are we, of EITI? And why is that?

Mr. GALLOGLY. We're not an implementing country in the sense that we implement the rules of EITI. We're a supporting country of the EITI and we're on the board of EITI. So it's not a legal international organization, but we're referred to as a member, and I think legitimately so since we're—other supporting countries are not implementing. The only supporting country that is implementing the EITI rules is Norway, and the other investor countries are not, that are perceived as not having the problem.

I think with this process it would complicate it much too much early if it was just focused on a global issue rather than some of the countries that face unique challenges separate from the challenges faced in Canada and the United States or Australia.

Senator FEINGOLD. Mr. Moss, back to the situation in Nigeria and the Niger Delta. Isn't it true that the United States is severely handicapped by our lack of presence in the Delta region and our inconsistent diplomatic approach? I have been to this region and that area in particular in the river and I recognize the insecurity in the Delta makes it very hard for U.S. Embassy officials, who are doing great work in an already tough posting, to travel there. But how do we collect information and develop our analysis of the situation?

Mr. MOSS. Sure. First, we do travel down to the Delta when it's possible for security reasons. As I mentioned, I was down there. Under Secretary Jeffrey was just down there about 2 months ago. Ambassador Sanders has been down a couple of times and she's continuing to try to work with diplomatic security to allow her greater freedom to go down there.

I think for the most part, the vast majority of the interaction with people in the Delta is done elsewhere in Nigeria, in Lagos. A lot of the political leaders and influential power brokers from the

Delta actually spend most of their time in Lagos. So it's actually quite easy to have access to them. So it's not as difficult as it seems, although we agree that we would like to get down there a lot more than we are able.

I know that it's not just the United States. All the diplomatic missions have problems getting their security people to allow them to go down there. But it's certainly something that I know that the current Ambassador is trying to push very strongly.

Senator FEINGOLD. We've already talked a good bit about this, but despite launching its own national version of the EITI and saying all the right things, reports suggest that the Nigerian Government is complicit in the illegal trade of oil and corruption, which as you've certainly suggested, remains rampant. How are we addressing these serious allegations and what impact do they have on our bilateral relationship with the Nigerian Government?

Mr. MOSS. It is clear that illegal oil bunkering—there are people complicit in different levels of government, starting at the very local level and working its way up. It does, quite frankly, affect our bilateral relationship quite seriously. I think that we have—we've been disappointed with the lack of movement, particularly with the economic and financial crimes commission, which had been built under the previous administration as a credible agency tackling probably Nigeria's No. 1 issue—corruption—and we haven't seen that momentum sustained and it has affected our bilateral relationship.

I think that what we've tried to do is to maintain an open dialog with the government wherever possible and try to find windows of opportunity where we can engage with them. But a critical part of that is getting the Nigerian Government to recognize that the Niger Delta is not just a domestic problem, that it is an international problem. For about the first year of the administration of the new Yar'adua administration, they were insisting it was a domestic issue and they did not want to internationalize it. I think we've successfully convinced them that that's no longer the case, particularly working with the British and other governments.

One point I would make on this, and this is partly sparked by some of the comments of Prime Minister Brown recently, is that there have been proposals, because Nigeria is important to U.S. energy security, that we should have increased U.S. military engagement in Nigeria. I think that further militarizing the Niger Delta would be highly unlikely to be constructive to enhancing our energy security.

It's something that we often hear proposed and it's something that I know the Nigerians are very sensitive about, and certainly we've taken the view that that would be counterproductive.

Senator FEINGOLD. In August 2006 President Bush launched an antikleptocracy initiative to hold foreign government officials accountable for high-level corruption. Following on this, Congress passed legislation in 2007 requiring the Secretary of State to investigate and ban foreign government officials involved in natural resource corruption from entering the United States.

What specific actions is the State Department carrying out to support the President's initiative and fulfill this requirement?

Mr. MOSS. Yes. Proclamation 7750 I think is a very welcome change that allows us to deny visas to the United States by folks that are involved in corruption. I think that it's something that we need to probably wield more liberally than we do now. I know that there's a hesitancy to become—to be used in what may be political tit for tat in a local country, where corruption allegations are quite easy to make and quite difficult to prove, and that we don't want to get drawn into that.

But I think that, especially officials that seek to be international influence peddlers or international statesmen certainly like to come to the United States, and I think that more aggressive use of the visa ban is something that we should certainly be looking at using more aggressively.

Senator FEINGOLD. Thank you.

Senator Isakson, do you have further questions?

Senator ISAKSON. No further questions, Mr. Chairman.

Senator FEINGOLD. Senator Lugar.

Senator LUGAR. Thank you, Mr. Chairman.

I just want to follow up for a moment on my questioning about the legislation that Senator Feingold had offered, and which, in fact, was offered in the House of Representatives, I understand it, the year before last. So it's been around for a while.

Without getting you into difficulty with your brothers over in the Department of the Treasury, who are unhappily absent today, apparently there have been some questions raised over in that area with regard to this legislation. I have no idea where the State Department may be. I just simply ask this as a matter of curiosity. How within the administration are questions of this sort resolved, or is there any attempt to do so? Because very clearly we're asking for transparency from African countries, and others for that matter—it doesn't necessarily apply just to Africa—but at the same time there seems to be some reticence on the part of our own officialdom and our own business community to come forward with this sort of information.

Do you have any further comment on this predicament?

Mr. MOSS. Well, I think that there are always concerns about U.S. competitiveness. But I do think that the U.S., because of the Foreign Corrupt Practices Act, quite frankly, has been at the forefront of the international community, well ahead of almost all other countries in terms of making sure that our own companies comply and don't contribute to these kinds of problems.

I will absolutely take your questions back to our colleagues and we'll have that discussion. I think that the possibility that this will be passed will help to galvanize minds and get them in the room to think a little bit harder about that.

Senator LUGAR. Let me also inquire, sort of, in the fine points of the EITI situation. Now, here we, the United States, as your colleague, Mr. Gallogly, has pointed out, has not become a member of EITI. Yet we are participating and helping out other countries. But what's the hangup here? In other words, why aren't we across the finish line, as a member? Is this once again a Treasury-State Department or a problem within State? What is the dilemma?

Mr. MOSS. I think that we are members. I think what Mr. Gallogly was trying to say is that we're not implementing the EITI

because the United States does not—is, first of all, not a resource—it wouldn't fall under the category that we have extractive exports above a certain threshold. So I think that in that sense, that's why Norway is the only OECD country that's implementing it, because of its significant oil exports.

Senator LUGAR. In other words, you have to have exports as a part of your GNP that are more significant than whatever ours are as a part of ours?

Mr. MOSS. I think the normal threshold is 25 percent of exports, is that right?

Mr. GALLOGLY. I'm not sure there's a technical number. I'll check that.

Mr. MOSS. I think it's more of a question of whether exports of extractive industries are so dominant to your economy that it's having a potentially harmful effect. Whether the U.S. would qualify in that manner, I think probably not. But I'll leave that to others to decide.

Senator LUGAR. I just raise the issue because clearly a good part of our questioning of you today has been about this issue of transparency and advocacy to other countries to adopt all sorts of reports and so forth that are alien perhaps to their cultures, but not unknown to ours.

Now, if, in fact, our problem is simply reticence on the part of those in government, business, or whatever, that they don't want to be troubled with all of this, or as a matter of fact they're all above it—these other countries though are now sort of developing themselves, as opposed to our institutions—this doesn't really set the right tone. I appreciate your candidness in addressing this, but also this forum for raising these issues that at least some of us are concerned about and will continue to raise questions about it with whichever administration happens to come along.

Thank you very much, Mr. Chairman.

Senator FEINGOLD. Thank you so much, Senator Lugar.

Mr. Moss, thank you for your testimony, your patience in answering our questions.

We'll now turn to the second panel.

Thank you, gentlemen. We'll ask that you limit your remarks to 5 minutes each and we'll certainly put your full statements in the record, and we'll begin with Mr. Taylor.

STATEMENT OF SIMON TAYLOR, DIRECTOR, GLOBAL WITNESS, LONDON, UNITED KINGDOM

Mr. TAYLOR. Thank you, Mr. Chairman. Thank you, members of the subcommittee. I'm very honored to be able to give you our opinions on these matters. Thank you very much for including our statement in the record. I'll briefly refer to a number of bits as we go through.

I want to focus a little bit on Angola because I quite categorically, I think, disagree with the description of Angola in terms of its performance that was given earlier. Angola sold roughly $43 billion worth of oil last year. We're now 6 years after the end of the fourth civil war. It still has the highest infant mortality rate in the world and one in four children don't make their fifth birthday, which I think really by anyone's description is a travesty.

We have to ask where the money has gone. This is one of the key reasons why we launched the "Publish What You Pay" campaign, of which EITI was a response to that initiative. Unfortunately, we can trace the story of Angola across the rest of the Gulf of Guinea to a greater or lesser extent for different reasons in different countries. The situation is pretty dire in Equatorial Guinea, in Congo-Brazzaville. We refer to a number of examples to illustrate that in our testimony.

What do we have to do with this? I think just to summarize, what we need to address these problems is actually a cocktail of mechanisms, of which EITI we've heard lots of very good things about it today and we continue to support it. We're also a member of the board and will continue to do so. We think that EITI is an excellent initiative. We want to see it progress further.

With that in mind, I also want to particularly thank Senators Leahy and Lugar for providing the additional funding for the EITI process coming from the United States. I think that's excellent. We'd like to see that continue.

I think a key thing for the new administration is that the next big EITI meeting is taking place in February, so we need to see the new administration very early on getting its act together, pardon the expression. But we need to see the new administration landing on its feet at that meeting, able to ramp up the U.S.'s participation in the process.

What could that be? I think more outreach. A question was asked earlier about China. Let's see China take part in the process.

With regard to the comments just now about U.S. participation, I think one of the key aspects of the EITI is that it's not a corruption club. It's a process of best performance. I think one of the best ways to bring that out would be to have participation by all the participants, and I include the United States. I include my country, the United Kingdom. Norway has shown a lead by doing so. But let's see the rest. Let's make this the good governance way to be, the global standard club. Really, I think we would like to see participation on that basis from the U.S.

Just one sort of correction fact. I don't think EITI is about participation on the basis of the amount of exports you have. It's about the governance associated with revenue streams. I'd just like to separate that out.

So what's missing? A couple of things on a positive note I think are an increased use of FCPA. We've seen an increased number of prosecutions. There's a glaring absence from the followup from the Riggs Bank scandal. We'd like to see that carried forward because there are serious questions to be asked there.

That brings the issue that this issue's not just about despotic leaders. It's also about company accountability, company performance in these matters. We've seen lots of examples. I won't cite them now because we've referred to some of them in the testimony. But I think it's very important to stress that. EITI deals with this from the government participation process and it rides over the way in which companies have to a greater or lesser extent been also complicit in the process.

With that in mind, what can we do about the countries for which the people in those countries simply don't have time to hold their

breath? I'm particularly thinking again of Angola here. How long do we have to wait with those circumstances in Angola before Angola might just volunteer?

With that in mind, I absolutely commend the EITD bill. We from our point of view do not accept some of the criticisms that have been levied by the industry side in terms of the addressing competitiveness aspect. Of the 15 world's biggest oil and gas companies, 14 would be included, most of which are not American companies. So the issue of competitiveness between U.S. and foreign companies, I just simply don't accept that. There are further statistics we cite in here.

But I think one of the beauties of the act is in one fell swoop in a country like Angola you would force disclosure on 30 of the 33 participants in country. That's not happened. The excuse that Angola has to sit there, as it sat in the first EITI meeting, oh, we're just going to sit on the fence, is just not acceptable with those kind of standards and conditions in-country.

So we really commend you, Mr. Chairman, for supporting that bill and we'd really like to see that go forward in the next process.

The last thing I wanted to talk about is the followup to the kleptocracy provision from last year. Thanks to Senator Leahy, through an amendment in the consolidated appropriations act, we've had a focus on the visa ban, which is clearly technically an issue that's caused difficulty, I should say, within the administration. It's mostly about resources. It's very hard if you've got hardly any staff available and not much in the way of financial resources to do this work, to really follow through.

So we think it's very necessary as time goes forward and we see a continuance of this process to add serious resources to look at this. If you look at the case of Angola, a country which is really, I would describe, as Dos Santos Inc., how can we create the disincentives from asset stripping? I think the real answer to that is to exclude nice places to go shopping. You know, if you want to steal tens of billions of dollars, as these people have, you don't want to spend it in Malabo or in Luanda. You want to go to Fifth Avenue or the Champs-Elysees, you want to go to nice places where you can buy luxury goods, as we found through the credit card statements of Dennis Chrystal and Sasu Engessu last year. Nice shopping in Spain and so on.

We need to seriously disincentivize that.

Senator FEINGOLD. Mr. Taylor, I'm going to ask you to conclude your remarks if you would.

Mr. TAYLOR. Just my concluding remark is I think we need to look at a mechanism that works, which needs resources to focus around the issue of asset freezing. I know that's complicated, but it needs to be seriously thought through, and we'd really like to work with members and also the administration when it comes in to address this problem.

[The prepared statement of Mr. Taylor follows:]

PREPARED STATEMENT OF SIMON TAYLOR, DIRECTOR AND COFOUNDER, GLOBAL WITNESS, LONDON, UNITED KINGDOM

Thank you, Mr. Chairman and members of this esteemed subcommittee, for the opportunity to share my views on the critical issue of Africa's extractive industries

and how we can help make those resources benefit the people in Africa rather than fuel corruption and conflict.

To be succinct, we are currently very far from a situation where the majority of Africa's oil and minerals are benefiting African people. Moreover, some natural resources continue to fuel armed conflict in Africa, as our recent research on the Democratic Republic of Congo and tin and coltan has revealed. However, the two most potentially far-reaching policies that I have witnessed in 10 years of working on this issue are currently under debate. If they go forward, these U.S.-led initiatives on natural resource transparency and accountability would have a very tangible impact in transforming incentives for corruption in Africa's natural resources. These initiatives would also be important for U.S. national interests in promoting stable business environments and strengthening U.S. energy security. I strongly commend you for holding this hearing today, Mr. Chairman, so we can discuss these important policy options.

1. AFRICAN OIL—LOTS IN OUR GAS TANKS, BUT WHERE ARE THE REVENUES GOING?

To illustrate both the problems and the solutions, let's start right at the gas pump. I would like to trace the supply chain from the gas pump backward through each step, highlighting exactly where the problems lie and how we can address each of those through concrete policy solutions.

Although few people realize it, more oil from Africa now goes into gasoline in the U.S. than from the Persian Gulf. According to the U.S. Energy Information Administration, 23 percent of U.S. oil imports currently come from Africa—more than the combined U.S. imports from the Persian Gulf, which are 18 percent.[1] The largest oil producing nation in Africa is now Angola, which now ranks as the seventh largest oil exporter to the U.S.—ahead of Kuwait, Russia, and Colombia combined.[2] So nearly one-quarter of American gasoline comes from Africa, and Angola is Africa's largest oil producing country. All told, Africa exported $249 billion in oil and minerals in 2006, nearly six times the value of international aid to the continent.[3]

Yet the enormous wealth generated from the oil and minerals has not trickled down to Africans, and in some areas these resources continue to fuel armed conflict. Global Witness field research in July and August 2008 uncovered substantial evidence of the involvement of armed groups, such as Rwandan Hutu Forces Démocratiques pour la Libération du Rwanda (FDLR), as well as units and commanders of the Congolese national army, in the exploitation and trade of minerals and metals in North and South Kivu. These economic activities are perpetuating instability in the region.

To continue with the Angolan example on oil, Angola exported an enormous $43 billion in oil last year, and its economy grew 21 percent.[4] Yet U.N. figures show that over two-thirds of Angolans still live on less than $2 a day, despite skyrocketing costs in the country: Rent for a modest apartment in the capital, for example, costs $1,500 a month.[5] Try affording that on $2 a day. Oil wealth has also not improved the horrific health care system in the country: Angola still has the highest infant mortality rate in the world.[6] Not surprisingly, our research and IMF figures uncovered that Angola could not account for an average of US$1.7 billion per year from 1997–2001, which is more money than the government spent on health and education during that period.[7] A lack of transparency has meant that billions of dollars cannot be accounted for, from Angola to Equatorial Guinea.

2. THE SUPPLY CHAIN AND HOW WE CAN INFLUENCE IT

So what exactly is the supply chain for African oil coming to the U.S., and how can we influence it to help reverse the resource curse?

Step 1: Awarding of concessions

Much of the corruption associated with oil and minerals happens at the beginning of the process—right when contracts are awarded to oil companies, or the oil services companies that increasingly construct and run oil infrastructure in Africa.

As former Halliburton executive Albert Jack Stanley admitted just 3 weeks ago in a guilty plea to a Houston federal court, Halliburton's engineering subsidiary Kellogg, Brown, and Root paid over $180 million in bribes to the Nigerian Government to win a natural gas plant contract.[8] Sadly, this is only the tip of the iceberg. Oil services company Baker Hughes plead guilty to violating the Foreign Corrupt Practices Act in Angola, Nigeria, Kazakhstan, Russia, Indonesia, and Uzbekistan; the Angolagate scandal is about to go to trial in France, in which the French Government lined up the French oil company Elf to gain oil concessions in Angola and involved illegal arms shipments; the list goes on.

So transparency has to start with the award of rights to explore for oil and minerals, and with the award of contracts to build oil infrastructure. The U.S. has an exemplary record amongst major oil-consuming countries for prosecuting corrupt acts by its own companies, and of course the FCPA was groundbreaking in its time. Still, there are a couple of big unresolved FCPA cases where we are rather surprised at the lack of progress—notably the SEC investigation into the Riggs Bank affair, which I will talk about shortly.

Aside from this question of law enforcement, the U.S. should lead other donor governments to encourage resource-rich countries to ensure that oil and mining concessions are awarded in a transparent way, with independent oversight to ensure there's no corruption. U.S. companies would clearly gain from such a policy: Since their technical expertise is superior to companies from many other countries, they have most to gain from licensing processes which are free from corruption.

That said, of course there is a risk that people will say that the U.S. is simply lobbying for its own companies to get preferential access to the oil. But that's easily avoided if these reforms to licensing are presented as a global standard which should apply to all companies, including the Chinese and the Russians and the Indians, as well as the Europeans and the United States.

So how to enact such reforms? Well, the U.S. has influence in some countries via its aid programs. In others, the governments themselves may be supportive if they feel that transparency will enable them to get a better long-term deal for the country. There are also such initiatives as the World Bank's new project, launched earlier this year by Bank President Robert Zoellick, to provide resource-rich countries in Africa with more technical support to resource governance across the value chain. We feel that the U.S. should support that process as far as it can.

Step 2: Revenue payments for oil, gas, and minerals

The next step in the supply chain is equally critical: Revenue payments by extractive industry companies to governments. When ExxonMobil or BP pays Angola for its oil, it does so in the form of taxes, royalties, and signature bonuses. Oil companies typically operate under production-sharing agreements which means that they are also providing the government with a share of oil from the field: This is often a huge source of earnings for the country.

But in the majority of resource-rich countries in Africa and around the world, these payments are still kept secret. Citizens who demand for better services from their governments in Africa are often met with the response, "Well, the oil companies didn't pay us enough, they are exploiting us." These citizens have no way of verifying how much the companies do actually pay, because it is not made a matter of public record. Oil companies do not disclose the payments in their annual reports, and governments do not disclose receipt of the payments in their budget reports. And so the cycle continues—no transparency about the billions of dollars exchanged for oil and minerals, and no accountability for these revenues because no one knows how much actually exchanged hands.

The secrecy that results from this opacity is bad for American consumers and bad for Africans, and it makes it much easier for corruption to take place. Equatorial Guinea, for example—one of the top 20 oil exporting countries to the U.S.—keeps over $2 billion of its government revenues in private offshore banks, according to the IMF.[9] When it deposited $700 million of this money into Riggs Bank here in Washington, DC, the Senate Permanent Subcommittee on Investigations found dozens of irregular payments, multiple individual signatories to the accounts, and little due diligence paid to the accounts. Riggs shut down as a result in 2004, but the corruption in Equatorial Guinea continued. Two years later in 2006, the son of the President of Equatorial Guinea bought a mansion in Malibu, California, worth $35 million, which includes an 8-bedroom house, a 9-hole golf course, swimming pool, and 15-acre beach-view property, despite his official salary of just over $60,000 a year as a government minister.[10]

This story is not confined to Equatorial Guinea alone. Whilst acting as an Angolan Government official, arms dealer Pierre Falcone reportedly bought the most expensive home ever purchased at the time in Arizona for $10.6 million, becoming a neighbor to Chicago Bulls owner Jerry Reinsdorf in Paradise Valley.[11] The list goes on.

In order to help address the revenue payments issue, an international initiative was launched in 2002 by the British Government, the Extractive Industries Transparency Initiative (EITI). Global Witness sits on the board of EITI, strongly supports the initiative, and has made every effort to strengthen it since its launch. Last year, Congress voted to finally give the U.S. an important voice on EITI implementation by upping its contribution to the EITI Trust Fund to $3 million, thanks to efforts in the Senate by Senators Lugar and Leahy.

The reality is that EITI is an impressive effort, particularly in the way that it brings together different stakeholders: Governments, companies, and civil society groups. Where else would you find a representatives from ExxonMobil and Chevron sitting at the same table as civil society activists from some of the poorest countries in Africa? To buttress current efforts on EITI, the U.S. Government should elevate EITI to a higher priority and do more outreach at a high diplomatic level to ensure proper implementation and integrate EITI as a requirement through AGOA and the MCC. EITI will be at a critical juncture for implementation over the next year, and so State Department engagement will be important.

