
FDI in Extractive Industries

In the annals of development literature, a rich natural resource base was originally considered a valuable asset, and the arrival of foreign firms with capital and technology to invest in extractive industries offered welcome benefits to the host country. In the contemporary period, the presence of oil, natural gas, diamonds, gold, copper, iron ore, coal, nickel, bauxite, and other minerals is more likely to be characterized as a “curse,” with foreign investors accused of complicity in host-country corruption, authoritarian rule, and civil strife, as well as of being responsible for environmental damage, suppression of indigenous peoples, and the more mundane overvaluation of the exchange rate (Dutch disease).

What is the impact of FDI in extractive industries on a host developing country? Pursuing an answer to this question here establishes the framework for each of the sections to follow—there is no single outcome associated with FDI in extractive industries. Instead, the impact from FDI in natural resources can be quite positive, or extremely negative, depending on the policy framework of the host government and the broader institutional setting within which FDI takes place. In other words, the impact depends on a broader institutional setting over which the external multinationals themselves may exercise some considerable influence, for good or ill.

The Resource Curse and Dutch Disease

The history of FDI-led exploitation of mineral resources in the Democratic Republic of the Congo and of oil in Nigeria, Angola, and Equatorial Guinea, among other places, paints a vivid picture of misappropriation of extractive industry revenues (Shaxson 2007, Le Billon 2005, Bannon and Collier 2003).

FDI in extractive industries has propped up dictatorial regimes, fueled rebellions and civil wars, undermined reformers, and buried indigenous businesses in highly distorted rent-seeking activities. Corruption and lack of transparency have often been the norm, whether in family-run domination of revenues as in Equatorial Guinea, or cascading levels of revenue diversion as in Nigeria, where more than \$1 billion has been lost each year until recently.

Evaluating the comparative economic performance of countries over time, Sachs and Warner (2001)—following in the tradition of Auty (1994)—present gloomy findings of an aggregate nature, arguing that resource-rich countries tend to suffer from lower growth rates than other less well-endowed nations. Are such dismal outcomes inevitable?

In reviewing the historical record, subsequent investigations point out that the Sachs-Warner-Auty low-growth correlation is very sensitive to the time period chosen and find many examples of individual countries that have fared well.¹ The country experiences of Botswana, Chile, Argentina, Colombia, Peru, Brazil, Indonesia, Morocco, and Malaysia—alongside Australia, Canada, Norway, Sweden and the United States—reveal a positive contribution from exploitation of abundant natural resources, without large-scale corruption and institutional failure being the inevitable result.

Before the financial crisis erupted in 2008, government revenues in Botswana from taxes on production of diamonds, copper, and nickel reached more than \$1.8 billion on an annual basis and flowed through to fund education, health, and infrastructure projects with a high degree of transparency, accounting for some 40 percent of total public expenditures. In Chile, the comparable figure from taxes on privately owned copper production alone was \$6.5 billion, or 14 percent of all government outlays. Between 2003 and 2008, output from the largely foreign-owned extractive sector climbed above 62 percent of all exports from Peru, 44 percent from Tanzania, and 42 percent from Ghana.

The relevant question for contemporary developing- and developed-country authorities, as well as for multilateral lending agencies and international civil society groups and NGOs, is how to promote FDI in the extractive sector in ways that strengthen good governance as well as generate economic growth.

The cluster of problems captured under the rubric of Dutch disease arises when rapid expansion in the oil or mineral sector draws resources from other parts of the economy, raises wages, and causes the currency to appreciate (Roemer 1985; Lewis 1989; Brahmhatt, Canuto, and Vostroknutova 2010). The boom in natural resource exploitation reduces the competitiveness of other domestic industries, prevents diversification, and leaves the country vulnerable when oil or mineral production tails off. Here again the empirical record of exposure to the “disease” is mixed, and the actual outcome depends

1. See Lederman and Maloney (2003), Wright and Czelusta (2004), Collier and Goderis (2007), Stevens (2003), and Brahmhatt and Canuto (2010).

on public-sector restraint in allowing the economy to overheat, and on prudent expenditure of the revenue buildup (Davis and Tilton 2005, Davis 1995). Over long periods of time, both Chile and Indonesia, for example, husbanded resource receipts for use in countercyclical fashion and deployed them to build infrastructure, strengthen human capital, and support the growth of new economic activities—quite at variance with the pessimistic predictions of the Dutch disease model (ICMM 2007, Glassburner 1988). In Botswana, successive governments sterilized mining revenues, invested a portion abroad almost every year, and smoothed out social expenditures on infrastructure and health (such as coping with the AIDS epidemic) (Jefferis 2009, Norberg and Blomström 1992, Criscuolo 2007). Botswana’s foreign exchange reserves are equivalent to about 80 percent of GDP and have enabled the country to earn an investment-grade credit rating from Moody’s and Standard & Poor’s.

