

**Laws and Codes for the 'Resource Curse'**

Paul Collier

Oxford University,

September, 2007

## 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 UN 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 throws 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 mis-aligned 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 mis-diagnose 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: the 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 anti-bribery 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 co-integration 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 twenty years the effects are often highly adverse. Simulating the current commodity booms in the fourteen major African commodity exporters, we find that the long term effect is to reduce output relative to counterfactual by around 25%. The resource curse is a reality.

The adverse long term effects are confined to price booms in non-agricultural commodities. A likely explanation for this is that agricultural booms accrue predominantly to farmers who usually use their windfalls sensibly. In contrast, non-agricultural booms usually accrue predominantly as government revenue. The current commodity booms are non-agricultural 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, multi-faceted 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 wave 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 wave 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%. 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 than 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 UK. 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 mis-estimate 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 extend 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 new that many of its members would be out of government after the post-conflict elections, scheduled for 2006. In the preceding three 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 thirty 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.<sup>1</sup>

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 time frames that need to be taken into account in reaching this decision, one long term, and the other medium term.

The long term time frame concerns depletion. The extraction of non-agricultural 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.

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<sup>1</sup> Here I rely upon the opinion of Eric Bergof, Chief Economist of the European Bank for Reconstruction and Development.

The medium term time frame 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 re-pricing. 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 re-tendered 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. While 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 critique 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 anti-bribery 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-à-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 non-auction 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.

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