But EITI is not a golden key, so to speak, mainly because it is voluntary for countries to join. As a result, the world's biggest oil producers are simply not joining. Only one of the world's top ten oil-producing countries—Norway—has committed to implement the EITI. Only one OPEC member country, Nigeria, is a member. Most of the other members are small to mid-ranking producers. These countries deserve credit for their reform efforts, but the fact is that they account for a small fraction of world oil supply. The country which gave rise to the whole oil transparency movement, Angola, is not a member of EITI and shows little appetite for joining the initiative.

The problem of transparency is urgent because a number of countries already having hit or soon hitting their peak of oil production, meaning that the windfall of oil revenues will start to diminish and eventually come to an end. For example, Gabon's production peaked over 10 years ago in 1997. So these countries don't have that much time to ensure that the revenues are really used to develop their economies for the time when they can no longer rely on oil. EITI is an excellent tool, but it is not sufficient.

3. A HISTORIC OPPORTUNITY: THE EITD ACT

Thankfully, today we have a historic opportunity to be a part of that solution, starting right here in Congress. Introduced in the Senate by Senator Chuck Schumer and cosponsored by Senators Feingold, Leahy, Lieberman, Durbin, and Cantwell, and introduced in the House by Financial Services Committee Chairman Barney Frank, the Extractive Industries Transparency Disclosure Act, the EITD Act, provides exactly that opportunity. The bill, S. 3389, provides for a low-cost, high impact SEC rule change requiring the disclosure of payments to foreign governments by oil, gas, and mining companies. Under the bill, all extractive industry companies that are listed on U.S. capital markets—including foreign corporations—would publish their revenue payments to all foreign governments on a country-by-country basis through their regular annual filing reports to the SEC.

The EITD Act is critical for establishing freedom of information and a global standard for transparency in the oil sector, at a time when oil company profits are reaching record levels. It would promote U.S. interests by combating corruption and improving the stability of U.S. investments abroad through improved governance in oil-producing countries. Importantly, the bill is a powerful tool for poverty reduction, as the transparency will enable oil revenues to be managed in a more accountable manner.

The importance of this bill lies in its global coverage; with one swoop, 14 out of the world's 15 largest oil and gas companies that are publicly traded would be covered by the bill, and 27 of the top 30 companies if the list is expanded. The overwhelming majority of these corporations are non-U.S. companies, with the bill requiring disclosure from foreign corporations including the three major Chinese oil companies, Russia's Lukoil, and Brazil's Petrobras.

WORLD'S TOP 14 PUBLICLY TRADED OIL CORPORATIONS COVERED BY THE BILL

Petrochina (China)	Lukoil (Russia)
China Petroleum (China)	ENI (Italy)
BP (U.K.)	Repsol (Spain)
Petrobras (Brazil)	ExxonMobil (U.S.)
Royal Dutch Shell (Netherlands)	Chevron (U.S.)
Total (France)	ConocoPhillips (U.S.)
StatoilHydro (Norway)	3Marathon Oil (U.S.)

U.S. companies would not be put at a competitive disadvantage to foreign corporations because of the bill. While the EITD Act would not cover all National Oil Companies (NOCs)—state-owned companies that predominately operate solely within their home countries and do not compete internationally with U.S. oil companies—the vast majority of the internationally competitive companies (including NOCs that

operate internationally, such as Petrochina, Petrobras, and StatoilHydro) would have to report payments, and so a level playing field would ensue for all extractive industry companies. Back to our example of Angola, 30 out of the 33 operating oil companies in Angola would be subject to disclosure under the bill. Armed with real numbers from real oil companies, civil society groups in Angola could finally put some muscle in their fight for social services and accountability for the country's oil wealth.

Transparency is not the silver bullet to solving the resource curse, but it creates a critical underlying business environment that makes it more difficult to engage in corruption. If all payments are transparent, opaque money transfers will be harder to hide, secret bank accounts will be harder to open, and company and government finances will be more open to public scrutiny.

4. ACCOUNTABILITY: THE FCPA

If transparency creates an important enabling environment for improved resource governance, then accountability is the critical next step to make it happen. Going back to the supply chain for our gasoline, if revenues for the oil to produce the gasoline went astray, what accountability is there for those funds and the individuals, officials, and/or companies involved in those transactions? For example, now that Halliburton's subsidiary has plead guilty of paying $180 million in bribes, what accountability is there for Halliburton, what accountability is there for the Nigerian officials who took the bribes, and what mechanisms are there to return the stolen moneys? What about future such cases elsewhere in Africa and more globally?

For the first question, Congress created a very important first step in accountability 31 years ago with the passage of the Foreign Corrupt Practices Act (FCPA). This law, which makes it illegal for U.S. companies to pay bribes to foreign government officials, is far-reaching. The law affects American and foreign corporations alike, as Norwegian oil company Statoil and the British firm Vetco have been found guilty of making illegal payments under the law to Iran and Nigeria, respectively.

FCPA enforcement has stepped up dramatically in recent years, thanks to much more rigorous scrutiny by the U.S. Department of Justice and the SEC. The two agencies prosecuted a record 38 cases last year, more than double the number of prosecutions in 2006 (15 cases).[12] This has resulted in a high percentage of convictions, including prison sentences for several former senior executives. An overwhelming 91 percent of the individuals to resolve their charges have plead guilty or been convicted.[13] This thorough FCPA enforcement amounts to serious corporate accountability, and we welcome Congress's foresight with the FCPA, as well as the DOJ and SEC's skyrocketing efforts in applying the law. However, the FCPA investigation on Equatorial Guinea that was reported on following the Riggs Bank Senate investigation has never been followed up, and we urge the enforcement agencies to follow up this case. In addition, other countries—particularly our European allies—must follow suit and take more robust action to strengthen their corporate accountability frameworks. The OECD Anti-Bribery Convention remains very poorly enforced, particularly in the wake of the multimillion dollar BAE bribery scandal in the U.K.[14] We urge Congress to work with the new administration to work with the U.K. and other European countries to clean up their acts.

5. ACCOUNTABILITY II: A CRITICAL NEW OPPORTUNITY FOR CONGRESS AND THE ADMINISTRATION THROUGH ANTI-KLEPTOCRACY POLICIES

But what about the other key element of accountability—holding government officials to account for stolen funds? Unless these two tools work in tandem, there will still be enormous incentives for continued corruption relating to natural resources in Africa and elsewhere.

Unfortunately, accountability of government officials still needs to go further. Officials from Equatorial Guinea to Kazakhstan to Angola who have been named in prosecutions relating to the siphoning off of funds from their country's oil wealth remain in office today.

The good news is that some groundwork has been laid to begin changing this culture of impunity, and that the U.S. Congress and the administration can be at the forefront of this global fight. The bad news is that there is a very long way to go. Last year for the first time ever, Congress passed an Anti-Kleptocracy provision in the Consolidated Appropriations Act (section 699L), thanks to an amendment by Senator Leahy. This provision denies entry to the U.S. to all foreign government officials whom the Secretary of State believes there to be credible evidence that they were involved in corruption relating to natural resources.

This builds on President Bush's announcement of a "National Strategy to Internationalize Efforts against Kleptocracy" in August 2006, and Presidential Proclamation 7750 before that. The President stated in 2006 that:

> High-level corruption by senior government officials, or kleptocracy, is a grave and corrosive abuse of power and represents the most invidious type of public corruption. It impedes our efforts to promote freedom and democracy, end poverty, and combat international crime and terrorism. Promoting transparent, accountable governance is a critical component of our freedom agenda. Today, I am announcing a new element in my administration's plan to fight kleptocracy . . . which sets forth a framework to deter, prevent, and address high-level, public corruption. It identifies critical tools to detect and prosecute corrupt officials around the world, so that the promise of economic assistance and growth reaches the people.[15]

Despite worthy efforts of some dedicated bureaus, overall enforcement of this agenda has been very limited. A small number of cases were brought under Proclamation 7750, and while some dozen cases reportedly are in the pipeline, it is our understanding that no cases for the Anti-Kleptocracy provision have been brought forward to date since the provision's passage 9 months ago. Funding and staffing constraints for the enforcement agencies are a serious consideration here. But more is at stake. According to numerous informed sources, some U.S. ambassadors are still shocked at the idea that corruption and kleptocracy should be raised with foreign governments. This was not on the U.S. foreign policy agenda for years, and these ambassadors do not understand why it should be. We would urge Congress to work with the administration to change this culture as a matter of priority.

Congress currently has an important window of opportunity to strengthen the accountability agenda on natural resources. A new Anti-Kleptocracy provision in the draft Senate version of the State and Foreign Operations bill, section 744, adds to the visa ban with an asset freeze on foreign officials found to be engaging in corruption.

From my many years of working on this issue, this provision, if implemented properly, has the potential to have a very wide-ranging impact on resource-related corruption in Africa and elsewhere. Leaders involved in corruption do not want to spend their money in Kinshasa or Luanda, they want to come to Fifth Avenue, put their money in U.S. or European banks, and buy luxury cars to drive up the California coast.

For example, the President of the Republic of Congo-Brazzaville and his 50-person entourage that included several members of his family and his wife's hairdresser, spent $295,000 during an 8-night stay in New York's Waldorf-Astoria Hotel, including $13,000 in room service and bottles of Cristal champagne.[16] Interestingly, this spending spree took place exactly 1 month after the World Bank and IMF granted the country debt relief under the Highly Indebted Poor Countries Initiative (HIPC) for being too poor to pay off its international debts, and the hotel bill totaled more than the U.K.'s total humanitarian aid to the Republic of Congo for the same year.[17] The Republic of Congo is another important African oil exporting country to the U.S., producing 247,000 barrels of oil per day.[18] Last year, Global Witness published documents that showed that the President's son, Denis Christel Sassou-Nguesso, paid off personal credit card bills for Louis Vuitton and Christian Dior luxury items totaling several hundred thousand dollars with funds from his own shell companies. These funds appear to have derived from the proceeds of the state oil marketing company, Cotrade, which Mr. Christel heads.[19]

In other words, if an Anti-Kleptocracy provision with a travel ban and asset freeze becomes law and is as rigorously enforced as the FCPA, it will create a serious disincentive for corruption among African and other foreign government officials. Just as we use all the financial and diplomatic tools available to us for antiterrorism efforts, we must equally use all foreign policy instruments in the fight against corruption. I urge Congress to pass section 744 of the Appropriations bill and to provide additional funding to operationalize the visa ban and asset provisions to the enforcement agencies.

Furthermore, the Regional Bureaus of the State Department should thoroughly sensitize U.S. ambassadors on the Anti-Kleptocracy strategy and Appropriations provisions.

6. CONCLUSION

As I conclude, Mr. Chairman, let me go back to the gas pump here in the U.S. We now know that nearly a quarter of the imported oil that goes into the gasoline that goes into our cars comes from Africa, and the road that that oil travels takes

us through secret financial payments, financing of ill-gotten mansions in Malibu and luxurious hotel bills in New York, bribes paid by American and foreign companies, and very little improvement in the day-to-day lives of most Africans.

In sum, we are still far from eradicating the disease known as the "resource curse" in Africa. But there is now growing attention to this issue, from your holding this hearing today and a related hearing chaired by Senator Durbin down the hall to Bob Zoellick's new initiatives at the World Bank.

But more importantly, Mr. Chairman, Congress now has two critical legislative opportunities—one on transparency and the other on accountability—to make a real impact on reducing incentives for natural resource corruption. The EITD Act and the Anti-Kleptocracy provision are the most serious pieces of legislation I have seen on this issue in over a decade. These initiatives will not only help Africans but will benefit U.S. energy security through better governance in oil-rich countries. The next time we stand at the gas pump, let us not forget where that gas comes from and what we can do to change the corruption that accompanies it.

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[1] Energy Information Administration statistics on U.S. oil imports from 2007. Available at http://tonto.eia.doe.gov/dnav/pet/pet_move_neti_a_ep00_IMN_mbblpd_a.htm.

[2] Angola produced 1.9 million barrels of crude oil per day in June 2008, ahead of Nigeria's 1.74 million. In terms of U.S. imports of crude oil, Angola totaled 636,000 barrels, while Kuwait stood at 179,000 barrels, Russia was at 228,000 barrels, and Colombia exported 177,000 barrels. "Angolan Oil Exports Expected To Rise 14% in October," African Oil Journal, August 25, 2008. Available at http://www.africanoiljournal.com/08-25-2008_angola.htm. For U.S. oil import statistics, see U.S. Energy Information Administration, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html.

[3] Total international aid was $43 billion. OECD Statistical Data, available at www.oecd.org.

[4] OPEC Revenues Fact Sheet, U.S. Energy Information Administration, 2008. Available at http://www.eia.doe.gov/emeu/cabs/OPEC_Revenues/Factsheet.html; the IMF estimates that the Angola's GDP grew 21.130 percent in 2007. IMF World Economic Outlook Database. Available at www.imf.org.

[5] "Angola's Poor Left Out of Oil Bonanza," AFP. September 3, 2008. Available at http://afp.google.com/article/ALeqM5hA8pYy2PEMsj5tOj4lpuR7BgWVuQ.

[6] This is 184 out of 1,000. CIA World Factbook, June 2007: https://www.cia.gov/library/publications/the-world-factbook/index.html.

[7] That spending totaled $4.27 bn. "Time for Transparency," Global Witness, March 25, 2004: http://www.globalwitness.org/media_library_detail.php/115/en/time_for_transparency.

[8] "Halliburton Ex-Official Pleads Guilty in Bribe Case," Wall Street Journal, September 4, 2008.

[9] In 2006, Equatorial Guinea kept $2.099 billion of its government revenues in private banks abroad, and in 2007 the IMF estimates that this figure jumped to $2.893 billion. IMF Article IV Consultation Staff report, May 2008. Available at https://www.imf.org/external/pubs/ft/scr/2008/cr08156.pdf, p. 33.

[10] Global Witness, "African Minister Buys Multi-Million Dollar California Mansion," 8 November 2006, available at http://www.globalwitness.org/media_library_detail.php/468/en/african_minister_buys_multi_million_dollar_califor.

[11] Ken Silverstein, "The Arms Dealer Next Door," In These Times, December 2001. Available at http://www.inthesetimes.com/issue/26/04/feature4.shtml.

[12] Gibson, Dunn, and Crutcher LLP, "2008 Mid-Year FCPA Update." Available at http://www.gibsondunn.com/Publications/Pages/2008Mid-YearFCPAUpdate.aspx.

[13] Ibid.

[14] http://www.iht.com/articles/2008/07/30/business/30bae.php.

[15] "President's Statement on Kleptocracy," August 10, 2006. Available at http://www.whitehouse.gov/news/releases/2006/08/20060810.html.

[16] http://www.timesonline.co.uk/tol/news/world/article729928.ece.

[17] Ibid.

[18] This was in 2006. Energy Information Administration data for Congo (Brazzaville), available at http://tonto.eia.doe.gov/country/country_energy_data.cfm?fips=CF.

[19] Global Witness, "Congo: Is President's Son Paying for Designer Shopping Sprees With Country's Oil Money?" Available at www.globalwitness.org.

Senator FEINGOLD. Thank you, Mr. Taylor, and I appreciate your highlighting Angola. I was first basically exposed to Africa in Angola in 1994, and in particular this issue, and returned again in 1999. We have this tendency, because we have so many difficulties with our situation domestically and internationally, to say, well, Angola's getting better, and then you don't apply the kinds of tests and strength that you have to.

I want to assure you that I as chairman of this committee will continue to focus in particular on Angola because of my longstanding concern about the resource problems there.

Thank you.
Mr. Goldwyn.

STATEMENT OF DAVID GOLDWYN, PRESIDENT, GOLDWYN INTERNATIONAL STRATEGIES, WASHINGTON, DC

Mr. GOLDWYN. Thank you, Mr. Chairman, members of the committee, for holding this hearing.

In my view there has been some real important progress on the resource curse over the last 5 years, but there have been major changes in Africa as well in the energy sector and our policy hasn't kept up with it. The reality is that, despite this progress, we really haven't made much of a dent in this problem, and the United States in particular has not been a player in this issue, not a material player, and I think we need to get ourselves organized and deploy resources in a different way, because we can make a difference.

It's worth noting the progress because when you work this long on something and there's been progress you want to note it. EITI has gone from being a British initiative to being internationalized. Twenty-three countries have stood up to be graded—some may pass and some may fail. That's real progress.

On the IMF side, they have now mainstreamed fiscal responsibility, fiscal monitoring, into their doctrine. They're giving a lot of countries help by helping the finance ministries learn how to manage the sector. They're trying to spy on their own national oil companies so they can figure out where the money is. That's progress.

The World Bank is giving technical assistance in this area and EITI Plus Plus—I think they're coming up with a different name—is going to help countries look at how the sector is managed. That's very important.

International oil companies have figured out that transparency is a way they can have a level playing field and they can enhance their reputations by showing they're not the ones with the hand in the till. For some national oil companies, they've learned that transparency pays. Particularly in North Africa, they're using tenders and things like that. They find out they can make an incredible amount of money by being transparent.

That's all great, but in terms of poverty reduction we really haven't made much of a dent, and there are a lot of new challenges. The first one is political will, and that is really critical. Even in Nigeria, where I helped lead a very extensive effort to monitor physical and financial and the process of the business, without government buy-in, without government leadership, you really can't solve problems, you can't make progress. That's the biggest challenge.

Capacity. A lot of governments that are now doing exploration don't have the ability to negotiate the deals, much less manage the money. The number of countries has skyrocketed. Every country in Africa with a coastline has exploration going on right now.

The focus really should be on business operations. I'm an EITI validator and I hope to validate some countries soon. EITI is important, but the real corruption is not hands in the till for the most part. The real corruption in the industry is how the business is done, who gets the acreage, how do you trade oil for product. It's

how it's operated. So a reconciliation of dollars and cents is important for spreading sunshine and you need to do it, but it doesn't get at the heart of the problem. So we need to have a much more expansive view of what's going on.

Certainly in terms of social investment, the expenditure side, we're really not doing enough as a U.S. Government, as others, to figure out once you know how much money is there, how is it being spent; is it being spent in the right sector.

For the U.S., we have not kept up with the changes in the market in a lot of different ways. Part of this—Senator Feingold, in your Georgetown speech you looked at this—there are crises in other areas. Diplomats get drawn away. Iraq, things like that. The Africa Bureau is a crisis bureau. They have five crises on their hands and that's what they do. They don't build relationships.

But the United States has lost influence in Africa in a dramatic way. We have first disengaged diplomatically. Eight years ago we had a United States-Nigeria working group, we had a United States-Africa energy ministers partnership, we had a dialog with Angola. We used to have a relationship with these people to talk about the things we disagreed on. Those were all dismantled. There are governments there we hardly even talk to except to scold them.

So we only have a modest diplomatic presence in northern Nigeria and places like that, so we're not really on the ground. And we spend a lot of money in Africa, mostly on health, but a minuscule amount in governance, and particularly on transparency. In our system it's up to the regional or the country manager in every country to decide how they want to spend the money. It's not driven from the center. So there's no coordination, no focus. Security is a problem now. And the Niger Delta. The Niger Delta is important for strategic reasons, but primarily if we don't deal with Nigeria, which is the biggest case there, then we're not making a material difference on transparency.

So I think what the United States needs to do is get organized in a different way. First we need a policy, in which security, stability, and energy stability are all part of one whole. We need resources. We need somebody on the seventh floor of the State Department whose job it is to lead this policy. We need to have diplomats and we need to have untied technical assistance for things like EITI.

We need respectful engagement with these countries. Our people need to go to those countries and talk to them, not only about what we're interested in, but what they're interested in, because if we talk to them about development, about power generation, about water, then they have a stake in the relationship. We're not just going over there to tell them how we think they ought to do their business, which requires diplomatic resources.

We need to integrate security into the political calculus, because security is what a lot of these countries are interested in. Not giving weapons without any conditions about human rights, but if we talk to them about their security, improving Coast Guards, protecting assets, we're having a conversation about something in which they have a stake.

In the Niger Delta, we have not been materially engaged, not effectively engaged. We have to be humble. It is incredibly complex.

But the fact is if we don't help quietly on how they can do the development, and at a high level on doing the diplomacy, we're not making much of a difference. We need to play well with others on assistance. The U.K. spends a lot of money. We need to work together. And we need to engage China and the EU on their issues.

We can only do so much with policy papers and State Department wiring diagrams. The main thing we need is leadership, people in positions who are willing to make a difference. In this case I thank the committee for your leadership on this. Your oversight makes a difference to the executive branch and hopefully with your continued interest in this we'll have a policy which can get some results.

Thank you.

[The prepared statement of Mr. Goldwyn follows:]

PREPARED STATEMENT OF DAVID L. GOLDWYN, PRESIDENT, GOLDWYN INTERNATIONAL STRATEGIES, WASHINGTON, DC

THE CHALLENGE TO U.S. INFLUENCE

Chairman and members of the committee, it is an honor to speak with you today about Arica's extractive industries in a time of record commodity prices. My testimony derives from the energy chapter of an upcoming book, to be titled "Africa Policy in the George W. Bush Years: Critical Choices for the Next Administration." The book will be published by the Center for Strategic and International Studies (CSIS) in January 2009. My own perspective derives from my experience serving the U.S. Government in the State and Energy Departments, as a leader in the extractive industry transparency movement, and as a senior associate in the CSIS energy program. Today, I will discuss the implications of the changes in the global energy market for Africa and the U.S., Africa's role in U.S. energy security, current trends on the continent, challenges for the new administration, and recommendations for U.S. policy.