As for the ultimate fear of economic collapse when the resource base runs out, the last half century shows only one case—Tunisia—in which the country experienced what might be considered a collapse of extractive-sector exports (Davis 1995). Like Chile and Indonesia, farsighted devotion of resource revenues to modernize Tunisian infrastructure and upgrade the skill level of the workforce allowed a relatively successful post-natural-resource transition.

The literature reveals no single path or magic ingredient that leads to comparatively efficient, corruption-free administration of natural resource industry revenues. In Botswana, the beef-exporting tribal elites demanded trustworthy national stewardship of mineral tax receipts, from independence onward, in order to generate expenditures on roads, vaccines, veterinary offices, and fences to serve their needs (the Lomé Convention gave them access to the high-priced European Union market) (Criscuolo 2007, Good 1992). Governments and civil service gained a reputation for being largely noncorrupt and reasonably efficient (Acemoglu, Johnson, and Robinson 2003; Good 1994). The Transparency International Global Corruption Perceptions Index awards Botswana the highest mark in all Africa in its most recent surveys (Transparency International 2009). In Chile, left-wing, right-wing, and centrist political leadership all ensured accountability for revenues generated in the copper industry.² World Bank and Transparency International control of corruption indicators have consistently placed Chile at the top of Latin America (Transparency International 2009).

If the consequences of FDI in extractive industries are highly contingent on the policy environment within which the investment takes place, what steps can host-country authorities and the other players involved take to ensure a more favorable outcome? Fighting corruption and ensuring transparent revenue flows is the place to start.

2. General Pinochet’s personal corruption involved arms sales, not misappropriation of copper revenues. See US Senate (2004).

Combating Corruption and Ensuring Transparent Revenue Flows

Until 1997, bribery and corrupt payments were considered a normal part of doing business in the developing world, and many developed countries allowed payoffs for favorable treatment to be deducted from income as a routine business expense (Center for Global Development 2010). The United States was the exception, making the payment of bribes abroad a crime through the Foreign Corrupt Practices Act (FCPA) of 1977. Then, in 1998, the Organization for Economic Cooperation and Development (OECD) adopted the Convention on Combating the Bribery of Foreign Public Officials in International Business Transactions, which requires member states to pass domestic legislation criminalizing corrupt payments. It came into force the following year. OECD members perform peer-review audits of each others' legislation and make recommendations to improve performance. By 2010, 37 of 38 parties to the OECD convention had completed Phase II audits.

But FDI in extractive industries—as well as FDI in infrastructure, as examined in the next chapter—is rated in the Transparency International Bribe Payer's Index as the sectors (along with defense and construction) where corrupt payments are most likely to take place. There are two reasons for this: First, significant gaps have been discovered in both the OECD convention and the FCPA that enable companies from OECD countries to provide what by any commonsense definition must be considered bribes without fear of criminal prosecution; and second, FDI in oil and minerals from non-OECD members (such as China, Russia, and India) has pushed vigorously into the developing world.

What are the gaps in the OECD convention and associated national anti-corruption legislation, including the US FCPA, and how can they be filled?

Home-country legislation written to comply with the OECD convention forbids any investor from that state from paying a foreign government official to obtain favorable treatment or securing an exception to host-country laws and regulations. So does the US FCPA, adding a prohibition against payments to political parties or their administrators as well as to public officials. Both the OECD convention and the FCPA also ban payments to “third parties” if the payment takes place at the direction (or with the agreement) of the official and/or ultimately ends up in the possession of the official (OECD 2007, 2008).

What became clear over the course of the 1990s with FDI in both extractive industries and infrastructure is that some OECD-based companies were obtaining investment concessions and favorable treatment to operate their projects by forming partnerships with family members, business associates, and personal friends of the leaders of developing-country host governments (Wells and Ahmed 2007, Moran 2006). The parent multinationals loaned capital to these special partners to enable them to take equity positions in the partnerships, and then paid them a dividend more than adequate to service

the debt (thus covering all interest payments while allowing them to pocket additional funds each year over the life of the loan). These special partners put no resources of their own at risk, had no responsibility to pay back the loans if the projects were unsuccessful, and performed no discernible services to justify their partnership status other than enabling the investor to win the concession and enjoy favorable treatment. In some cases, the dividends to cover the interest owed, plus extra money, began to flow to the partners even before the projects came on line, let alone began to operate profitably.