Changes in the Global Energy Market

There have been major changes in the global energy market since 2001—a spike in global demand, led by developing Asia; a 340 percent [1] increase in nominal prices, a vast increase in the number of African countries undergoing exploration and development, and an increase in competition for access from China and India, with help in many cases from their governments. High prices have led to resource nationalism in some countries with reduced access and harsher terms for the access that remains. Exploration has moved offshore, which has moved investment away from land-based risk but left thinly protected offshore platforms exposed to maritime risk. Angola has grown dramatically as a producer and joined OPEC. Nigeria's production has risen, but it has also produced one of the global economy's greatest supply shocks: As of fall 2008 between 500,000 and 800,000 barrels per day of oil have been shut in at times due to violence in the Niger Delta. Equatorial Guinea has become a major oil and methanol producer and is a significant LNG provider to the Atlantic Basin market. Despite conflict and sanctions, Sudan's production has grown since 2001. Chad has grown as well.

These dramatic changes in the global energy market have been associated with the diminution of U.S. influence in the region, and with that loss, an erosion in the ability of the U.S. to promote good governance, conflict resolution, environmental standards and reduced corruption. While U.S. influence has diminished, there is now acceptance in principle by companies and host governments that good governance, respect for human rights and transparency are the cornerstones of political stability, a level playing field for commercial competition and long-term security of investment and energy supply. The World Bank has begun to engage countries systematically on reforming the process of energy production—how acreage is allocated, how products are sold, how refineries are supplied—both to help them preserve value and reduce corruption. The United States which at one time led the promotion of voluntary standards on environmental protection and respect for human rights in security protection, has become in recent years a marginal player in this inter-

[1] GIS calculation based on EIA Prices for Cushing, OK, WTI Spot Prices FOB. (Dollars per Barrel)

national promotion of good governance and transparency in the extractive industries.

On critical energy sector issues, U.S. engagement with the continent has been drastically reduced over the past 8 years. A continental U.S.-Africa Energy Ministers Partnership has languished. Binational commissions and policy dialogues with Angola and Nigeria lapsed. Engagement on the Niger Delta has been episodic and ineffectual. Engagement of China and Europe—the other two largest investors in and consumers of energy in Africa—on the impact of instability and insecurity on global energy markets has been negligible. The U.S. did not contribute to the international Extractive Industry Transparency Initiative (EITI) until forced to do so by a 2007 congressional earmark.

As a result, the risks of instability, which were foreseen in 2001 and foreseeable for new energy producers, have not been adequately addressed. The conflict in the Niger Delta has grown in intensity and lethality. Angola does not engage with the U.S. on governance and transparency. Contact with Algeria, Libya, Chad, and Equatorial Guinea, which was negligible or nonexistent in early 2001, has advanced significantly, but serious engagement on bilateral or energy issues is still very modest for countries which comprise four of the top five suppliers of energy on the African Continent. The potential risk to Africa's growing list of new energy producers of managing potentially enormous revenue flows has not yet been considered. There is at present no policy mechanism structure for the United States to engage Africa's leading or emerging energy producers in a systematic way.

If the U.S. sees stability in Africa as a national security priority for multiple reasons—reduction of conflict, counterterrorism, combating grand crime, eradicating disease, and promoting economic prosperity in Africa and at home—then it must recognize the need for a strategic energy security policy in Africa. The challenge for a new administration is to draw together the many agencies of the U.S. Government that engage on energy-related issues (State, Energy, Commerce, TDA, USAID, Defense, Treasury) behind a coherent, cohesive, and strategic policy and create a central bureaucratic locus of responsibility capable of identifying the connection between mismanaged oil and gas revenues and instability. This policy must identify U.S. energy security interests in Africa, take account of the emerging trends in the region and the role of other actors, consider what policies have and have not worked over the past 8 years and earlier, acknowledge the serious challenges to U.S. interests that loom ahead, and deploy the human and financial resources to meet this challenge.

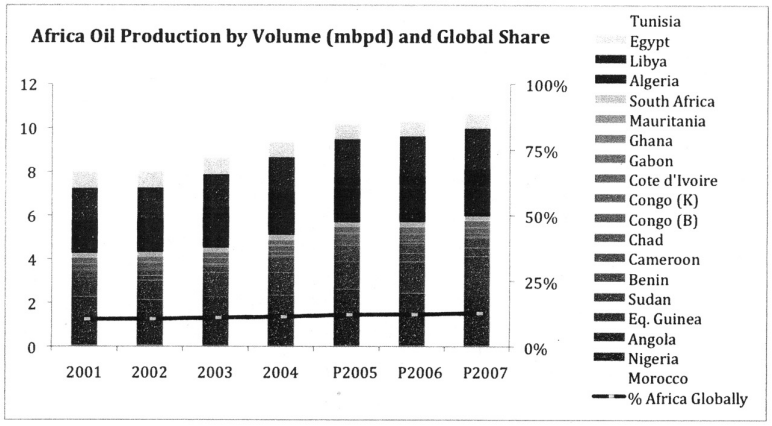
II. Africa's Role in U.S. Energy Security

Africa plays a strategic role in meeting global and U.S. energy security. African producers supply light sweet crude to U.S., European, and Asian markets. Africa's role in energy security has risen dramatically since 2001. Sub-Saharan Africa's share of global oil production has risen from 5 percent in 2001 to 7 percent[2] in 2007, while production in the North Sea and other OECD areas has declined. This growth has come from the dramatic increase in offshore, especially deepwater, oil production. In sub-Saharan Africa today, the key oil producers are Nigeria, Angola, Equatorial Guinea, Gabon and Congo Brazzaville. Sub-Saharan Africa holds 6 percent of global reserves and 3 percent[3] of global gas reserves. By 2020, 95 percent of regional oil production will be offshore, and 85 percent of this production will come from Angola and Nigeria.[4] Of the 12 top producers of oil on the African Continent, four are members of OPEC (Algeria, Angola, Libya, and Nigeria), but all welcome foreign investment.

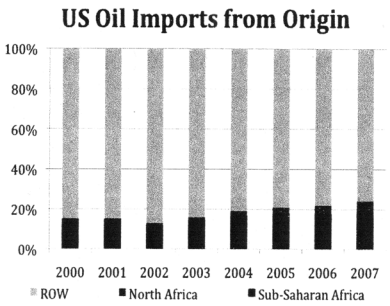
[2] EIA World Production of Crude Oil, NGPL, and Other Liquids and Refinery Processing Gains, Most Recent Annual Estimates 1980–2007, Posted August 22, 2008.

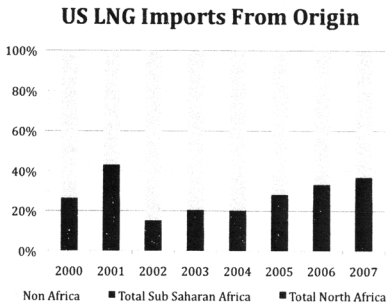
[3] PFC Energy estimation.

[4] PFC Energy estimation.



Africa's share of U.S. imports of oil has risen from 15 percent in 2001 to 24 percent in 2007, providing a key source of diversification of U.S. imports. Nineteen percent of U.S. oil imports from Africa came from sub-Saharan countries. U.S. imports of natural gas from Africa have increased nine fold since 2000, from 13 tcf to 113 tcf. The vast majority of U.S. LNG shipments from Sub-Saharan Africa are from Nigeria, while most imports from North Africa originate from Egypt and Algeria.





III. Emergent Trends on the Continent

The global oil market has undergone dramatic changes in the past 8 years, and the impact in Africa has been significant. The rise in oil prices from an average of $26 per barrel WTI in 2001 to an average of $114 a barrel for the first 7 months of 2008[5] has changed the terms of producing oil. There has been a reduction in the willingness of many global producers to expand production. Governments of producing countries have increased demand for majority control of operations or a larger share of profits and have come to expect higher earnings from resource rents. Escalated prices have also led to a rush of new market entrants competing for access as well as a dramatic increase in the cost of production as demand for steel rigs and skilled workers has risen steeply.

Africa has been impacted positively and negatively by the changes in the market. The amount of investment and profile of investors has expanded, revenue has increased, the number of producers has grown, and the continent's infrastructure for transporting energy has expanded. New international voluntary standards for addressing revenue management, security, and environmental protection have evolved. But there has also been a rise in expectations of the transformation oil wealth should bring that has not been met, a failure to address the security implications of increasingly offshore oil and gas production, and a real challenge for host govern-

[5] EIA Petroleum Navigator, Cushing, OK, WTI Spot Price (FOB) http://tonto.eia.doe.gov/dnav/pet/hist/rwtcm.htm.

ments and competitors in assessing how to view the nonmarket competition of new entrants to the market like China and India.

Rising Investment. In a global market where access is increasingly restricted, Africa is a uniquely open market: Nearly 50 percent of African production came from international companies[6] (UNCTAD 2007 Report/Olsen). Nearly every country in Africa with a coast has licensed some acreage for exploration. While Nigeria and Angola, traditional large producers, have grown, new major players have emerged: Equatorial Guinea, which produced just 168,000 bpd in 2000, is now the third largest producer in sub-Saharan Africa. Exploration has moved from West Africa to East Africa, with new discoveries in Uganda and Tanzania. Exploration is under way in Madagascar, and licensing or exploration is being conducted in Mali, Côte D'Ivoire, Gambia, Guinea, Liberia, Niger, Rwanda, Gambia, and the Puntland region of Somalia.

Investment levels are rising and moving offshore. According to PFC Energy, 95 percent of all regional production will be offshore, with 85 percent of total production coming from Nigeria and Angola. Over the next decade firms may invest as much as $485 billion in regional exploration and production between 2005 and 2030.[7] Forty-five percent of the gross amount of capital expenditures for deepwater oil development worldwide is likely to be spent in West Africa. Gross Deepwater Capex expenditure in West Africa between 2008–2015 will exceed that spent in Latin America, Gulf of Mexico, North Atlantic and Asia-Pacific.

Africa's natural gas sector is positioned to expand in the coming years, particularly through the expansion of liquefied natural gas (LNG) capabilities and facilities. Africa has 211 trillion cubic feet (tcf) of natural gas reserves. Investments in LNG have been made in Algeria, Libya, Egypt, Equatorial Guinea, Angola, and Nigeria. Advancements in LNG will enable the continent to serve as a welcomed alternative supplier of gas to Europe, the U.S., and the Asia-Pacific region; as well as to meet gas flaring reduction objectives. However, proposed projects are expected to face multiple delays due to cost increases; security, social and environmental concerns; feedstock uncertainty; rising domestic demand and negotiations over project terms.

New Investors. As global demand for oil and gas have grown, competition in Africa's energy sector has expanded from U.S. and European firms to new competitors. Africa is no longer the province of major international oil companies; literally hundreds of smaller companies, mostly private, are exploring the new energy frontier nations and taking over mature properties.

The Asian Presence. The presence of Asian. investors and energy companies on the continent has risen dramatically, in tandem with rapidly growing demand for oil and gas in developing Asia. The major Chinese national oil companies (CNOOC, CNPC and Sinopec), Malaysia's Petronas, and India's ONGC have all purchased equity shares and bid for new licenses in Africa. On an economic level, fear of Asia's domination of the African energy sector is highly premature. The real concern over the rise of Asian NOCs therefore stems from anxiety over a number of their business practices that negatively impact competition and the long-term stability of producing countries. So far, Asian NOCs have placed commercial concerns over humanitarian concerns and have failed to incorporate into the norms of their overseas operation the long-term risks of disregarding governance, environmental and human rights concerns. These investments have enabled Sudan to grow its production, enjoy substantial oil revenues, and withstand robust international pressure to end the genocide in Darfur and fulfill its obligations under the North-South peace accords. Western companies are growing distressed at the way Chinese NOCs compete. Their ability to draw on nonmarket tools such as government funds to finance acquisitions, and to offer package deals involving construction of roads, soccer stadiums, or railways as a sweetener make competition for acreage unfair from a Western point of view. (From an African point of view, these projects address their own lack of administrative capacity.) When companies are able to acquire acreage without a tender that meets international standards, the nascent trend toward enforcing these standards in countries like Nigeria and Congo Brazzaville is undermined.

No Asian NOC yet participates in any of the voluntary standards created by Western governments to foster improved governance, consideration of environmental impacts, and respect for human rights in oil and gas investments. Moreover, the ability of other nations, such as Angola, to decline to participate in those standards and maintain opaque financial practices is reinforced. From the perspective of U.S. interests, the need for these standards is fundamental to the long-term security of these nations, and also to energy security. These concerns should be of much interest to China as they are to the U.S.

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[6] UNCTAD 2007 Report/Olsen.

[7] IEA World Energy Outlook 2006, p. 77.

Emergent Risks. With the prospects of enormous investment, production, and revenue come major risks. In oil resource rich countries in Africa, the emerging and largely unaddressed risks originate from: Unattainable expectations, rent seeking, corruption, the erosion of nascent good governance efforts, the lack of capacity to manage such large revenues effectively, security threats to operations, rising resource nationalism and political instability.

With the promise of high oil and gas revenues comes rising expectations of poverty reduction and prosperity. In frontier countries these expectations are almost always unfulfilled, as 8 years or more can elapse between the first exploration agreement and a profit return to the overnment when hydrocarbon production commences. In cases like Sao Tome and Principe, where prospects for production attracted enormous press attention, one major coup attempt, and robust program of bilateral advice on revenue management; actual exploration produced disappointing results. The recurrent issues of whether the field will deliver and whether the government will put revenue management measures in place before the revenue comes in will evitably surface in Ghana and as well as other frontier states unless these issues are properly addressed.

For established players like Nigeria and Angola, Equatorial Guinea, Gabon and Congo Brazzaville, the question is whether the flood of revenues will be put to good use, or whether rent-seeking by members of the government will foster corruption and kill even nascent efforts to prove governance. In Nigeria, trends are rapidly on the downslide. Even in the waning days of the reformist Obasanjo administration, which introduced landmark reforms in revenue transparency, procurement, and civil service reform, questionable licensing rounds were offered here technically unqualified bidders won access to acreage. Blatant defects in sector management, from the failure to meter oil to the failure to measure the match between refinery inputs and outputs, were left unaddressed. The Yar'adua government did not constitute the NEITI Board, as required by the country's NEITI law, until January 2008 and it has already failed to comply with the legal requirements to audit 2006 and 2007 extractive industry revenues. The country is in a deep political crisis and the prospects for implementing procurement, transparency, or energy sector reforms are negligible. The Niger Delta crisis has become an international crisis, and efforts within Nigeria to even strategize a solution are nearly paralyzed.

Equatorial Guinea is making nascent efforts to constitute an EITI program and to obtain outside help for identifying social investment projects. It has also been cooperating with the IMF and publishing results of its annual IMF article IV reports. Time will tell whether Equatorial Guinea will move from candidate to compliant status under EITI, whether social investment projects will be implemented, and if efforts to foster a civil society in Equatorial Guinea capable of participating in governance efforts will evolve. U.S. industry, NGOs, and the World Bank are all engaged.

Angola is a mixed case. While Angola does not participate in voluntary initiatives, driven by its motivation to soon access international capital markets, Sonangol publishes its production with regularity. The Angolan Finance Ministry has accepted a program with the IMF to monitor and manage oil revenues, and Angola's tender system is viewed as transparent and fair. But the Angolan model raises concerns for future caution. As Angola grows its own private sector with companies who will create value in Angola by providing oil sector services and other related enterprises, there are reports that the companies themselves are owned by current members of the Angolan Government or Sonangol, raising concerns for U.S. companies under the Foreign Corrupt Practices Act.

Security risks are on the rise as well. The most acute and obvious is Nigeria. The continued failure of Nigerian governments to effectively address the Niger Delta crisis has led to an unprecedented level of lethality and disruption. Attacks on offshore facilities, thought to be beyond the range of the Niger Delta militants, took place in June 2008. Kidnappings and murder continue. Cameroon and Equatorial Guinea both suffered bank heists liked to Niger Delta crime organizations and EG faced at least three coup attempts in 5 years, including one major foiled attempt led by Simon Mann and Mark Thatcher. While investment is moving offshore, none of the littoral states have effective navies or coast guards with which they can even identify, much less deter or repel pirates or attackers.

Rising resource nationalism also raises risks that investment levels will be below expectations and revenues will fall as a result. While the nation's motives are understandable, they can produce unwelcome results. In Nigeria attempts to define local content by who owns a local service company, rather than how much value is created locally, have simply led to shell companies of mysterious ownership who transfer their service obligations to other companies or simply do not perform the work.

The broader risk is the instability that the confluence of the above factors can produce. Unprecedented oil and gas revenues across the continent have not yet produced the investments in physical capital—roads, power stations, schools and hospitals—or human capital—primary and secondary education, vocational training, enterprise management, and development of civil society—that will be required for social peace. Some countries, like Libya, Equatorial Guinea, and Ghana, are at the beginning of major investment programs. Their progress will be measured soon. But more mature producers, like Nigeria, Algeria, Angola, Congo, Gabon and Chad, face impatient populations with expectations of better results. This opens the door to external adventurism, as we now see with al-Qaeda in the Maghreb in Algeria, and internal conflict as we have seen in Chad, Mauritania, and Nigeria.

IV. Challenges for a New Administration

A new administration will face several challenges in the Africa energy space: The crisis of corruption in Nigeria, diminished U.S. influence on the development path of current and emerging producing countries, the need to secure offshore investments and the competition over investment values and standards.

Nigeria. The most critical challenge to U.S. policy will be how to engage Nigeria. Nigeria's size, its role as an energy producer of global stature, its cultural ties and its potential to be the economic engine of West Africa should put it at the top tier of U.S. foreign policy priorities. Multiple issues must be addressed. The Niger Delta conflict poses physical risk to U.S. and Nigerian citizens in the Delta. The militants are well armed and are reportedly exporting weapons and crime to neighboring countries including Côte D'Ivoire, Cameroon, and Equatorial Guinea. If Nigeria's shut-in oil production were restored, it could add up to 650,000 barrels per day of oil to the global market, dropping prices nearly $17 on its own. Nigeria could be a major source of LNG supply to Europe, Asia, and the U.S. But unaddressed, the Niger Delta conflict will lead to sustained shut-in of onshore production. The deep corruption in Nigeria overall must be addressed as well. Investment will fall in Nigeria as it appears that every aspect of the energy procurement process, from the leasing of acreage, to local content mandates, to the sale of crude for product risks engagement with Nigerian Government officials.

Declining U.S. Influence. If the U.S. is to influence the development path of current producers like Angola, Chad, Nigeria, Equatorial Guinea, and emerging producers such as Ghana and Madagascar, we must have a respected voice in those countries. The U.S. has left the field in many of these countries entirely, and in countries where we do engage, we do not engage them on their own economic agenda. We will not be heard on the issues of investing resource revenues in physical and human capital or avoiding the management of overinflating economies if we do not have relationships of respect with the countries we wish to influence. U.S. advocacy for access to acreage, conducted at the head-of-state level by most U.S. competitors but rarely a priority for U.S. administrations, is best affected not by a demand for access, but by a relationship of mutuality between the U.S. and the host country. Traditionally, the U.S. and international institutions have effectively used their financial clout as leverage to compel developing countries to implement policies aimed at sustainability and stability. But new centers of wealth in Asia and the Middle East combined with unprecedented windfall profits in producing countries have diminished the influence of loans and foreign aid. The U.S. will need a more nuanced approach to engagement since resource rich countries now have ample funding on their own or through unconditional loans from China.

Security of the Offshore. If 95 percent of all energy production in West Africa will be offshore by 2010, there will be a need both for the U.S. to monitor international waters, and for countries to have the wherewithal to see who is in their water, interdict pirates and criminals, and deter attacks on facilities to protect the lives of workers. An investment both of time and revenues will be required to attract those countries that will create security forces with respect for human rights.

The Competition for Values. The U.S. will compete with China, and possibly Russia, for influence in Africa. U.S. companies will come with a package of values attached to their operations: Compliance with anticorruption laws, participation in voluntary standards on human rights security and transparency, and investment in health, safety, and environmental practice. Their competition may not have these values or these conditions attached to their investment. Indeed, the great challenge that China poses to U.S. and European investment in Africa is not domination of acreage (their share remains minimal) but the refusal so far to participate in international standards, which erodes the incorporation of these standards into host country practice. Russia has now made its bid for access to Nigeria's gas to further increase its dominance of Europe's gas supply. Protection of these values will require engaging China, Malaysia, Russia, and others on both the need for these

standards and their contribution to global energy security. The U.S. will need to also engage Africa on these issues and make it clear that it is a priority of the U.S. Government to advocate these values and, where it is welcome, to provide assistance to countries adopting and implementing these standards.

V. Recommendations

Our preliminary recommendations for addressing these challenges are:

1. *Promulgate a Policy Decision Directive on African energy security.* There must be a policy directive from the President that explicates U.S. interests and priorities and directs agencies to coordinate and support it. This policy must include the role of diplomacy, security assistance, governance and transparency promotion, human rights, and development assistance.

2. *Provide White House leadership.* The coordination of energy security policy must come from the White House to muster the disparate agencies behind a policy. While this person might usefully coordinate energy security policy in other regions as well, there must be a person with the rank, status, and mission to ensure the implementation of the President's policy. In addition, most African energy producers either manage or reform energy policy at the head-of-state level. There must be a counterpart level of engagement from the U.S.

3. *Apply State Department diplomatic resources to energy security.* The State Department must play a key role in engaging countries both on access and reform. While major companies do not always request advocacy from the U.S. Government, in today's market, heads of state of their competitors advocate vigorously. Small and mid-size U.S. companies would welcome a restoration of the U.S. Government's role as commercial advocate where appropriate. Engagement on reform must be at high levels and with multiple ministries. U.S. diplomatic resources must be applied at both a senior level, to engage other ministers, and at the bureau level, to provide programmatic support. The U.S. needs more diplomats on the ground in developing countries, more eyes and ears in the producing regions, and more high-level diplomats focused on energy issues. Historically the State Department denotes this priority by appointment of a special ambassador, as it has for the Caspian region, or by directing an Under Secretary (in this case the Under Secretary of State for Economic Affairs) to place a priority on promotion of a policy. This kind of issue is better addressed by recruitment of officials who have the mission to promote the policy than by changes in the State Department's organizational structure, but with respect to energy security policy one of these options should be considered. In addition, the Department needs to collect more data on energy developments, as well as political developments, in producing areas.

4. *Give governance and transparency policy a bureaucratic home.* At this time there is no office with dedicated responsibility for the promotion of good governance and transparency in energy producing countries. The Democracy and Human Rights bureau owns some policies, such as the voluntary principles on energy and security. The Economics and Business Bureau has at times staffed the EITI at a junior level, but so has the Policy Planning Office. In the sprit of integrating economic and governance issues rather than stovepiping them, we should place this responsibility in the Economics and Business Bureau.

5. *Engage Africa on its own energy and economic agenda, not just ours.* The best way to enhance U.S. influence with Africa's energy producers, and to promote U.S. interests in both access and governance, is to engage governments on what interests them, not just what interests us. Most producers want to create jobs, promote economic development and enjoy a respectful, mutual relationship with the U.S. Nearly every country is trying to find ways to increase power generation and distribution in an affordable, sustainable way. Many of them struggle with ways to target subsidies for fuel or power for the poor rather than the entire economy. The U.S. could use a range of tools to engage different countries, depending on our interests and their needs. These could include reviving the U.S. Africa Energy Ministers Partnership; reviving or creating bilateral multiagency economic working groups with Nigeria, Angola, Algeria, and Libya; and creating an electric power policy partnership—"Power for the People"—to engage countries on power pooling and smart policies. The prudent use of development aid to provide technical assistance to those who seek help in redesigning their procurement systems, or auditing their national and international oil companies, or designing systems for metering production, should be helped.

6. *Focus development and technical assistance on governance.* U.S. investment in governance in general and energy governance in particular is modest. USAID, in coordination with the World Bank and other development agencies, should be directed, with a $500 million fund to back its commitments, to support EITI in countries which are candidates, to consider assistance to countries interested in reforming the

governance of their energy sector from procurement to local content to regulation, and to support civil society groups in general, in a way that helps these groups and their media understand the extractive industries and participate in indigenous reform efforts.

7. *Sustain efforts to promote maritime security.* Led by NAVEUR, one of the most successful efforts of the Bush administration has been the engagement of African nations on enhancing their own capacity to identify ships in their waters and police them to protect their fisheries, deter crime, and protect investment in their waters. This engagement has been tempered by a requirement that countries be willing to engage on NAVEUR's terms, which call for improvement of policy, not unconditioned security assistance. With the advent of Africom, this effort can be the key to securing energy investment abroad. If Nigeria reaches a point where it will seriously engage on this issue, it could lead to the containment of oil bunkering as well.

8. *Procure a National Intelligence Estimate on African Energy Security.* U.S. policymakers rarely see the linkages between energy production, instability, conflict and stability of supply. An NIE of African energy would identify these linkages and provide a common understanding of the potential for conflict that rising prices (or sharply falling prices) and new exploration might pose for the continent.

9. *Engage Europe and Asia on Africa issues.* Europe and Asia have as great a stake in African development, stability, and energy security as the U.S. does. We need to revive conversations on these issues in general through a transatlantic dialogue and high level U.S.-China and Asia-Pacific cooperation.

10. *Engage on the Niger Delta.* The U.S., EU, and China must engage Nigeria on the crisis in the Delta. The key to the crisis is the lack of political legitimacy of the leadership in Nigeria itself. But as friends and partners the U.S. must make clear that the conflict has become an internal as well as an international crisis. Crime is spreading. Nigeria's democracy is under attack. Money is not the core of the problem, as there are ample funds at the federal and state level for a development plan. But without a serious political dialogue, perhaps supported quietly by external partners, no progress will be made. No serious political progress is possible unless corruption is addressed. To date, Nigeria has taken greater steps on transparency and reform than any other African nation. But if it does not fulfill its nascent commitments, efforts to get smaller countries to adhere to stricter standards are destined to fail.

VI. Conclusion

Mr. Chairman, as you can see from this lengthy analysis, there is much to be done regarding U.S. energy policy toward producing states in Africa and to address the problem of the resource curse. It will require new approaches to energy and foreign policy. It will require fresh policy approaches, money, and creative diplomacy. But more than anything it will require leadership. As a citizen, I thank the committee for its leadership on this critical issue.

Senator FEINGOLD. Mr. Goldwyn, thank you for your excellent testimony.

Before I turn to Professor Collier, I try to be careful not to repeat old war stories from foreign trips, but when I was in President Dos Santos' office in 1994, I talked to him about his rating on the Transparency International index, which of course was abysmal. He listened and I thought that would be the end of that. I came back 5 years later. He brought up to me—somehow they had done the job and kept the notes—that they had gone up 6 points. It's still pretty bad. But think about the power, that that's the one thing he wanted to impress upon me, whether people believe that these indexes really work and so on. I was really struck that EITI presents a very dramatic opportunity to engage countries in trying to get their reputation to improve. So I thank you for that.

Professor, it's a delight to have you here. You may proceed.

STATEMENT OF PAUL COLLIER, DIRECTOR, CENTER FOR THE STUDY OF AFRICAN ECONOMIES, UNVERSITY OF OXFORD, OXFORD, UNITED KINGDOM

Mr. COLLIER. Thank you very much for inviting me.

To state the obvious, the present commodity boom is the biggest opportunity for transformative development that parts of Africa have ever had. There are also big potential risks. Just to elaborate on those two points, the global evidence on the link between sort of commodity revenues and economic development is that the normal pattern is in the first few years of higher commodity prices countries grow faster. They grow faster whether they're well governed or badly governed. They grow faster. You can't help but grow.

But if you come back in 20 years, usually what's gone up has come back down. Not always. It seems to depend statistically upon the initial levels of governance. Governance really seems to matter.

The old concerns of Dutch disease, which were very much macrotechnocratic, we now as economists tend to think it's more of a political story. It's not an inevitable process, as Dutch disease. It's an optional process depending on governance.

When we focus not on economic development, but on conflict, we get a similar pattern. Higher commodity prices do seem to increase the risk of violent conflict, unless there's good governance. If there's good enough governance, you don't get that effect.

It's vital that history does not repeat itself. The commodity booms of the 1970s led to little in the way of sustained development and quite a bit extra conflict. So we must do what we can to avoid history repeating itself.

What we can do is quite limited because we don't have anything like hard power in these situations. So conditionality won't work, precisely because these governments have lots of money. So the only approach I think is to see what the international community can do to strengthen the capacity of the societies within these countries to get what they themselves want. It's their money ultimately.

The approach that I think is entirely the right approach is voluntary international standards, which then guide societies into what provides information for them and guidance on what matters. EITI was exactly the right place to start: Get the basic information to the society on what money is coming in. Without that, what can society do? So EITI was the right place to start.

The success of the EITI—and it has been remarkably successful—demonstrates that that approach works, but it will be the wrong place to stop. That's why we've got EITI Plus Plus. What are the "plus plusses"? Well, what is governance here? I said governance matters and the natural tendency is to think that what governance means is corruption. In part that's right, but there's much more to good economic governance than avoiding corruption. You've actually got to take sensible economic decisions as well as honest ones.

In harnessing the commodity boom for sustained development, there are a lot of difficult economic decisions. There are upstream issues, there are downstream issues.

I'll just close with one upstream and one downstream. Upstream, how do you sell the rights to the discovery process and the extrac-

tion process? My own belief is that we need to use auctions much more than we have done in the past. Auctions address two problems. One is the problem of agency, which is a corruption problem.

But the other is they address the problem of information. Governments are pretty clueless on what these things are worth. Companies have an informational advantage. The attraction of auctions is the government doesn't need to know. The true value is revealed by bidding amongst informed competitors. So the auction solves the asymmetric information problem.

If we go downstream, the key decisions are how much of the revenues should be saved relative to consumed—the answer is a lot should be saved, but by no means all of it. So neither the Norwegian model, which is far too high a savings rate for low-income countries, nor to throw a consumption party are the right answer.

Finally, of the savings, what should you do with those savings? Definitely not the Norwegian model—give them to your wise New York banks—and that is not a comment on the wisdom of the banks. It's that the African governments—unlike African countries, unlike Norway, are desperately short of capital in their own societies. So they need a process of domestic investment. The key issue in harnessing these booms is to get a good domestic investment process going. It's very easy for that domestic investment process to be both corrupt and foolish. So raising the quality of domestic investment is the heartland of the issue.

Thank you very much.

PREPARED STATEMENT OF PAUL COLLIER, DIRECTOR, CENTER FOR THE STUDY OF AFRICAN ECONOMIES, UNIVERSITY OF OXFORD, OXFORD, UNITED KINGDOM

LAWS AND CODES FOR THE "RESOURCE CURSE"

1. INTRODUCTION

The international community assigns a high priority to helping impoverished societies, yet its efforts are currently lopsided. While it spends around $100bn on aid and provides over 100,000 U.N. peacekeepers, to date it has largely neglected the potential of international codes and laws to raise standards of economic governance. This paper analyzes the potential contribution of such codes and laws to increase the development impact of natural resource revenues. The current commodity booms make this a critical opportunity for assistance.

Resource-exporting developing countries are currently in the thraws of booms that were last seen in the 1970s. Many of these countries have been impoverished and economically stagnant for decades and the booms constitute extraordinary opportunities for development. The revenues are often large enough to finance transformation, dwarfing aid flows. However, the last global commodity boom of the 1970s largely failed to deliver transformational development. On the contrary, on the whole its long-term economic consequences were highly adverse. The failure to harness the booms of the 1970s was the result of wrong decisions on the part of governments. In part, these wrong decisions were mistakes: The decision-takers would have arrived at different decisions had they realized their consequences. In part, however, they reflected divergences between the interests of the society and of the decision-taker: The incentives facing the decision-taker were misaligned with the social interest that the decision-taker was empowered to represent. This distinction between mistakes and misaligned incentives is fundamental as a guide to the actions that can prevent history repeating itself. Mistakes are to an extent self-correcting through learning, whereas misaligned incentives require changed incentives.

Even where past decisions were mistakes, international codes can be helpful. The typical low-income commodity exporter has remained prone to mistakes in economic policy because the cadre of well-trained decision-takers within the society is still tiny. Adult populations are small, few people get international graduate education, and few of these people return to their country: Globalization is accelerating the emigration of the highly skilled. Even among this limited pool, few are in positions

of influence: The salaries of senior civil servants have been radically eroded. Further, because the adverse consequences of mistakes in managing commodity booms occur only long after the decisions, it is easy for a society to misdiagnose its problems. The typical mistake of the 1970s booms was to gear them up by borrowing and consume the proceeds. When commodity prices crashed this led to a phase of crisis management termed "structural adjustment." Nigerians, for example, generally see the boom period as the "good times," and blame their current poverty on "structural adjustment." Thus, the process of learning from mistakes can usefully be complemented by external guidance. International codes can be helpful: They get noticed, and their official status signals that they have been subject to a reasonably rigorous process of scrutiny and assessment and so should be taken seriously. Even where such codes are entirely voluntary, they can change behaviour.

Where wrong decisions were the result of misaligned incentives rather than mistakes, the incentives have to be changed. While in principle, incentives can be changed both by penalties and rewards, in the case of decisions appertaining to resource revenues the key changes are likely to come from new penalties. This is because the private rewards for socially costly decisions are usually too high to be countered by even higher rewards for good decisions. The terrain of penalties opens up a role for the law. Legal process is not the only means by which penalties can be introduced, but it is likely to be a critical part of solutions.

In section 2, I review the evidence on the resource curse and its causes, including a prognosis for the long-term consequences of the present commodity booms should patterns of behaviour stay unchanged. The key conclusion from this section is that were behaviour patterns to stay unaltered the present booms would be a missed opportunity of quite staggering proportions. The issue under discussion is undoubtedly the single most important issue for the development of the countries now stuck at the bottom of the global economy: The "bottom billion." In section 3, I anatomize the decision process by which valuable natural resources in the territory of the society are harnessed for economic growth that benefits the society. I delineate five key decisions. For each I consider whether past failures were predominantly due to mistakes or to misaligned incentives. In section 4, I turn to the scope for new international voluntary codes. Primarily, these address those errors due to mistakes although they can also help to realign incentives. In section 5, I turn to the potential need for new laws the national promulgation of which would be coordinated across the OECD analogous to antibribery legislation. Such laws are difficult to introduce and so are a last-resort approach for the realignment of incentives. Section 6 concludes.

2. THE RESOURCE CURSE AND ITS CAUSES: THE EVIDENCE

The "resource curse" is evident from particular situations, such as Nigeria since the discovery of oil, but as a general proposition about those countries that export primary commodities it has been more controversial (Auty, 2001). Counter examples to Nigeria, such as the rapid growth of Botswana since the discovery of diamonds, demonstrate that any resource curse must be contingent. Further, there was an apparent discrepancy between two different types of general (that is, statistical) evidence. The main general evidence came from a study by Sachs and Warner (2001) which showed that using cross-section comparisons resource riches were damaging. Cross-sections essentially compare the overall experience of one country with another. Economists have, however, come to doubt such evidence where it is used to investigate processes that occur over time, because it is easy to misattribute to temporal processes what are in reality underlying differences between countries. Evidently, the resource curse is such a process: Resources are discovered and this produces various changes which eventually damage the economy. These ubiquitous suspicions of cross-section analysis appeared to be confirmed in the case of the resource curse by time series analyses by Deaton and Miller (1995) and Raddatz (2007). Time series analysis relies upon before-and-after situations in each country and so is better suited to temporal processes such as the resource curse. They found that the consequences of a commodity boom looked on average to be entirely benign on various economic criteria. However, an acknowledged limitation of their method was that it could only investigate the first few years following a boom. My own recent work with Benedikt Goderis has reconciled this apparently conflicting evidence (Collier and Goderis, 2007a, 2007b). Using the statistical technique of cointegration we are able to analyze both the short-term and the long-term effects of commodity booms using data for virtually every country in the world, and spanning the period 1970–2003. Our results confirm that in the first few years price booms benefit the overall economy. However, after around 20 years the effects are often highly adverse. Simulating the current commodity booms in the 14 major African commodity

exporters, we find that the long-term effect is to reduce output relative to counterfactual by around 25 percent. The resource curse is a reality.

The adverse long-term effects are confined to price booms in nonagricultural commodities. A likely explanation for this is that agricultural booms accrue predominantly to farmers who usually use their windfalls sensibly. In contrast, nonagricultural booms usually accrue predominantly as government revenue. The current commodity booms are nonagricultural and we investigate whether such booms inevitably lead to the resource curse or are themselves contingent. We find that they are contingent upon initial conditions of governance: Above a threshold level there is no resource curse. Thus, for example, Norway has been able to benefit from its oil not only in the short term but has harnessed the revenues for long-term growth. Our measure of governance is taken from the International Country Risk Guide, a commercial rating agency. On this measure, the threshold level below which the resource curse sets in is approximately equivalent to the governance standards of Portugal in the mid-1980s. Unfortunately, almost all of the current commodity booms in low-income countries are occurring in environments where governance is below this threshold. This emphasis upon the importance of governance in the management of resource rents is consistent with a recent analytic literature which models the political economy of the resource curse (Arezki and van der Ploeg, 2007; Baland and Francois, 2000; Hodler, 2006; Mehlum, Moene and Torvik, 2006; Robinson, Torvik and Verdier, 2006).

Governance is, however, multifaceted and in one important respect it has manifestly improved in the resource-exporting countries since the 1970s. Following the collapse of the Soviet Union there was a waive of democratization and so they are now more democratic. With Anke Hoeffler I have investigated whether democracy improves the economic performance of resource exporters (Collier and Hoeffler, 2006). We find that whereas in other economies democracy has such an effect, in the resource exporters' performance is significantly worse. In effect, instead of democracy disciplining the decision process, the resource revenues undermine the democratic process. We decompose democracy into two facets: Electoral competition and checks and balances. The economic damage done by democracy comes from electoral competition and is offset if checks and balances are sufficiently strong. The instant democracies of the 1990s have electoral competition without checks and balances because the latter are much more difficult to establish. As Iraq and Afghanistan demonstrate, elections can be introduced rapidly in any society because they are events and the incentives for parties to participate are strong. In contrast, effective checks and balances are processes, and since their purpose is to limit power the powerful have little incentive to build them. An implication is that the waive of democratization has not improved governance to the level at which the incentives of decision-takers are now well-aligned. Other approaches to the improvement of governance in the low-income resource exporters is thus likely to be critical to whether history repeats itself.

3. MISTAKES AND MISALIGNED INCENTIVES: FIVE KEY DECISION POINTS

The dismal outcome of commodity booms to date reflects either mistakes or misaligned incentives and in principle either of these could predominate in the poorly governed countries. To analyze these two possibilities I focus on five decisions that are jointly critical in harnessing a commodity boom for broader growth across the economy.

Decision 1: Negotiating the resource extraction contract

In developing countries resource extraction rights are invariably vested in the government. Because governments lack the organization, skills, and capital to undertake extraction themselves, it is appropriate to sell these rights to resource extraction companies. The first critical decision is how these sales should be conducted.

The government has one major advantage: It is usually the monopoly seller of the nation's resources. The exception is where rebel organizations control some of the national territory and in effect compete with the government in selling rights. For example, this was for many years the situation in respect of Angolan diamonds. When Jonas Savimbi, the head of the Angolan rebel organization, was killed, an event which marked the end of divided control of the nation's resources, the stock price of resource extraction companies doing business in Angola fell on the New York market by 4 percent. Asset holders recognized that the move to monopoly would worsen the bargaining position of companies and that this would more than offset any material benefits of peace.

However, the government has two major disadvantages: It has less information that a resource extraction company as to the likely value of extraction rights, and

it has a more severe "agency" problem. The former generates mistakes, whereas the latter generates misaligned incentives. As a first step in reducing the information asymmetry the government can invest in a geological survey, so that the uncertainty over the value of the rights is reduced. Where good geological information is available, the next and key step is through an auction. An auction reveals value through competition among informed companies: The government itself does not need to know the value of the asset it is auctioning. The most celebrated instance of the benefits of auctioning rights is the sale of the rights to the third generation mobile phone network in the U.K. The British Treasury was about to sell the rights in a negotiated deal for £2bn when it was persuaded to rely upon an auction instead. The auction revealed a price of £20bn. If the British Treasury can so radically misestimate value, it is evident that the typical African Ministry of Finance does not have the core competence to negotiate satisfactory deals. The amount of information revealed by an auction depends both upon the details of its design and the integrity with which it is conducted. For a discussion of a design appropriate for a resource auction see Cramton (2006). The integrity issue is taken up below.

The agency problem facing governments is that the power to determine deals is delegated to some agent of government, typically the Minister of Industry or the President. Resource extraction companies thereby have the opportunity to arrive at a deal which is personally rewarding for the agent of government, and for the company, at the expense of the society. Again, auctions are potentially the solution to this agency problem. However, auctions can easily be gamed. To prevent this, auctions would need to meet certain specified standards, and adherence to these standards would in turn need to be monitored through a process of international certification.

Currently, many African governments are entering into packaged deals, usually with China, that combine resource extraction rights with construction contracts. Such packaging has some organizational advantages. It is, however, entirely compatible with an auction process: The auction can specify that the government wants the package. Resource extraction companies would then team up with construction companies and potentially also with their national aid agencies to submit a joint bid. An advantage is that bids would then be comparable.

Decision 2: Design features of the contract

The second critical decision concerns the specification of the rights that the government proposes to sell. Extraction rights have three key dimensions, their duration, the tax regime that will be applied, and the credibility of these commitments. The third of these dimensions is the core of the matter.

Because the government is sovereign it can change the terms of any deal that it strikes. This gives rise to a "time-consistency" problem: The inability of the government to commit induces extraction companies to discount its offer. The problem is far more acute for governments that start with a weak reputation as is normal across Africa. In this case, if the government reneges it suffers only a small loss of reputation. The problem is particularly severe where no geological survey is available or planned, so that prospecting rights are inevitably highly speculative. The government cannot credibly commit to refrain from changing the terms of the deal should the company strike lucky.

The approach usually urged by the international financial agencies in such situations has been to encourage governments nevertheless to offer long-term contracts, and then, should companies strike lucky, to advise governments not to renege on their terms. The intention is that governments should gradually build their reputations to the point at which their commitments would be credible. Such advice seems to me to be seriously mistaken in two respects.

First, governments with poor reputations that offer long-term contracts for highly speculative outcomes will receive only offers that include a heavy discount for the likelihood that they will renege. In effect, the company works on the assumption that the contract will be changed. If, subsequently, the government fails to change the contract it hands the company a windfall over-and-above the expected return. Conversely, if the government indeed reneges on the contract, it incurs a loss of reputation which would not have occurred had it not made the commitment. The alternative is for the government to offer for sale only rights that extent over a limited time horizon. It can further reduce the need to renege on a contract by designing its tax system so as to be heavily geared upon the level of rents. Thus, flat rate royalties should be avoided. Taxation should start only above some threshold world price at which the firm is making normal profits and rise steeply as the price increases above that threshold. Both features reduce the incentive for the government to renege on the contract should the company strike lucky. They thereby increase

the confidence of the company that the terms of the contract will be respected and so reduce the discount that is built into its offer.

However, the key reason why the advice is mistaken is that the incentives for governments already tempt them to offer contracts with horizons that are too long and tax regimes that are too generous. By designing contracts in this way governments increase current revenues at the expense of revenues in the future when the current group of ministers may not be in power. This misalignment of incentives is at its most acute in transitional governments which are common in post-conflict situations. For example, the transitional government of the Democratic Republic of the Congo knew that many of its members would be out of government after the post-conflict elections, scheduled for 2006. In the preceding 3 years long-term rights to mineral extraction were sold off under a very generous tax regime. For example, during 2006 mineral exports are estimated to have been around $200m whereas royalty payments received into the government budget were a mere $86,000. The prices at which these rights were sold were inevitably heavily discounted by the lack of credibility of the regime's commitments. Similarly, while it was still a rebel organization, the current government of Congo Brazzaville is believed to have sold ELF the long-term right to oil at a heavily discounted price in return for financial support in its subsequently successful military struggle. Analytically, these sales of extraction rights were equivalent to incurring international debt at very high interest rates, something that would not have been permitted by the international community.

The appropriate specification of the rights to be sold thus depends upon political as well as geological considerations. While a mine might have a natural life of 30 years it will often be economically disadvantageous for the society to sell extraction rights over such a long horizon. It may be preferable to incur the extra transaction costs implied by rights that are shorter than the natural life of the investment.

Decision 3: Transparency in revenues

The third critical decision is the degree of scrutiny of revenues. Until the Extractive Industry Transparency Initiative (EITI) which started in 2002, revenues paid to governments by resource extraction companies were usually confidential. This lack of disclosure gave rise to two abuses: One by companies; the other by government officials. Most revenue-receiving governments have little capacity to scrutinize whether payments by companies are fully compliant with tax regimes. However, once payments are made public companies are potentially exposed to a greater degree of scrutiny and are more likely to be voluntarily compliant. The abuse by government officials is that payments that should properly accrue to the budget instead are improperly diverted. Indeed, the key impetus for the EITI was the evidence from the IMF that some $2bn of oil revenues that should have accrued to the Angolan budget were missing. The scrutiny of government by citizens depends upon information. This is exemplified by the decision of the Nigerian Federal Government to implement the EITI at the level of the 36 states within the federation which between them receive half of the oil revenue. The Federal Ministry of Finance decided to publish in the newspapers the monthly oil revenues sent to states and handled by state governors. On the day of first publication, newspaper circulation in Nigeria spiked: Citizens wanted to hold their officials to account. The benefits of the EITI already extend beyond Africa: It has substantially improved the management of resource revenues in Russia and central Asia. [Here I rely upon the opinion of Eric Bergof, Chief Economist of the European Bank for Reconstruction and Development.]

An even more fundamental abuse of resource revenues is when they do not accrue to the government in any form but are instead paid to rebels who control part of the national territory. This was, for example, the case for many years with diamonds sold by Savimbi's rebel organization UNITA. The international community faced up to this problem at around the same time as EITI through a voluntary system of certification of the provenance of diamonds, the Kimberley Process. This has already proved highly successful in curtailing rebel access to the world diamonds market and the effectiveness of scrutiny is steadily being increased. The system is also being considered for a few other high-value commodities such as coltan.

The opacity of resource revenues and their theft by rebel groups are not mistakes. Evidently, they are the result of misaligned incentives: Opacity and theft benefit those who misappropriate resource revenues.

Decision 4: The aggregate savings decision

By far the most important decision point concerns the proportion of resource revenues that should be saved. There are two distinct timeframes that need to be taken into account in reaching this decision, one long term, and the other medium term.

The long-term timeframe concerns depletion. The extraction of nonagricultural natural resources depletes the stock of the asset. To maintain the overall value of assets some of the resource depletion should be offset by an accumulation of other assets. The proportion that should be saved depends upon the likely length of life of the resource and upon the likely rate of return on investment relative to the rate of return earned by leaving the resources in the ground, but in general a significant proportion of revenues from resource extraction will need to be saved in order to avoid overall depletion of assets.

The medium-term timeframe concerns the price cycle of the commodity. The world prices of commodities have a long record of substantial fluctuation. While there is nothing so predictable as a genuine "cycle," manifestly there are periods when prices are sufficiently out of line with their long-term average level that it is reasonable to expect a degree of reversion towards the long-term mean. There are good reasons why a government might try to smooth its expenditures rather than simply let expenditure track these extreme fluctuations in revenue. Volatility in expenditures gives rise to inefficiencies: For example, during periods of high expenditure commitments are made to rather low-return items which then can only be financed during periods of low expenditure by deep cuts in items which should have been prioritized.

Offsetting depletion and smoothing the price cycle both require the government to save part of the revenue from resource extraction. This decision to save is subject to further "time-consistency" problem. Consider the decision of a prudent finance minister whether to save revenue. The saving necessarily defers the spending decision to the future, a time when the minister responsible is likely to be different. If this future finance minister is also prudent then no issue arises. However, if the future finance minister is "populist" then the revenues saved by the prudent finance minister are simply handed to the populist finance minister to spend. Let us suppose that not only do prudent finance ministers prioritize savings more highly than populist ministers, but that the quality of their spending is higher. Thus, the prudent finance minister faces a dilemma. If there is a significant risk that there will be a future populist finance minister then the current prudent finance minister may reasonably decide that the best course of action is not to save the revenue even though savings would otherwise be warranted. This is a form of time-consistency problem because future governments would be better off if only they could tie their hands, renouncing the freedom of a future populist minister to mis-spend the savings of the current prudent minister. If they renounced this freedom the prudent minister would save and this would make a future government better off, whether or not the minister was populist, whereas while ever the future government retains this freedom then it cannot benefit from it. Evidently, a future government cannot itself renounce its freedom because it does not yet exist. However, the present government can act on behalf of the future government by establishing a fiscal constitution. By this I mean a constitutional provision which enshrines some basic principles of the savings decision which curtails the freedom of a future populist minister of finance to deplete assets.

In the absence of a fiscal constitution the decision of a prudent finance minister not to save windfall resource revenues need not be a mistake. Rather, it is the consequence of misaligned incentives. Several resource-rich governments have now recognized the need to realign incentives by introducing a fiscal constitution. For example, the governments of Chile and Nigeria have both recently enacted such provisions to handle the depletion and price swings of their commodity exports, copper and oil respectively. Constitutions can always be overturned. However, the process of overturning them is both public and slow. These obstacles might well be sufficient to deter a populist minister from even attempting to deplete assets: by definition, a populist finance minister is in a hurry (in economic terminology he has a high discount rate). In making the populist option more difficult, the fiscal constitution also reduces the returns to becoming a populist minister of finance and thereby makes populism less likely.

Decision 5: The public investment decision

Having determined the proportion of resource revenues to be saved, the government must then decide which assets to acquire. Specifically, it must decide how much of the savings should be held abroad and, for the savings invested domestically, which investments should be chosen. There are two distinct reasons for saving abroad. One is that those savings intended to smooth consumption over the price cycle need to be held in liquid form so that they can be depleted during the unpredictable periods of low prices. Hence, they have to be held in foreign financial assets. Domestic financial assets, though liquid at the level of an individual holding, are merely claims on illiquid investments within the society and so cannot in aggregate be liquidated. The other reason is that at some point the return on domestic

investment is liable to drop below that available on world markets and at this point it is better to hold savings temporarily abroad until conditions within the economy permit them to be switched into domestic investment. This is termed "absorptive capacity." The rate of return on domestic investment is influenced by many factors, but a particularly pertinent one is that during savings-driven investment booms returns are driven down due to both the congestion at the planning stage and rising construction costs at the implementation stage. It is usually more efficient to stretch the domestic investment of the savings generated by a commodity boom over a longer period than the commodity boom itself.

Complementing these macroeconomic considerations about absorptive capacity, are microeconomic concerns about the selection of public investment projects. For a project to be satisfactory it should meet two criteria: Honesty and efficiency; and so these aspects of the project need to be assessed prior to approval. An effective public investment process should thus subject all proposed projects to two tests. Dishonesty in public investment procurement is a massive problem in resource-rich countries. The minimal defence against it is to require all projects to go to competitive tendering. Since it is easy to subvert competitive tendering, as with auctions there needs to be some scrutiny of the process backed by certification that the tendering process meets reasonable standards. For example, a common way in which competitive tendering is subverted is for public officials in charge of procurement to agree in advance with a particular firm that once it has been awarded the contract the government will change the specification in such a way as to warrant repricing. A contract to build schools might be recalled in order to change the design of the buildings and the alterations accepted at a price higher than is warranted. While there is indeed a genuine need to be able to adjust contracts, since the adjustments are not retendered there is scope for abuse and so the process needs to be policed. Honesty is not enough. Some of the most egregious public investments of resource revenues would have been disastrous even if their implementation had been completely honest because they were foolishly conceived. The defence against this process has to be technocratic: The likely rate of return on projects has to be estimated in an impartial manner, with only those projects that offer returns over some threshold set around the rate of return on assets held abroad being approved. This was in essence the decision process that enabled Botswana to convert diamond revenues into world-beating growth. The evaluation of public investment projects is standard in developed countries, but it is also a process that is readily gamed. Because future returns are inevitably hypothetical, it is invariably feasible to manipulate estimates to suit political demands. Hence, again there is a need for scrutiny and certification of the process.

The tendency to use the revenues accruing during commodity booms for surges in public investment projects which are poorly selected is, to an extent, a mistake. However, it also reflects misaligned incentives. Where ever public procurement processes and the scrutiny of rates of return are weak there are large personal gains to be had from maximizing the current flow of public investment projects. Indeed, since many of the kickbacks accrue upon commissioning the project, there is an incentive to commission far more projects than can be implemented, resulting in the common spectacle of projects that stand uncompleted for many years while new ones start up around them. Thus, the core problem is less a matter of mistakes than of misaligned incentives.

4. THE ROLE OF VOLUNTARY CODES

Recall that our starting point is the current commodity boom against the backdrop of the dismal history of the resource curse. History must not be repeated, but it will be repeated unless there is an appropriate combination of learning to correct past mistakes, and institutional innovation to correct misaligned incentives. I now consider to what extent voluntary codes can be useful in facilitating both learning and the realignment of incentives.

Manifestly, voluntary codes can be powerful instruments. The EITI and the Kimberley Process are both important examples of how voluntary codes can improve resource extraction. To what extent can this approach usefully be extended?

Voluntary codes have power for four core reasons. Their basic rationale is informational. The code simply codifies good practice and thereby informs governments as to what is generally considered sensible. The codification helps to distinguish this particular advice from the babble of advice, often contradictory, to which governments are subjected. Governments can respect codified advice because they infer that it has been subject to thorough and impartial analysis.

However, the informational role is probably not the most potent aspect of codes. In all the badly governed resource-rich societies there are reformers anxious to cri-

tique poor policies. However, the reformers themselves face a coordination problem: Each voice for reform is also, often inadvertently, a voice for self-promotion. Thus, for the normal human reasons of personal rivalries it is often difficult for reformers to coordinate around an agreed set of objectives. Recognizing this, the opponents of reform often play a game of "divide and rule." A code has the advantage of providing a neutral goal around which reformers can rally. By being depersonalized, it is both easier to get pressure for adoption, and easier to defend once adopted than any personalized reform.

Voluntary codes also provide a norm for the coordination of external pressure. Adherence to the EITI rapidly became a condition for some donor assistance, and adoption of the Kimberley Process became a benchmark for NGO pressure.

Perhaps most importantly, codes separate the sheep from the goats. By revealing those governments that are willing to comply with a particular set of standards, they also reveal those that are not. There is a strong incentive for governments not to reveal themselves as being in the latter category. A dramatic instance of this phenomenon was the creation of the Euro, something initially intended so that France could have a common currency with Germany. Once Spain announced that it intended to meet the criteria for membership, Italy and Portugal felt compelled to do the same. Similarly, the Kimberley Process, though voluntary, has rapidly attracted every diamond producing country in the world.

Where is there currently scope for codes concerning the revenues for resource extraction? Of the five critical decision points, only the third is currently covered. All of the other four have potential for being codified. One new code could cover the design and conduct of auctions. A second could cover the specification of the time horizon and tax regime, for example, setting limits on the horizon of rights sold by transitional governments. A third could cover the savings rate out of resource revenues likely to be appropriate. A fourth could cover the procedures for public investment.

If these codes are to be promulgated some entity needs to be responsible for them. The precedents for the promulgation of voluntary codes suggest that various approaches can be effective. Many codes of economic behaviour have been promulgated by the IMF and are part of its annual Article IV consultation process in which all its member governments are required to participate. The Kimberley Process is run by public-private partnership between the diamonds industry, NGOs, and diamond-producing governments. The EITI started as an NGO campaign, was then adopted by the British Government, was then tentatively and temporarily lodged with the international financial institutions and has now become an official international organization headquartered in Oslo. Which agencies would be most appropriate as the codifier of the four proposed new codes?

It would clearly be both more effective and more practical to lodge the new codes with existing agencies rather than attempt to create new ones. The four codes naturally cluster into two pairs. The first two, on auctions and the specification of mineral rights, are both concerned with transparency in resource revenues. The other two, on the savings decision and the processes of public investment, both concern the conduct of budgets. The first pair is close to the existing mandate of the EITI and would most naturally be lodged there. They would require the organization to acquire some expertise in the conduct of auctions and the design of rights but this would surely be feasible and complement the expertise that as a new organization it already needs to build. The second pair, concerning budgets, belongs most naturally with the IMF and the World Bank. The Fund is indeed already advising governments on savings out of resource windfalls and codification would be a sensible development of this work. Similarly, the World Bank routinely undertakes Public Expenditure Reviews, and specific guidelines on processes of public investment for resource-rich low-income countries would be again be a natural extension of this work.

Independent international verification and certification are now standard in many areas of economic activity. The new codes would require two distinct systems of verification, one concerning the conduct of auctions and the other the conduct of public investment. The core rationale for each of them is that a government needs to be able to demonstrate to its citizens that it is in compliance with its own stated commitments. The governments that are most in need of this capacity to enhance their credibility are those with poor reputations that are attempting to reform. Hence, the provision of verification and certification is not a quasi-police operation intended to force compliance upon an otherwise recalcitrant government. Rather, it would enable those governments that were genuinely committed to reform to reveal their type. As such governments revealed their type, corrupt governments would be revealed by default and this would facilitate pressure for change within their societies. Reforming elements would be able to ask why their governments had chosen not to comply with international norms that other governments had adopted.

5. THE ROLE FOR INTERNATIONAL LAW

International law is so difficult to get enacted that it must be used very sparingly. Is there a real need for the promulgation of new international law regarding resource extraction? The one area where new law might be pertinent is to reinforce the voluntary code on auctions by requiring those resource extraction companies based in the OECD to enter into new contracts only through certified auctions of extraction rights. Would this be desirable and is it feasible? The close analogy to such a law is the antibribery laws which were adopted across the OECD in a coordinated process orchestrated by that body. It was important for these laws to be coordinated since no single country was prepared to disadvantage its own businesses vis-a-vis those of other countries by enacting a law individually.

What would be the consequences of such a pan-OECD law? One possible consequence would be that the governments of resource-exporting countries would not adopt certified auctions and as a result China would scoop the pool of resource extraction contracts. However, this is not a likely outcome. Once the law was adopted, a government that decided to sell extraction rights through a nonauction process would know that a key group of potential purchases was thereby excluded. In effect, the decision would hand monopsony power to China and thereby manifestly disadvantage the country. It is one thing doing deals with China when China knows that the government with which it is dealing has many alternatives, and quite another to choose to put oneself in such a disadvantageous position. Obviously, by holding an auction a government would not in any way preclude selling the extraction rights to the Chinese. Hence, within resource-rich countries there would be strong pressure to preserve competition for the purchase of resources by adopting auctions.

If as a result of the legislation auctions became standard then the OECD countries would benefit. At present sales are often conducted in an opaque manner. This is sometimes tantamount to a competition in the degree of corruption that the bidder can countenance, and sometimes a competition in which China can supplement its offer by aid but OECD companies cannot.

Laws involve penalties for breaches. However, the court-inflicted penalties need not be severe because the power of deterrence in this case is likely to come predominantly from citizens, both as consumers and as employees. No significant OECD-based resource extraction company could afford to acquire concessions for resource extraction through processes which clearly breached of the law. In effect, much of the power of the law here comes from the information signal conveyed by the detection of a breach. Consumers and employees know to penalize companies that act illegally.

6. CONCLUSION

The current commodity booms constitute the most important opportunity for development that low-income commodity exporters have ever had. Yet if history repeats itself this opportunity will be missed. In these countries aid has limited potency: Their governments are sometimes already awash with revenue. A neglected type of assistance, which might be more helpful, is the promulgation of voluntary codes and laws specifically designed to improve the economic governance of resource rents. For the resource-rich countries improving economic governance is of the essence. In this paper I have suggested how new codes and laws could address both the mistakes and the misaligned incentives that lead inexorably to the resource curse. Difficult as these new codes and laws would be to promulgate, the costs are trivial both relative to the scale of existing development assistance and to the likely beneficial effects.

Senator FEINGOLD. Thank you, sir.

We'll begin with 7-minute rounds.

Professor, I'll begin with you. Thank you again for your testimony. Given your long career of working on these issues, I'm curious where you've seen progress in reversing the resource curse. Are there particular success stories that you'd turn to in Africa that we can use as examples for efficient and transparent resource management?

Mr. COLLIER. Yes. I'm moderately optimistic. I think there's quite a lot of learning from failure been going on. We see that most remarkably in Nigeria, where the reform team that came in in 2003

really had learned from failure. It was just determined not to repeat history, got this whole—two things going. One was the fiscal responsibility act, which was fundamentally about the savings decision. But the other was introducing competitive tendering in public procurement, which was fundamentally about the investment decision.

So they managed to set up institutional processes on both those two critical downstream decisions. So it was very impressive.

I was recently in Uganda, where the Ministry of Finance and the central bank are very concerned to handle these things right, very aware of the pitfalls. Last week I was in Zambia, where the Governor of the Central Bank is deeply concerned. And with the sad death of President Mwanawasa, that's a real turning point in that society. It could go right or wrong.

So across the continent there's a lot of awareness. Ghana, which has got, like you say, all these discoveries, it's fragile. It could go populist. They've got an election coming up. It's an easy issue for the three candidates to promise to throw a consumption party. That's the downside danger. So it's trying to—the only way to counter that is to build a more informed society on the custodial role of depleting these assets and pointing to the neighbors, the sad history of the neighbors who have already been there.

Senator FEINGOLD. Let me ask you about Chad and Cameroon. As you know, controversy has long surrounded the 650-mile oil pipeline between Chad and Cameroon that the World Bank helped to construct. Earlier this month the Bank finally canceled that agreement because the government has failed to translate revenues into poverty reduction.

What can be learned from the bank's experience with this project?

Mr. COLLIER. I think, to be honest, I think the bank was foolish to go into the agreement from the start.

Senator FEINGOLD. Foolish for going into it in the first place?

Mr. COLLIER. Yes. I think the proper analysis of the Chad deal would have said this is what economists call time inconsistent. That is to say the government had no incentive to keep its promise. It had every incentive to make a promise, because by making the promise—the promise was the government will pass legislation, the World Bank will take the reputational risk, and the oil companies will sink investments of $4.2 billion.

Then you ask yourself, which of these actions is easier to reverse? And it's not easy to take the $4.2 billion investment out of the ground, but it's very easy to change the legislation. And the oil companies, once that's done, have very little incentive to put any spine into the defenses because it's the World Bank which is carrying the reputational risk.

So the whole structure of that deal was to my mind doomed, and so it shouldn't have been set up. Twenty minutes of decent economic analysis at the start would have said this is doomed.

Senator FEINGOLD. Thank you, Professor.

Mr. Goldwyn, thank you also for your testimony and for your previous service to the United States. I want to first follow up on your assessment of the bureaucratic obstacles within the U.S. Government to effective interagency strategy and implementation with

regard to promoting good governance and transparency in energy-producing countries. Could you elaborate a little bit on those obstacles?

Mr. GOLDWYN. Yes, thank you. In the United States right now we have a very disaggregated system of responsibility in terms of energy. Energy advocacy—production, the Commerce Department is interested in that. Energy security itself, no one is really responsible because energy security means in some senses stability of supply. Well, that's a political question, how stable are your suppliers. So it means that the Africa Bureau would worry about Nigeria if they had time to focus on Nigeria, but the people in the economics and business office, which might worry about supply, don't have a relationship with Nigeria and they're not going to go in and talk to the President. At the very senior level, there's no one really on the national security staff which is responsible for looking at both the relationship of the countries and the impact of the economics and the impact of governance, transparency, the underlying problems. Human rights people have one piece and economic people have another piece and the bilateral have another piece.

Nobody on the seventh floor of the State Department is really responsible for doing this. The Under Secretary for Economics, Energy and Agriculture is in there too, sort of has that job, but not the focus. So as a result, we don't have an integrated look at this.

Even on transparency, EITI is the Economics, Energy and Agriculture Bureau. Voluntary Principles on Security is in the Democracy Bureau. If you're going to make change within a country, it's going to be at the head-of-state level, especially in Africa and developing countries. It's where all the policy is made. And there's nobody in the economics and business office that's going to get a meeting with a head of state of any of these countries.

The issue is this: When our President or when our Secretary of State talks to these countries, is this on their agenda or not? Right now it's not. So it's a failure of organization, but it's also a failure of policy focus. Right now we don't see the problem as an integrated whole. There is foreign policy and there's energy and we don't mix them together.

That part you can't fix with a wiring diagram. That's got to be a change in consciousness and strategy and policy. Actually, one of the recommendations I didn't talk about in my oral testimony is we might commission a national intelligence estimate on energy security in Africa or worldwide, because it's a way that people will see the risks of governance and transparency and supply. By having an estimate, you can put that on their table and it will get the attention of all the policymakers. That's something that the Congress might be able to motivate.

Senator FEINGOLD. Thank you for that suggestion, Mr. Goldwyn.

Senator Isakson.

Senator ISAKSON. Following up on that point, before you asked that question and he answered, I was getting ready to address the question about lost influence. But let me go to this disaggregated responsibility. I think that's a correct statement, that there is not as much coordination as we need between agencies dealing with Africa.

But I would take issue with the statement you made about we've lost influence in Africa. I'm not an expert. I've only been on this subcommittee for a year and a half. But it seems like I can't remember a time when the United States has invested more or spent more, or had more of an emphasis in Africa, in my lifetime than we have over the past 8 to 10 years, from PEPFAR to engagement with the African Continent to AFRICOM and stuff like that.

So I just wanted you to elaborate a little further on this recent lost influence in Africa that we have.

Mr. GOLDWYN. Thank you for the question, Senator. There's no question the United States has a lot of engagement in Africa, and our engagement in the health sector is really dramatic, and our engagement in counterterrorism and the Pan-Sahel Initiative, or now the Trans-Saharan Counterterrorism Initiative (TSCTI), is impressive also.

But we have a lot of competition now that we didn't have a decade ago. We not only have competition from the Europeans, but China and Africa. There are now hundreds of companies in the upstream in Africa. The wealth has changed the calculus also. There was a time a decade ago when an offer of trade or an offer of aid or debt relief would give the United States traction with these governments. They needed to listen to us because their political survival was dependent on their relationship with the United States. But with these incredible revenues right now, they can borrow in the capital markets or they can get a loan from China, and they don't need our debt relief and they don't need our aid, and the areas where we want to give aid, like civil society, is not an area that's top of their agenda anyway.

So our ability to basically use pressure and influence to change their behavior has evaporated with the competition and the wealth, but also with the disengagement. Take Angola for example: One school is they're bad, don't talk to them. But the problem when you don't talk to them, when the Assistant Secretary of State for Africa goes there once every 4 years, is they don't really care a whole lot about what we think. They have no stake in the relationship.

That's why I think we can recover that by more engagement. On the key countries—Angola, Nigeria, Equatorial Guinea—we now engage and we have shown some results for that. But a lot of these countries, we don't really talk to, and it's hard to have influence without that relationship.

Senator ISAKSON. On that point, Equatorial Guinea, Obiang just released those 34 political prisoners that he'd had, that we've been insisting on for some time, which was a move in the right direction on the human rights side. I think the State Department, at least in the engagement I've had with them, has worked very hard on promoting exactly that type of behavior, and finally raised enough pressure to where he did it. So that was a good move by them.

Mr. Taylor, what is Public Witness? Is that the name?

Mr. TAYLOR. I'm sorry? Could you repeat that?

Senator ISAKSON. What is Global Witness?

Mr. TAYLOR. Global Witness.

Senator ISAKSON. Tell me a little bit about what Global Witness does.

Mr. TAYLOR. Global Witness is a nongovernmental organization. We have a base in London, we have an office here. Some of my colleagues are here with me. We're an organization that has spent since its inception in the early 1990s its time looking at the link between natural resources and conflict and all the various facilitating factors around that. So our interest has been the role of middlepeople, the key actors, companies associated or not, the various resources and so on, the trade mechanisms and pathways.

Part of what we do is investigative, so we do also undercover investigation work. Some of it's normal, everyday type of research that anyone else might do. We compile our information together in reports where we present our findings, which are the findings of people on the ground, and then we basically visit wherever appropriate, whichever countries are appropriate, to seek positive change. Hence our involvement in processes like EITI, like the Kimberley process, and so on.

Senator ISAKSON. Well, I read your testimony, which I found to be very informative, I might point out. You made a comment in your verbal comments about this needing to be a process of best performance, not only by the African country but also by the company participants. I read in your printed statement that recent testimony by Mr. Stanley pleading guilty to a $180 million payment to one of the governments. I've forgot which one it was. That I guess is the type of company participation you're talking about.

Is that the exception or is that the rule in Africa right now with American companies?

Mr. TAYLOR. I suppose I've looked at this more from an international perspective.

Senator ISAKSON. Well then, international.

Mr. TAYLOR. But that of course involves American companies. So I think that the truth of the matter is that we've looked in lots of countries outside of Africa as well, Central Asian, former Soviet Union Republics as well, and the pattern seems to be that it really depends on the players on the ground and the extent to which there is or isn't governance and who the key players are in the country.

So you will find in some countries some companies have done all sorts of questionable things, and yet you will also find the same companies being almost champions of the good in neighboring countries. So really, it's not a clearcut, homogeneous type of effect. So we know of companies, for example, in Angola that were shipping arms to the government side through invisible subsidiaries that didn't exist on any formal books, based in tax havens, during the last stage of the fourth stage of the Angolan civil war. What on Earth is an oil company shipping arms for?

Again, that's not uniform and it didn't just apply to a certain company from Western Europe who doesn't exist any more. I can elaborate a bit more if you'd like. But there were more than just the obvious ones, the worst players involved in this type of practice.

Senator ISAKSON. So from that answer I take it it's more what the countries proposed, rather than a culture of doing business of just offering bribes going in; is that correct?

Mr. TAYLOR. I think the context of the country concerned influences the type of behavior that happens. But I think, just as within

governments you meet people who are very effective and you also meet people who aren't very effective, I think the same applies in companies. So it really depends who's on the ground in the company. Perhaps had a different executive been involved in that particular country, they might have chosen a different pathway. Who knows?

What we see is what we've pulled up and found in the course of digging around, sometimes for a long time. And you get a very clear picture of who's been doing what and how they've been doing it.

It's for that reason I think that, whilst the EITI addresses this kind of bringing governments in and I'm very keen to stress that I think it needs to be a good club, a club of the good, rather than a club of the bad who've been forced to join—hence I think the United States and Britain and so on should also participate—it's not enough, because there are some countries that will never join, like Angola we think—why would Dos Santos Inc. want to make itself accountable? The answer is it doesn't. And at the same time, different companies have been involved. So it's necessary to bring in elements of rigor around the accountability for the way in which the companies themselves have behaved.

Senator ISAKSON. Thank you very much.

Senator Lugar.

Senator LUGAR. Thank you very much, Mr. Chairman.

Let me once again just take up the point that you made, Senator Isakson. That is that the three witnesses we have before us now have written outstanding papers and offered insights I believe that are very, very helpful, and we appreciate that. I want to pick up particularly one of these insights about the organization of our own government. You dwelt on that, Mr. Goldwyn, in pointing out the dilemmas of who in our government has some responsibility for some facet of the energy problem we're discussing this morning.

But the central point that some of us have tried to make in the committee, even offered legislation—and Chairman Biden has been very active in this area, in addition to Chairman Feingold, and I've tried to participate in making the point to Secretary Rice and to others that we really have to have an Energy Secretary or a coordinator, someone of stature, who is able from the security standpoint to make a difference.

Now, there have been some modest attempts made in the Department in that direction, which we appreciate, and I pay full tribute to those who have those responsibilities. But as you say, they do not appear to be able to get items onto the President's agenda or maybe even the Secretary's agenda, as there are face to face meetings with other persons at the highest levels, and that is of the essence right now. There may come a time in which the fabric of diplomacy of the countries that we're discussing in Africa permits assistant secretaries or others on down to have these sorts of dialogue and make a difference, but not at the present time, which requires higher level actors.

So I am hopeful that our persistence and yours from the outside will be helpful, because this is an essential point for our government right now in discussing Africa or, for that matter, in conversations with people in Russia, for the same reason.

Well, let me just follow through by saying that in Angola, and we spent I think quality time on that today, the chairman has mentioned his meeting President Dos Santos many years ago. After several years, then-Secretary Reuben Jeffrey visited Angola last summer, which was in fact the first high-level contact by an American official in the country. Our staff members who are behind me today visited this summer, and I think since the chairman's visit were the first persons representing Congress in any way.

It may be that our officials feel Angola is inhospitable, but nevertheless it is a very important country. We often talk about the need for diplomacy with countries with whom our relations either need repair, strengthening, or are virtually nonexistent, and this would appear to be a good example. It arises in part because it's an important country strategically in Africa, but also because of the energy focus that we have this morning and the implications for others, not only in Angola but outside of the country in this respect.

So I appreciate your pinpointing the lack of contact and observation. Even if we got right our organization, whoever the Secretary of Energy was and the State Department would need to go to Angola, or someone representing him or her at that level, at some point.

Let me just pick up a third point. You've mentioned the Norwegian model, perhaps inappropriate for many of the African states, and I accept that point. But I can remember a trip to Azerbaijan and a visit with President Aleyev in 2005, at the very beginning of the first trickling of oil from the Baku platform of BP starting its headway through Georgia on to Chehan, Turkey. The question before that country at that point was just the one we're discussing today, What degree of transparency? Really, not that Baku had not had an oil history for decades, but this was a new beginning, and obviously the predictions of the change of the GNP for Azerbaijan were at the order of 50 to 100 percent a year for the better part of the next 5 as projected.

When I asked President Aleyev the question, he cited the Norwegian model. Without your knowledge about this, I said: That's a good model; I appreciate that; I'm going to report that to everybody in the United States.

Now, in fairness, I've seen President Aleyev in each subsequent year, 2006, 2007, 2008, just this summer. He's followed through. Now, it's not exactly the Norwegian model, but still there are some very bright young Azeris, economists, who do make transparent the amount of money coming into the country and the various levels that are going into the government now, because the next point then was, what about the rural roads in Azerbaijan or the schools for the people that are not in Baku, or the cleanup of the mess of the oil business, say for 7 decades, or so forth. And each time the President has pledged that they're doing it, and he's begun to produce figures that are doing this.

Now, I cite this simply because conversations and visitations of this sort are I believe helpful. Not that I was that persuasive, but somebody at least kept asking, kept reporting. He knew that it was being reported. He was proud really of the reports. We reported to the people of Azerbaijan in press conferences within the country

what was occurring, with the full knowledge of the President, not as a covert agent.

It's a very small country, but a huge amount of money, and it continues to grow and will, with 1 percent of all the oil in the world going through that pipeline today. And it all starts there, with huge royalties coming in, plus the whole strategic problem of the NABUCO pipeline situation.

Now, this is an interesting model for African countries to take a look at. They have many more people, much more diverse population and governance situations, but it's not unique in the world today to do it right and at least to make some headway, and to pay credit internationally to people who do this sort of thing. Our senior officials visiting can do that.

So I take advantage of this hearing and your presence to make these points because I think they may be important for our diplomacy, and I congratulate you again on your scholarship which informs all of us.

Thank you, Mr. Chairman.

Senator FEINGOLD. Thank you, Senator Lugar.

I'll just have a few more questions as we get near the end of the hearing. Back to Nigeria again, Mr. Goldwyn, Nigeria is so critical in terms of our energy policy, as Senator Lugar was just talking about. Yet our engagement in the Niger Delta under this administration has been minimal. How specifically can the next administration reengage and what are the first steps, and what would be the role for Congress in this?

Mr. GOLDWYN. Thank you for the question. Just one word for Senator Lugar, I just have to say: Thanks to you for your leadership on this. Clearly we wouldn't have a Caspian ambassador-at-large if it wasn't for your legislation. The Western Hemisphere. You've advocated this issue in all regions of the world, and it is an example of how it can work. So thank you and your staff for your leadership.

On Nigeria, we have to be humble about Nigeria because the core of the problem there is a lack of political legitimacy. You have a President whose candidacy is still not certain because it's under appeal. He doesn't have control over the Governors. A lot of the Governors may have control over him. You have a Federal system with limited powers over the regions.

But I think there are a number of ways in which the United States can help and I think we need to work first with the European countries and perhaps even with China on it. First is to use the power of the Presidency, our President and Secretary of State, to communicate to Nigeria, as we have not significantly done over the last 6 years, that this is an international problem. Crime is spreading to neighboring countries. Destabilization is happening to neighboring countries. Nigeria's own democracy is at risk. So part of that is to keep the pressure on to deal with this problem.

Deal with this problem has two aspects. One aspect of that is development and the other aspect of it is political engagement. On development, I think if we are willing to be quiet about it and to talk to this Niger Delta ministry, to talk to others, about how they can spend the significant sums available for development to make a difference in the Delta I think that can be helpful, because

there's been a lot of money washing around, as has been said here. It's absolutely true. But whether that's roads, job creation, they've got to have change on the ground.

I think we do have expertise, we this community here, the development community, but that has to be quiet and not in the newspapers and not public, because if it looks like external pressure they're going to push back on it.

The second thing is I think we do have to have a quiet conversation with the Nigerians that it isn't just their problem diplomatically. There's strong resistance, especially to the former colonial powers, to go in and tell them how to do their business. But the fact is that by having a contact group—United States, European Union, the Chinese, if they're willing to be part of it—that you can give the groups in the Niger Delta, the militants in the Niger Delta, the sense that there is an external watch going on over whatever political concord is going on. We're not going to be guarantors per se in terms of military, but we can be helpful.

I think the third thing we have to do is keep shining a light on the transparency side and on the crime side. I think we, through a previous CSIS study, we figured out that for $100 million you could put basically a ship with radar capability into the river delta and some fast boats and you could basically shut off bunkering from the Niger Delta through two river streams.

The Nigerians didn't want to take us up on that offer, but I think we've got to keep putting that in their face because it's a way to say, we can show you how it's done and then you can buy this yourself. So I think there's a security strategy as well.

But I think the last thing I would say is something we didn't do and we need to do in the future is to acknowledge progress where it has been made. We never complimented, at the Presidential or Secretary of State level, the Nigerians for doing Nigeria EITI, for doing the greatest, most intrusive audit ever done under EITI principles, for publishing what was paid in the States and everyplace else. We've just sort of hit them when they're down, but we never said this is great. And they need that for the political return for doing this kind of work, to give them a political incentive to do it. So I think we need to find a way to say "good job" where we can.

Senator FEINGOLD. I think that's a really good point. I remember when President Obisanjo wanted to think about going for another term and Parliament said no. I went out of my way to say, this was a great thing that you stood firm on this. It's very important that you acknowledge the positive. I appreciate that comment.

Mr. Taylor, it looks like you wanted to comment on that point, and then after you do that I'd like you to go into a little bit more detail about the importance of civil society in African countries, the critical role they play in ensuring accountability within extractive industries. In your experience, how can civil society in Africa be further supported to play a more active watchdog role?

Mr. TAYLOR. Thank you, Mr. Chairman. It's just a small point. I don't disagree with what David was just saying in terms of the Niger Delta and bunkering, but this might be of interest and I think it requires a bit further checking because I would sort of solidly support such an approach. But a number of years ago we were informed that Shell had a technological capacity to essentially—

this might be the wrong terminology, but essentially fingerprint oil from certain locations. Obviously, you need a reliable database from the various places.

The reason I want to raise this is we're talking a lot of oil goes disappearing net. You hear the figures 300,000 to ½ million barrels per day can just go; a vast quantity anyway. My point really is you can't hide that stuff. Somebody in some refineries are getting it.

At the time of the conversation I'm referring to, there was reference to a refinery—I don't know which one—in Texas and another one in Rotterdam. So wouldn't it be interesting from the enforcement point of view to check whether certain supplies of oil into various refineries that maybe one could sequence are actually receiving this stuff, because it's basically stolen goods.

At the time there was a refinery down the coast, I think operated by TOTAL, in Côte d'Ivoire that took only 30,000 barrels and they discovered that it was taking bunkered oil. What the government did I understand was to short out the bunkerers by basically formulating a proper contract so the money went to the state instead of the bunkerers. It seems to me that would be a very cost effective, very nonviolent way of dealing with what is otherwise a difficult thing when it comes to enforcement with lots of people with guns. It just seems I'd just like to commend that as something worth looking into.

In terms of civil society itself, it's something I really wanted to emphasize. We've encountered a number of problems in different countries, ranging from Congo-Brazzaville, where our colleagues there were judicially harassed for nearly a year, to Gabon, where civil society organizations were effectively closed down whilst Gabon was a board member of EITI.

One aspect I think of a heightened effort by the U.S. Government, but also other participants, is to jump on this stuff, think to create the culture where a country like Gabon wouldn't even consider closing down civil society whilst a board member. I find it quite unconscionable that they even thought that was a goer. So I think to do something to address that.

We desperately need to have civil society empowered, because this is not an audit process where you put the file on the shelf; this is about civil society holding government accountable. If, as we referred to EG earlier, 34 political prisoners released, well, great. But they still win 99 percent of the vote, there's no opposition press, there isn't really a civil society. We need to do something about that. Otherwise, frankly, it becomes a bland auditing process and won't deliver.

Senator FEINGOLD. Thank you, Mr. Taylor.

I thank the whole panel. It's an excellent panel. I know all three Senators involved feel that way. I particularly want to thank my colleagues for their very serious participation in this entire hearing.

I'm going to close the hearing. We're going to leave the record open until Friday, without objection. With that, the hearing is concluded.

[Whereupon, at 11:27 a.m., the hearing was adjourned.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

PREPARED STATEMENT HON. CHARLES E. SCHUMER, U.S. SENATOR FROM NEW YORK

Chairman Feingold, Ranking Member Isakson, and the other members of the subcommittee, thank you for holding this hearing on this important subject. I am pleased that the committee is looking for ways to address the resource curse and to promote policies that will help countries with abundant natural resources develop economic development and political stability. I strongly believe that utilized properly, natural resources can play a positive role for economic and political development in host countries. However, declining economic growth, social inequality, political repression, domestic violence, and pervasive corruption are more often than not the outcome when developing nations tap into their natural resources.

One of the most serious problems with the operation of extractive industries in developing countries is the lack of transparency in the accounting of revenue and profit from extractive industry. This lack of transparency often gives way to endemic corruption, creating "rentier states," with weak government institutions that use these revenues to keep themselves in power, and often fall prey to powerful outside interests. As a result, citizens of these countries see little, if any benefit, from their own natural resources. More often than not, they do experience all the negative consequences from the extraction of natural resources. And corruption within host governments increases the potential for global economic and political instability in the form of civil unrest, state failure, terrorism, and economic and humanitarian crises.

As a result, resource-rich developing nations rank at the bottom of development indices, especially with regard to economic growth, transparency, and stability. Countries such as Nigeria and Angola are clear examples of this; their governments have consistently been bad stewards of their countries' natural resources. Instead of generating wealth and political stability, the income generated by natural-resource extraction creates incentives and opportunities for corruption, and finances extra-legal activities, such as militias used for domestic oppression.

Currently, there are no rules in place that explicitly require any disclosure of the payments that host governments receive from international oil or mining companies that operate in their country. All too often, the international companies who engage in natural-resource extraction in these countries pay significant fees to the host governments, as a prerequisite of even being able to operate within their borders. As a result, it is difficult, if not impossible, to calculate the revenue streams to a government from crude oil, mining, and/or natural gas extraction, with any accuracy. This lack of accountability allows the host government to abscond with the revenues that should be shared equally by all citizens. Often, government officials will use this wealth for their own personal enrichment and to secure their hold on power, allowing them continued access to the wealth of the state.

It is clear that without a financial accountability on the part of the host government, the extraction of natural resources will continue to perpetuate poverty and hinder economic growth and political stability in developing countries. In an effort to ensure that these payments to host governments are not being channeled to corrupt officials or being used to fund political violence, I have introduced the Extractive Industries Transparency Disclosure Act of 2008.

This bill would require all companies registered with the Securities and Exchange Commission (SEC) to annually publish any payment made to foreign governments for the extraction of natural resources, including oil, gas, metal ores, coal, industrial materials, and minerals. The legislation also directs the SEC to make the information it receives publicly available on its Web site so that the information is available to citizens of the host countries, nonprofit organizations and other groups working in the host countries, and to corporate shareholders.

The cost to the SEC of implementing and maintaining this information would be minimal. According to Global Witness, 14 of the world's 15 largest publicly traded oil and gas companies would be covered by this legislation. This will help to ensure that a level playing field for all companies is maintained. My legislation would also protect foreign companies from giving bribes or other types of illicit payments to host governments, as any and all payments made would have to be publicly disclosed.

According to the Publish What You Pay Coalition, 25 of the world's 33 oil rich countries have "low" or "medium" UNDP human development ratings; this bill will help ensure that the benefits provided by natural resources in these nations are directed to those most in need. Public disclosure of these payments will allow ordinary citizens and government accountability groups to hold governments liable for money stolen, misspent, or squandered. The transparency provided by this legislation is a

critical step in fighting corruption and the instability it fosters in resource rich developing nations around the world.

Instability in resource-rich is more than a development problem—it directly impacts our national security, as well. In addition to its current instability due to political and ethnic fighting, Iraq is also at risk of the resource curse. Much of the current fighting is centered over the shift of power between the Sunni Arabs and the Shia Arabs. This fighting will be exacerbated once Iraq's oil and gas industry resumes its previous production levels, given the historically high price of crude oil. Even without returning to their preinvasion production levels, Iraq is on pace to generate roughly $100 billion in profit from its oil production in 2007 and 2008.

Unfortunately, the Iraqi Government has yet to pass a revenue-sharing law to ensure that Iraq's oil resources are shared in an equitable and transparent manner and that all current and future revenues equally benefit Sunni Arabs, Shia Arabs, Kurds, and other Iraqi citizens. Failure to pass such a law will make Iraq even more dangerous and unstable, a disastrous outcome for Iraq, the region, our servicemembers fighting in Iraq, and our national security.

I believe that the State Department needs to enumerate a clear policy that encourages the Iraqi Government to develop quickly an effective framework for national hydrocarbon legislation that includes all interested parties. I also believe that the State Department should be working to ensure that any contracts signed for both technical service and oil field development do not circumvent this process and thusly undermine it.

Chairman Feingold and Ranking Member Isakson, thank you again for holding a hearing on this important topic that not only affects economic growth, but our national security. I look forward to future opportunities to advance my legislation and to make progress on this issue in Iraq and other developing countries.

Publish What You Pay
United States

For Immediate Release
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Senate Hearings on Natural Resources Highlight Need for Extractive Industries Transparency Legislation

Washington, D.C. – The United States Senate is holding two hearings today on the issue of natural resource extraction and accountability. The Publish What You Pay (PWYP) United States coalition, which calls for more transparency in the oil, gas and mining sector, welcomes the attention these hearings bring to this critical issue, and encourages the Senate to pass legislation mandating better disclosure of information in these industries.

The first hearing, chaired by Senator Russ Feingold of Wisconsin of the Africa Subcommittee of the Foreign Relations Committee, is entitled, "Resource Curse or Blessing? Africa's Management of Its Extractive Industries."

One of the witnesses, Simon Taylor, Director of Global Witness, a founding member of Publish What You Pay, stated, "Oil companies do not disclose payments in their annual reports, and governments do not disclose receipt of the payments in their budget reports. And so the cycle continues- no transparency about the billions of dollars exchanged for oil and minerals, and no accountability for these revenues because no one knows how much actually exchanged hands."

The first step toward ensuring the billions of dollars of natural resource revenues are a blessing rather than a curse is the transparency of those revenues. A bill addressing this need for transparency was introduced on July 31st, 2008, by Senator Charles Schumer. The Extractive Industries Transparency Disclosure (EITD) Act (S. 3389), would require oil, gas and mining companies to publish their natural resource revenue payments to foreign governments as part of their annual filing to the Securities and Exchange Commission.

In his testimony, Mr. Taylor addressed why this legislation is important, "The EITD Act is critical for establishing freedom of information and a global standard for transparency in the oil sector, at a time when oil company profits are reaching record levels."

Senator Feingold is a co-sponsor of the PWYP-backed legislation. Senator Richard Durbin, also a co-sponsor of the EITD Act, chaired the second hearing on Wednesday, entitled "Extracting Natural Resources: Corporate Responsibility and the Rule of Law." Testifying at that hearing were two Publish What You Pay members, Arvind Ganesan from Human Rights Watch and Bennett Freeman, Board member of the Extractive Industries Transparency Initiative and Board member of PWYP organization, Oxfam America.

Mr. Freeman highlighted the importance of these hearings, stating, "The United States is seeking a secure energy supply and can no longer rely on countries undermined by poor governance and weak rule of law. These hearings highlight the imperative of strengthening the transparency and accountability of natural resource extraction, not only because it benefits businesses, investors, and citizens living in resource-rich countries, but also in the interest of our own U.S. energy security."

The Publish What You Pay coalition urges both the Senate and the House of Representatives to pass the EITD Act, a crucial step toward providing the information necessary to fight corruption and promote accountability in the extractive industries.

For more information about the Extractive Industries Transparency Disclosure Act, visit www.OpentheBooks.org or contact Sarah Pray, PWYP U.S. Coordinator at (202) 721-5623 or spray@pwypusa.org.

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PWYP U.S. Member Organizations: ActionAid International USA · Bank Information Center · CARE · Catholic Relief Services · CorpWatch · EARTHWORKS · EG Justice · Environmental Defense · Friends of the Earth · Gender Action · Global Rights · Global Witness · Globalization Challenge Initiative · Government Accountability Project · Human Rights Watch · International Budget Project · International Labor Rights Forum · Open Society Policy Center · Oxfam America · Pacific Environment · Presbyterian Church USA · Revenue Watch Institute · Robert F. Kennedy Center for Human Rights · Sierra Club · Sustainable Energy & Economy Network

Managing the Exploitation of Natural Assets

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Abstract

This paper provides an analytic review of the upstream aspects of the exploitation of natural resources: the assignment of ownership rights, taxation, the discovery process, extraction, renewability, and clean-up. It sets these issues within the principal-agent framework. It proposes that the present common system whereby governments sell extraction rights prior to discovery through signature bonuses is likely to be socially costly, since the sale of rights occurs at a stage where irreducible risks generate a severe discount. It also proposes that the present common system whereby governments sell extraction rights by means of negotiated deals might disadvantage governments relative to more transparent and competitive systems such as auctions. While the paper is primarily analytic, it also briefly reviews African experience, suggesting that both high commodity prices and the low value of discovered assets per hectare imply major opportunities.

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1. Introduction

This paper discusses the analytic issues of how natural assets are exploited. We focus on the upstream stages of exploitation: natural assets must first be discovered, then extracted, and then renewed where appropriate, or the legacy of extraction cleaned up. The exploitation of natural assets matters for Africa. Even if the valuation of Africa's natural assets is restricted to those already discovered, they are an important component of the region's overall wealth. However, it is likely that most of Africa's natural assets are yet to be discovered. A reasonable approximation is that over a sufficiently large area they are proportionate to the endowment of land. Africans have around 50 percent more land per person than the global average. Conversely, they have radically less physical and human capital per person. Hence, the true African asset portfolio is likely to be very heavily skewed towards natural assets: their exploitation matters for the region.

Section 2, the core of the paper, is analytic. In Section 3 we briefly review the actual African experience.

2. Principles

Table 1 lays out the various steps in the exploitation of natural resources and relates them to the standard framework of the principal-agent problem. The three material processes are discovery, extraction and clean-up. In most circumstances in each case the actor will be a private firm, although not necessarily the same one for all three. The incentives facing the firm will depend upon how ownership rights are assigned and the tax regime. Usually, both of these will be set by the government. In setting them the government faces both an information problem and a credibility problem. The information problem arises because natural assets must be discovered before they can be exploited. Quite generally, the production of knowledge is a complex social problem: intrinsically knowledge is a public good and so will be radically undersupplied unless either private rights are socially constructed or the activity is public funded. For example, scientific discoveries are encouraged both by the patent system and by public funding of research.

The credibility problem is likely to be important because the process of resource extraction is intrinsically sequenced, with some key actions that cannot be reversed and others that are highly reversible. If actors lack robust commitment technologies that bind some key actions that are otherwise reversible then decisions concerning the irreversible actions are liable to be affected. Finally, resource extraction is a high-value process that is usually located far from major urban centres. This makes the physical security of the process far more difficult than either that of high-value urban activities or low-value rural activities. The government may be open to challenge for the physical control of the extraction process from private organized violence in the form of rebellion or criminality.

The first step in the process of exploiting natural assets is the assignment of ownership rights. There are several possibilities and this is the subject of Section 2.1. The next two steps are discovery and extraction. Although natural assets obviously need to be discovered before they can be extracted, Africa in 2008 is evidently not virgin territory: many assets have already been discovered and are being extracted. Hence, for expositional purposes we take the sequence in reverse, first considering the immediate issues related to extraction of known natural assets (Section 2.2) and then turning to the forward-looking issue of discovery (Section 2.3). In each case our discussion concerns the design of incentive systems that are socially efficient. Finally, in Section 2.4 we consider the special issues that arise from the exploitation of natural assets that are renewable.

Table 1: Natural Assets as a Principal Agent Problem

Actor	Decision points	Options	Issues
Government	Ownership rights	None	Equity; rent dissipation
		Finders-Keepers	Equity – ex ante/ex post Rent dissipation
		Landowner	Equity
		Region/ Nation	Equity – jurisdiction size
Government	Fiscal system	Royalty Production share Profits tax	Incentives, risk sharing, information
Government	Allocation of exploration rights	State:	Capacity
		Private : licencing auction/ allocation	Transparency Corruption Surplus extraction
Firm	Exploration effort	High /low	Returns to information
Nature	Uncertain geology		
Government	Allocation of production licences	Combine with exploration licenses?	Risk premium
		Separate from exploration licences: auction/ allocation	Transparency Corruption Surplus extraction Timing
Firm	Extraction effort	High/ low	Returns to extraction
Nature	Uncertain costs Uncertain price	Timing/ depletion path	Risk aversion, time preference
Government	Renegotiation/ expropriation		Time consistency and hold-up
Firm	Clean up		Time consistency
Firm, Government	PV of expected revenue flows		

2.1 Assigning Ownership

Most assets are the consequence of investment. As such, their ownership follows naturally from the process of their creation: the investor owns the asset and can then sell the right to others. Natural assets are distinctive in that they are not the consequence of investment: while resources may have to be devoted to their discovery and extraction,

there is an economic surplus or rent over and above these costs. Ownership of such assets cannot therefore follow from the process of their creation: ownership rights of natural assets are intrinsically 'unnatural'. The process by which ownership rights over natural assets are acquired has potent economic implications both for the distribution of income and for efficiency. The more narrowly are the rights held the less equal will the society be. Further, the social construction of rights over natural assets is itself a value-conferring activity and so economic actors can gain from influencing its outcome, opening scope for rent-seeking behaviour. Finally, any outcome which separates ownership from control has the potential for inefficiency in production.

A second aspect of natural assets is that they are usually difficult to observe. Minerals lie hidden under the ground until discovered, and soil quality can only be ascertained by scientific tests. Those natural assets over which property rights have not been assigned and which are readily observable are living dangerously: people will try to plunder them. This is why game becomes so scarce: once the American West started to be settled even at very low densities, the once immense herds of buffalo were rapidly hunted to the verge of extinction. Being difficult to observe, natural assets must therefore be discovered. This creates a problem in the economics of information: the value is not apparent in advance of the discovery. In this respect the economics of natural assets is analogous to that of invention.

Natural Assets without Social Enforcement

We start with two ways in which natural assets get allocated in the absence of effective social controls. The first is the pure default option of anarchy: there is no authority able to construct and enforce property rights over natural assets: this is an ideal type rather than the description of any real situation. The second introduces limited authority such as actually prevailed in the nineteenth century American West.

Lawless Societies

We start with a society that lacks any capacity for making or enforcing property rights over natural assets: physical control of the asset is all that matters. This gives rise to three problems: mal-distribution, rent-seeking, and inefficiency. Mal-distribution comes about partly because the strong are advantaged over the weak. But it is compounded by chance: some territories are better endowed than others. If we imagine the population distinguished in the two dimensions of strength and luck, the natural assets are acquired disproportionately by those who are lucky and strong. Rent-seeking comes about because if ownership is conferred by physical control of territory, people will divert their effort into violence. Since violence can be offset by counter-violence, in equilibrium the value of the rents from the natural assets will be dissipated by the costs incurred by the violent. Inefficiency comes about because of the uncertainty as to whether control can be maintained in the future. If control is perceived as likely to be temporary, the private incentive is to deplete assets quickly even if this is socially more costly than necessary.

A further consequence is that the absence of property rights interacts with the problem of information. As with inventions, unless discoveries of natural assets are protected there is no incentive to undertaking search. It is more efficient to wait for others to find natural assets and then wrest control off them through superior violence. Hence, they remain undiscovered. Indeed, since the process of losing control of them is likely to be costly, there is even an incentive for suppressing discovery.

Finders Keepers: the Wild West

Now introduce a government with a modest degree of social control. The government is not sufficiently powerful to prevent the extraction of natural assets from its territory, but it is able to manage the process by conferring prospecting rights to private actors and to protect those rights from other private actors. Specifically, it is able to enforce the rule of 'finders-keepers'.

Like the patent system of inventions, the finders-keepers rule depends upon socially constructed rights enforced by government. The opening of the American West depended

upon the legal structure already in place in the American East. The government licenses plots to prospectors who then own what they find. This is how America opened its natural resource economy for exploitation.

The finders-keepers rule is in important respects an improvement upon lawlessness, but it is far from ideal in terms of distribution and rent-seeking. The distributional disadvantage is that the rents are captured by prospectors instead of being spread more widely. The rent-seeking problem arises from the fact that the chances of striking lucky on a plot are increased if neighbouring plots have had lucky strikes. Hence, the profit-maximizing strategy is to acquire many plots and leave them idle until discoveries are made, free-riding upon the prospecting efforts of others. This produces the economics of a gold rush: whole territories may be neglected for many years, and then prospected in a surge following the first discovery. Both the period of neglect and the surge are inefficient. The period of neglect arises from a standard public goods problem: knowledge is a public good and so the outcome is a stalemate in which no one incurs the costs of acquiring knowledge. Eventually, a lucky strike occurs and this sharply increases the returns to search. In response, people crowd into search activities, lowering the chance of discovery for each other and driving down the expected returns to search. Entry may be limited if the size of the plots is set by government, but if plots are very small the standard rent-seeking outcome is that the value of the rents to be acquired through search is precisely offset by the costs that people incur. The rents from natural assets are thus dissipated. The finders-keepers rule thus produces a long period during which private returns to search are below their social value, followed by a short period in which they exceed their social value.

Research for inventions suffers from some of the same features as the finders-keepers rule in natural resources. This is one reason why public policy nowadays supplements private research with massive programs of public research on the more fundamental aspects of science: in effect fundamental science is equivalent to search in virgin territories that would otherwise remain unprospected for long periods.

Socially Constructed Ownership Rights: the Ideal

We now consider the ideal, such as might be achieved by a benign and competent government. This is, of course, a mythical entity: actual governments are composed of economic actors with private incentives. However, the ideal serves as a useful construct against which to benchmark all practical approaches to policy.

In what framework should a system for the management of the exploitation of natural assets be judged? The Utilitarian framework conventionally used by economists is open to philosophical challenge, most notably from a framework based on notions of rights: an outcome may be judged just because it respects a recognized right even if this results in a loss of utility. We consider how the ideal would vary according to Utilitarian and rights-based systems of ethics.

Utilitarianism gives equal weight to all people at the same level of income, regardless of their nationality and regardless of whether they are yet born. It assumes that marginal utility diminishes with income, so that a given total world income would maximize world welfare were it distributed equally. Within this framework both equity and efficiency are potentially welfare-enhancing.

The equity implication is that natural assets should be owned as equally as possible. This has both spatial and temporal implications. The spatial implication is that the larger is the geographic entity of government the more equal will be ownership. As we discuss in Collier and Venables (2008), because Africa is split up into so many nations, if ownership rights are accorded to nations then the per capita distribution of natural assets will inevitably be highly unequal. Citizens of Equatorial Guinea have radically more natural assets than citizens of Ethiopia despite the fact that both groups are citizens of Africa. By extension, if sub-national groups acquire ownership by virtue of their proximity to natural assets then the distribution will be even more unequal. For example, the tiny state of Sao Tome, Principe has recently discovered oil which privileges the

100,000 Africans who are citizens. However, the oil is closer to the tiny island of Principe than to Sao Tome, and predictably its 8,000 inhabitants have claimed ownership.

The temporal implication is that the benefits of natural assets should be spread equally over all future generations, this only being qualified to the extent that future generations are richer thanks to economic growth. Utilitarianism advocates such a distribution of all benefits, not just those from natural assets, but it has powerful implications for the management of natural assets. In particular it judges rapid depletion harshly unless offset by the accumulation of other assets: the utility of future generations is not being given sufficient weight.

Rights-based ethical systems assign the ownership of natural rights according to two broad principles, proximity and custody. The most common form of the proximity principle is that natural assets are owned collectively by the citizens of the country in which they are located. A variant is the rights of 'derivation' whereby sub-national government entities claim a privileged share of ownership. Some resource extraction companies operate according to a further variant whereby their corporate social responsibility to local communities is deemed to be broadly proportionate to their distance from the point of asset extraction.

Whereas the proximity principle concerns the spatial dimension of ownership, the custody principle concerns the temporal. Recall that from a perspective of rights, natural assets are distinctive: not having been built by human effort they do not naturally belong to anyone in particular. Further, they have only come through to the present generation because many previous generations have not depleted them. According to the principle of *custody* the current generation is merely the custodian of natural assets, not their owner. As such it does not have the right to deplete natural assets even if this would maximize its welfare at the expense of future generations.

Utilitarianism and rights-based ethical systems collide in respect of spatial inequalities but converge in respect of inter-temporal inequalities. Utilitarianism is unambiguous in

preferring pan-African ownership of natural assets to national or sub-national ownership. Yet a rights-based ethics judges nations to be legitimate entities for ownership. Nations reflect the maximum extent to which people have chosen to pool their autonomous powers: there is no world government because people have chosen not to have one and so a failure to respect national rights would be unjust. The current scramble for ownership rights in the Arctic and Antarctic reflects tensions between these two ethical systems, with self-interest largely determining which system a particular government supports. However, in respect of inter-temporal inequalities the rights-based approach reaches the same conclusion as the Utilitarian system based on a different argument: the rights of the future must be respected.

While economists are trained within a framework that has Utilitarian assumptions built into it, we do not wish to assert its superiority to the rights-based approach. The tensions between the two frameworks in respect of the spatial allocation of ownership have to be faced. Indeed, the very confusion may generate costs. Control, as opposed to ownership, unambiguously follows the proximity principle: those nearer to a natural asset have more control over it. If ownership is contested because of disagreements on ethical principles, then the behaviour of the controlling local interest may reflect anticipated changes in ownership.

While both frameworks agree as to inter-temporal ownership, they both conflict with the fundamental political principle of democracy. In a democracy the ultimate rules are that the government must be accountable to the electorate and that each eligible citizen should have one vote. Future generations do not and indeed cannot have votes. If voters wish to be selfish, plundering natural assets for the exclusive benefit of the current generation, the government lacks constitutional power to stop them unless granted it by voters. Given that the electorate is sovereign, the ultimate defence against the plunder of natural assets can only be that ethical standards, whether Utilitarian or custodial, are internalized by citizens. This can be brought about either through the top-down guidance of political leaders, or through the bottom-up mass movements which have periodically shifted ethical thinking.

Compensating for environmental costs

The discrepancies between Utilitarian, rights-based and democratic principles are particularly important in respect of environmental damage. Such damage is likely to be spatially concentrated and to accumulate over time, leaving particular localities with a highly adverse legacy once the exploitation is over.

The Utilitarian framework is weak on whether those who lose should be compensated. It is more concerned to investigate whether they could be compensated and still leave others better off. In contrast, the rights-based framework is likely to judge that those who lose must be fully compensated. Whichever of these frameworks is the more ethically appealing it is likely that politically unless a rights-based approach is adopted there is a risk of violent opposition. However, the democratic principle makes it particularly difficult credibly to commit that compensation will indeed be paid to future losers. A possible solution is for the resource extraction company to bear a residual responsibility: should a future government fail to provide adequate compensation, it would be liable. As discussed below, this gives rise to a potential time-consistency problem, but companies can have resort to commitment technologies which overcome it.

2.2 Efficient Incentives for Extraction

Inefficiency arises when the full consequences of an action are not internalized by the decision taker. The exploitation of natural assets is liable to be inefficient both at the discovery stage and at the production stage. As discussed above, efficiency at the discovery stage depends upon efficiency at the production stage. Lawlessness induces insufficient search because discovery does not confer any rights which enable the costs of search to be recovered. Conversely, the finders-keepers system produces excess search because discovery confers the entire rents from the natural asset. Production requires an initial investment followed by continuous decisions on the deployment of variable inputs. The initial investment creates the potential for a commitment problem: a sovereign

government has the power to revoke any undertaking. Any gap between ownership and control of variable inputs creates the potential for principal-agent problems.

Initial Investment and the time-consistency problem

The commitment problem is in one sense standard to all investment. However, it is more acute in respect of natural resource exploitation for three reasons. One is that the capital investment required for resource extraction is typically far higher than for other activities and so more is at stake. The second is that the investment is typically lumpy: a country has one particular exploitable asset which requires investment of a particular scale. Once this is made opportunities for further investment may be limited. This contrasts with most other investment where opportunities gradually increase over time so that an initial deal is implicitly enforced by the prospects of further deals. The third is that the taxation of the rents from natural assets is necessarily distinct from general corporate taxation, and so a post-investment increase in taxation can be ring-fenced to the sector without damaging the wider investment process. This creates a severe time consistency problem: because the sovereign government cannot credibly make a commitment not to increase taxation once the investment has been made, the investment is deterred. Whether there is a solution to this problem depends upon the capacity of the government credibly to limit its own power. For this it needs either an alternative power within the country, such as a credibly independent judiciary, or an external power such as an international court or a donor.

The time-consistency problem applies in reverse if there are end-costs to resource extraction. In particular, there are likely to be costs of cleaning up the environment once the natural asset has been removed. The company has an incentive to make promises on which it subsequently reneges. Now it is the company which needs a commitment technology for its promises to be credible. For example, the company could pay a proportion of its profits into an escrow account which could only be accessed once all liabilities had been settled.

Production and the principal-agent problem

The principal-agent problem is inevitable in the exploitation of natural assets because the ownership of the rents is separated from the control of the process of exploitation. The incentives for the agent who exploits the asset must therefore be aligned with those of the principal who owns it. Suppose that the government licenses a company to extract a natural asset which is owned collectively by citizens. The policy problem is to capture the rents from the natural asset while leaving the company with an incentive to extract the asset. How well this is done depends upon the design of the tax system. The problem arises because the company is making profits from two conceptually distinct processes, one being the capture of rents and the other being the return on its capital, skills, and risk taking. In other sectors of the economy companies only make profits from the second of these processes. If the government has complete information then the appropriate arrangement is to decompose the company's total profit into these two components and apply two distinct tax rates. An excess profits tax rate of 99% would be applied to the rents, and the normal tax rate used for other sectors would be applied for the remaining profits.

In reality, the government does not have complete information. Far from knowing how to decompose profits into their two components, even the true total profits of the firm are unobservable. The government observes only the figure reported by the company. Companies have many ways of concealing profits in costs and transferring them to other tax jurisdictions. Further, the shareholders of the company themselves face a principal-agent problem. In response to a high excess profits tax management may choose to raise costs at the expense of profits in order to improve the quality of life of employees. An alternative approach it to impose a royalty on resource extraction. The royalty is based not on profits but on either the physical quantity of the resource extracted, or upon revenues. An advantage is that both of these are far easier to observe than excess profits and so are less open to being gamed. A disadvantage is that royalties at some point diverge from the ideal excess profits tax sufficiently to introduce inefficiencies. In particular, if extraction costs rise as the natural asset is depleted, then extraction will

cease prematurely: extraction will be insufficiently profitable to pay the royalty and so the last potential rents will not be captured.

While reliance only upon a high excess profits tax would require more information than a government is likely to have, reliance upon a flat-rate royalty under-uses available information. For example, the government will have some geological information as to the depth and age of a mine, and whether an oil well is onshore or offshore. Tax and royalty rates can be differentiated according to such observable geological features. Similarly, as the world price of the commodity varies rents change more than proportionately so that royalty rates can be geared accordingly, possibly with a threshold price below which royalty rates are zero.

Setting royalty rates: auctions as systems of value revelation

In setting the tax and royalty rates the government is at a disadvantage vis-à-vis the resource extraction company with which it must reach agreement. It faces both an internal agency problem and an information problem. The agency problem is that the government must delegate the negotiation to a small group of its members. The company then has a strong incentive to bribe these individuals. To protect itself the government needs to adopt a process that is transparent: secret negotiations are ideally suited to corruption. The information problem is that the government has considerably less knowledge as to the true value of its natural assets than does the company. The true value will depend upon costs of extraction which are the core business of the company but not the government. Hence, if a deal is reached by means of a confidential negotiation between a company and the government it is likely to be to the advantage of the company.

A solution to both the agency and the information problem is to auction the extraction rights, inviting bids on the royalty rate that companies would be willing to pay. The rate could be conditioned on any observable features such as the basic geology, world price, and accumulated past volume of extraction. However, there is a trade-off between

complexity and transparency. Complexity would be necessary to get as close as possible to the ideal but unknowable excess profits tax, but it also introduces scope for corruption. A reasonable principle is that the proposed royalty structure should be sufficiently straightforward that from the geological information provided by the prospecting phase and assumptions about world prices, likely revenues can readily be estimated.

There is a case for conducting an auction in two stages, the first of which pre-screens bidders for their technical competence and financial credibility and limits the auction to around four bidders. If there are too many bidders the chance of success is too low to warrant serious investment in the information necessary to formulate a sound bid and instead participants may submit unprepared bids that are safely low, in the hopes of being lucky. If there are too few bidders then bids may be too low because of insufficient competition. As long as around four informed bidders are competing for the rights to exploit the natural asset the government does not itself need information: the true value is revealed through competition in the bidding process. A transparent auction process also protects again the agency problem: there is far less scope for corruption than in a secret negotiation. The design of auctions is complex and is a specialist field of research (see Cramton 2006).

Depletion

The rate of depletion of auctioned natural assets will be determined by the company that has acquired the extraction rights. However, the government can still often retain control of the overall rate of depletion of its natural assets by determining the pace at which rights are sold. We now consider what principles the government should apply in choosing the depletion rate.

If natural assets are left in the ground they will nevertheless earn a rate of return which depends upon the increase in the real price of the commodity. The pertinent economic principle here is the Hotelling Rule that over the long term the real price will rise at the world rate of interest. The explanation for the Rule is straightforward. If the current price

was sufficiently low that people expected it to rise more rapidly than the interest rate then extraction would be less profitable than leaving the commodity in the ground. The reduction in supply would force the current price to rise. Conversely, if the current price was already so high that people expected it to rise by less than the world interest rate the most profitable strategy would be to extract as rapidly as possible and this would drive the current price down. The prevailing price should therefore normally be that from which it is expected to rise at the world interest rate. If expectations are not systematically biased then the price should on average actually rise at this expected rate. In practice for long periods the price of natural assets has diverged from the Hotelling Rule. Nevertheless, the Rule provides our best long term guide to depletion decisions.

As discussed in our companion paper, the typical African country has a rate of return on capital that is higher than the world interest rate and so has an interest in rapid depletion subject to the constraint of being able to absorb the revenue productively. The typical resource extraction company operates on an even higher discount rate than the return on government capital and so is likely to deplete even more rapidly that the government would wish. Hence, if the government sells all the natural assets at once the overall rate of depletion is likely to be socially excessive. The optimal rate of depletion of the country's endowment should be determined by the absorption rate at which the marginal return to depletion equals the world interest rate. In turn, this rate of depletion should determine the rate at which the extraction rights are auctioned.

2.3 Efficient Incentives for discovery

The design of rent taxation is complicated by its effects on prospecting. Analogous to why fundamental science should be publicly funded, there is case for financing prospecting out of public funds. For example, the preparation of a cadastre would be a good use of aid money. However, since there are many other claims on limited public sector capacity to manage activities, an alternative is to rely upon private prospecting.

The challenge here is to separate as far as possible the generation of information from the process of conferring rights of extraction. Unless this is done, the prospecting company is acquiring rights of a highly uncertain value at the time when it acquires the rights to prospect. It does not know what it will find. Recall that a general problem with 'blue skies' private prospecting is the externality that accrues to subsequent prospectors and so the private return is depressed below the social return not only by the taxation of rents but by these gains to future neighbouring prospectors. Further, the initial prospector does not know the tax regime that will be put in place if it finds extractable assets. The government cannot plan for all eventualities and so may well not be able to pre-design an appropriate tax regime. Worse, whatever it designs may not be fully credible because of the time-consistency problem: if the regime turns out to be sub-optimal from the government's perspective, it has the power to change it unilaterally. All these factors depress the price that a prospector is prepared to pay for the right to prospect, given the reward structure that the prospector has the right to extract whatever is found subject to taxation. The deep discount on the price itself further undermines the credibility of any prior tax regime.

While the generation of discoveries should therefore be separated from their subsequent ownership, if the separation is total then the prospector has no incentive to discover anything: in effect, the company has been co-opted onto the civil service payroll. A compromise is for the company to receive the right to a tax-exempt share of the government royalty on any subsequent extraction. This aligns the interest of the prospector with that of the government: both now wish to maximize the value of the rents since each receives a slice of them. The geological information generated by the discovery process then forms the basis for informed bids in the auction process discussed above. The interests of the prospector and the government are now congruent in wishing to get the highest possible bid. The credibility of the geological information provided by the prospector will potentially be contaminated by this incentive. If the prospector is permitted to bid then the incentive is to understate the true value of the discovery: for this reason prospectors should be excluded from the auction of extraction rights. However, this leaves the prospector with an incentive to overstate the true value so as to encourage

high bids. Since bidders can anticipate this problem the outcome would not in fact be high bids, but bids that were too low because the quality of the information would be discounted. The government therefore has an interest in maintaining the integrity of the information by choosing is an established prospector with a reputation to protect.

The discovery process is potentially also suited to an auction. As with the auctioning of extraction rights, it would be in two stages. In the first, potential bidders would be selected on the basis of technical competence and financial credibility. Selected bidders would then compete on the basis of the lowest share of the royalty that would be accepted subject to undertaking a complete cadastre of a specified area.

Signature bonuses

In this proposed system the extraction process is decomposed into two stages: discovery and production. Each is made competitive through an auction in which bidders compete on royalty shares and rates. In this system there is no 'signature bonus' to be paid at the stage of awarding the rights to prospect. Signature bonuses are implicitly expensive since they discount future expected profits by all the uncertainties discussed above. They are equivalent to borrowing on highly uncertain prospects. As discussed in our companion paper (Collier and Venables, 2008a), only once the geological information has been generated is it appropriate to borrow in anticipation of future revenues. Assigning away rights to natural assets on the basis of whoever pays the highest signature bonus breaches medium term revenue maximization within the current generation, as well as both the Utilitarian and rights-based concern for future generations.

National companies

An alternative to the above approach is to establish a nationally owned company. There are two variants of this model. In the one the national company is given a local monopoly, while in the other the national company operates alongside private companies. These two variants have very different rationales. The state monopoly is appropriate

where the problems of designing an effective tax-cum-royalty regime for the private sector are judged overwhelming. However, if the state is not capable of taxing private activity *a fortiori* it may be even less able to manage the vastly greater range of activities involved in discovering and exploiting natural assets. In this eventuality it may be better to leave the assets unexploited until these deep problems of the public sector are addressed. The case for operating a national company alongside private operators is stronger: the rationale is that the government learns by doing and so generates better information for efficiently taxing the private sector.

Chinese-style contracts

The Chinese mode of resource extraction in Africa is distinctive: typically it is a package deal of resource extraction in return for infrastructure, supported by an element of aid. This is in sharp contrast with the OECD approach in which the sale of extraction rights is in return for money paid into the budget. If either this revenue or aid is used to purchase infrastructure these are distinct transactions. An evident disadvantage of linkage is that the government is locked into a particular form of expenditure with a particular supplier. However, locking in to the particular expenditure may in fact be advantageous. By doing so the government may avoid pressures from lobby groups to spend the money on consumption since the government does not appear in the budget, and it provides an effective commitment technology that locks future governments into investment of resource revenues. Further, by bypassing the normal systems of taxing and spending, the linked contract economizes on public administration. A well-motivated president or finance minister who is concerned about the agency problems that make the civil service dysfunctional may reasonably take the view that a bypass is efficient. However, as presently arranged the linked contract of resource extraction, infrastructure and aid is opaque: it is very difficult to evaluate the deal. This is not intrinsic to linked contracts but rather to the fact that currently China is the only actor offering such contracts. In principle, it would be feasible for governments to hold auctions on such packages, encouraging other actors to form extraction-construction-aid consortia which put in bids

alongside the Chinese. This would reveal whether the Chinese offers were good value while retaining their advantages.

2.4 Distinctive Issues for Renewable Natural Assets

Renewable natural assets, such as timber and fish, face all the issues pertinent for non-renewable assets, but have the added complication that they have a rate of return from a natural process of physical reproduction. The Hotelling Rule still applies, but now the expected change in price is the world interest rate minus this natural rate of return. Indeed, in one nineteenth century economic theory the relative price of renewable natural assets was assumed to be fixed so that the world interest rate was believed to be determined by the rate of growth of trees.

The natural rate of reproduction might itself be a function of the rate at which the asset is harvested. A high rate of off-take might reduce the capacity for renewal: the density of fish in the water becomes too low for efficient reproduction and trees are cut before they reach the age of maximum growth. For example, Robinson and Albers (2006) show that the Tanzanian system of game parks may inadvertently have made renewal more difficult. By creating privileged areas in which the rate of off-take is reduced to zero, the system has induced households depending upon income from renewable assets to increase their off-take in neighbouring areas. Instead of having a sustainable rate of off-take over the entire area, one part now has a wastefully sub-optimal rate of off-take and the other has an unsustainably high rate.

The key problems of renewable assets again stem from the unnatural ownership rights of natural assets. Forests and fish are often common pool resources and so liable to standard tragedy of the commons problem. While social conventions have successfully enforced limits on the rate of off-take, rapid population growth may have so increased the value of natural assets that the conventions break down. The attempt to replace local social conventions with national ownership and legislated control may accelerate this breakdown. As the Tanzanian example shows, controls may inadvertently worsen the

problem. An alternative may be to use national power to bolster local systems of control, for example by vesting legal ownership in the community.

While the issues are common with non-renewable resources, the consequences of misaligned incentives may be more severe, resulting in the physical exhaustion of an asset which it would be socially more valuable to harvest.

While in respect of non-renewable assets the Utilitarian and custodial principles largely coincide, in respect of renewable assets they are liable to diverge. The custodial principle implies that renewable assets *should* be renewed: the present generation has a responsibility to hand on renewable assets. In contrast, the Utilitarian principle argues that whether natural assets should be renewed is entirely analogous to whether physical assets should be renewed. It is normally a good use of resources to maintain physical assets, but at some stage, either due to changes in technology or relative prices, it usually becomes more cost-effective to let them depreciate. Similarly, with natural assets: at some stage the return on land is higher if it is switched from forest to other uses. The Utilitarian attaches no premium to the preservation of the world as it is.

This disagreement is distinct from arguments about global externalities from renewable natural assets. Switching land from natural forest to other uses releases carbon and reduces bio-diversity, both of which are global public bads. On such matters the Utilitarian reaches the same conclusion as the custodial principle, though for different reasons. However, these global public bads involve both inter-spatial and inter-temporal redistributions of welfare. The present local population may gain from changing land use whereas the future global population will lose. Even if the future global population loses more than the present local population gains, some system of compensation is needed both on the principle of rights and on practical political considerations.

3. Practice: Ownership, Extraction and Discovery

While the main purpose of the paper is analytic, we briefly review recent African experience.

3.1 Ownership

In Africa since Independence the formal ownership of natural assets has been lodged with national governments, or occasionally with a sub-national government. Disputes about the assignment of rights between national and sub-national units of government have no 'natural' resolution, but unless resolved will have costs arising from uncertainty as discussed below. More drastically, at times governments have not been able to exercise effective control on the ground.

Induced violence

There is reasonable evidence that the presence of valuable natural assets increases the risk of rebellion. The most convincing evidence is provided by the link from changes in world prices to the risk of rebellion since prices can reasonably be taken as exogenous In work as yet unpublished, Besley and Persson find such a result. Evidence based on the value of natural resource revenues is consistent with this result (Collier, Hoeffer and Rohner, 2009). One reason for the link is that resource extraction makes rebellion easier. By controlling the territory in which such resources are located rebel groups are able to finance their revolt. The diamond-financed wars in Sierra Leone and Angola are important examples. A second reason is that the capture of valuable natural resources might motivate the rebellion. A variant is that the discovery of such resources might increase the attraction of regional secession. There is some evidence that the Biafran secessionist war in Nigeria was related to the discovery of oil in the South East. This appears to have switched the Northern Region from seeking its own secession to wishing to maintain the Federation. The potential secession of Southern Sudan may also be related to the oil which, though only recently tapped, has been known about for decades.

Since many of the costs of rebellion do not accrue to rebels, if natural assets induce efficient rent-seeking rebellion the overall cost will exceed the value of the assets. In this case the possession of natural assets will be immizerizing. There is thus a strong case for public action to sever the link from natural assets to rebellion. In response to conflict diamonds the sector established the Kimberley Process which has made it considerably more difficult for illicit exploitation to reach the market. Currently, there is no equivalent to the Kimberley Process for oil. However, President Yar Adua has proposed such a scheme and it would be technically feasible. As with the Kimberley Process, by making the stolen commodity more difficult to sell, it would reduce the incentive to plunder.

Whereas rebellion is militarily demanding, since the state is being openly challenged, theft requires a lower threshold of organized violence. The objective is confined to looting the natural asset, rather than including an attempt to build a significant political organization and standing military capability. The main current example of such activity is oil 'bunkering' from Nigeria. While the Delta region of Nigeria has had a long history of political opposition, including rebellion, oil bunkering has evolved into something much closer to crime than to political rebellion. Oyefusi (2007) surveyed 1,500 young men in the Delta, trying to discover what made some more prone than others to being recruited into violence. The key characteristics bore little or no relation to politics: neither poor social provision in a locality, nor a sense of grievance, was related to recruitment. Rather, recruitment was concentrated among those with little education and no dependents: these were the cannon fodder for criminal organizations.

Whereas both rebellion and theft require substantial military capability, a third way to contest state ownership is by the mass assertion that the territory in which the valuable resources are located is a 'commons', permitting free or near-free access to the proximate population. This is particularly important for those resources which do not require significant investment in order to be exploited and so are suitable for exploitation by artisans. An important example is the mining of alluvial diamonds in Sierra Leone. Until the 1950s the rights to discover alluvial diamonds were sold as a monopoly by the government. De Beers, the company which held the monopoly rights from the

government, defended its rights by physically excluding other potential miners from its territory. By the end of the 1950s it became too costly to maintain the exclusion, partly because local politicians encouraged people to invade the territory, so that it became a common pool resource.

Ownership through hold-up

Sometimes the exploitation of a natural resource requires an input which is owned by a monopolist. For example, resource extraction may require a monopoly form of transport such as a railway line. In this case, if the ownership of the railway line is separated from that of the natural resource, the railway can subject the resource extraction company to 'hold-up', capturing some of the rents. While superficially the separation of railway ownership from extraction ownership might appear to introduce competition, in fact it mere shifts the rents. Such shifting of the rents is undesirable because they thereby escape the tax-cum-royalty system: a railway company will be subject only to normal corporate tax rates.

Uncertain tenure

A significant problem has been that rights are temporary or uncertain, thereby creating an incentive to those who have current control to strip the natural asset. For example, the oil in Southern Sudan is currently shared with between the Northern and Southern governments on a revenue-sharing formula. In 2011 there is to be a referendum on independence for the South, and this creates uncertainty in the North as to whether its share of ownership will continue. The government is reported to be accelerating extraction of oil, even to the point of damaging the wells. This is consistent with privately maximizing responses to the anticipation of possible loss of ownership. A second example is the behaviour of the transitional government of DRC, which sold off extraction rights at generous prices during its brief tenure of office. A seemingly different type of example is the consequence of insecure tenure in smallholder agriculture. Goldstein and Udry (2006) find that in Ghana effective rights to tenure are linked to

usage so that farmers are reluctant to leave land fallow. As a result the soil is over-exploited, resulting in a loss to GDP of 2%.

3.2 Extraction

As with other assets, natural assets can finance consumption both by generating income and by being depreciated. Whereas it has long been conventional to allow for the depreciation of physical capital, the extension to natural assets is only recent: it is termed Green Accounting. Reconstructions of national accounts for African economies taking into account the depreciation of natural assets have concluded that on average since Independence the region has been depreciating its natural assets more rapidly than its gross income has been increasing, so that even the appearance of modest growth is illusory: African standards of living have depended upon running down natural assets.

3.3 Discovery

Although Africans have 50 percent more land per person than citizens of the OECD, the value of the known natural sub-soil assets of that land is radically lower. A global inventory of sub-soil assets as of 2000 finds that in Africa the typical square kilometre contains known natural assets of only $25,000 in contrast to $125,000 in the OECD.[1] As noted in the introduction, when two such massive land areas are compared it is unlikely that the true average value of sub-soil assets should be so divergent. The most likely explanation is that there are far more sub-soil assets in Africa that are yet to be discovered. Indeed, since the OECD countries have been extracting their natural assets commercially for far longer than Africa a reasonable expectation might be that Africa has more of them left in the ground that the OECD. The major implication is that for Africa the discovery process is going to be very important. Assets worth several times those currently known probably await discovery. It also perhaps suggests that to date the discovery process has been inhibited.

[1] We would like to thank Anke Hoeffler for calculating this from World Bank data, World Bank (2006).

3.4 *Renewables*

Carbon emissions are a renewable global public bad which now has an international mechanism for compensation, the Clean Development Mechanism (CDM). Potentially Africa could receive income by refraining from emitting carbon. The most pertinent current opportunity would be to reduce or reverse deforestation. However, in order to be eligible for the CDM the restraint on carbon emissions must be verifiable and to date this has advantaged those countries and activities, notably Chinese industry, in which verification is relatively feasible. As a result, Africa has yet to benefit significantly from the CDM. Even if it were to do so, the finance for CDM might well in practice be a diversion from existing aid budgets (Collier, Conway and Venables, 2008).

4. Conclusion

The effective exploitation of natural assets is important for Africa's economies. In one dimension the rents from extraction make process less difficult than a competitive activity such as manufacturing: it is not necessary to be efficient in production in order to prosper. Yet the socially efficient exploitation of resource rents is complex in different dimensions that are illuminated by the framework of the principal-agent problem. Within this general framework, the design of an efficient discovery process benefits from insights from the economics of information: resource discoveries are somewhat analogous to scientific discoveries. The design of an efficient capture of rents from resource extraction, and solutions to the clean-up problem, are fundamentally about the time-consistency problem and the need for commitment technologies.

The good news for Africa is that high commodity prices have massively increased rents from the extraction process, while the value of the natural assets awaiting discovery is quite likely to exceed those already discovered. To date neither extraction nor discovery have been socially efficient: the application of economic principles is likely to have a high pay-off.