From a technical financial point of view, these partnerships constituted “deferred gifts”—the loan for the equity being paid off over time—plus an extra payoff (the difference between the dividend and the debt service) to be pocketed by the special partner on a monthly or semiannual basis. These arrangements were more damaging than if the foreign investor had simply deposited a bribe to a family member, business associate, or personal friend of the leader in an offshore bank account, since the partner had a long-term interest in ensuring that the favorable treatment, lax regulation, or absence of host-country oversight lasted throughout the lifetime of the project. International oil companies in Equatorial Guinea set up partnerships with spouses of children of the ruling family and other favored business associates (US Senate 2004). International investors elsewhere found sons, daughters, military associates, and golfing buddies.³

The reason these partnerships did not place investors in legal jeopardy is that the payoff did not flow to the officials directly, nor was there any evidence—at least no paper trail—that the payments were made at their direction or even with their explicit agreement. US, European, and Japanese companies employed these kinds of partnerships. In the case of US companies, some international investors vetted the arrangements with independent legal counsel, and then duly reported them to US government agencies, including the Securities and Exchange Commission (SEC) and the Overseas Private Investment Corporation (OPIC). When Louis T. Wells, Jr. asked the US Department of Justice why an Indonesian partnership involving the daughter of the president did not violate the US FCPA, he received an email response: “[W]hether a series of payments, or a loan, or a deferred gift would be a violation of FCPA would depend upon whether it occurred at the direction of the official, or other public official, and whether some form of benefit inured to the official.”⁴ There was no direct evidence that equity shares financed by the foreign company for President Suharto’s daughter benefited him directly.

3. According to the Approved Judgement of the Honourable Mr. Justice Cooke between Kensington International and the Republic of Congo in the High Court of Justice, Queens Bench Division, Commercial Court, Royal Court of Justice, Strand, London, November 28, 2005. See Wells and Ahmed (2007).

4. Email from Philip Urofsky, Special Counsel for International Litigation, Fraud Section, US Department of Justice, to Louis T. Wells, Jr., August 6, 2002.

The route to closing this loophole is for the OECD Anti-Corruption Working Group to adopt the widely accepted OECD Guidelines for Multinational Enterprises as the new standard for permissible/impermissible behavior, and to issue an “interpretive statement” that Phase III examination of members will incorporate this standard.⁵ The OECD guidelines state that “enterprises should not, directly or indirectly, offer, promise, give, or demand a bribe or other undue advantage to obtain or retain business or other improper advantage. Nor should enterprises be solicited or expected to render a bribe of other undue advantage. In particular, enterprises should not offer, nor give in to demands to pay public officials or the employees of business partners, any portion of a contract payment. They should not use subcontracts, purchase orders or consulting agreements as a means of channeling payments to public officials, to employees of business partners or their relatives or business associates.”⁶ These guidelines do not make prohibition of payments dependent upon whether they occur at the direction of, or with the consent or agreement of, the public official.

OECD Phase III audits to confirm that member countries’ antibribery legislation conforms to the guidelines will be slow, but the signal to international investors from OECD states about what will make them liable to prosecution in the future will be clear. To ease acceptance of this new perspective, OECD-headquartered companies arguably have understood, at least in principle, that they should be in compliance with these OECD guidelines as quoted above for decades.

If these loopholes are eliminated for OECD investors, how can a level playing field be created in which non-OECD investors, such as those from Russia, China, India, and elsewhere, become subject to similar constraints on the use of corrupt payments?

Creating a level playing field will be a formidable undertaking, but a trend has emerged in investor-state arbitrations that may contribute to success. Independent tribunals have shown themselves to be increasingly reluctant to enforce contracts where there is credible evidence that such contracts were secured by corrupt means (Center for Global Development 2010). It would have a forceful deterrent effect if international investors from non-OECD states were to face the prospect that they might not be able to have their billion-dollar property rights recognized by tribunals operating under provisions of the International Centre for Settlement of Investment Disputes (ICSID) or the United Nations Commission on International Trade Law (UNCITRAL) at any point over the life of their projects if those projects were secured via corruption. Outside powers cannot dictate how investor-state panels behave, and arbitrators do not have to consider precedents set by other tribunals (there is no stare

5. Hearings of the OECD Working Group on the Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, Paris, June 16, 2008.

6. The OECD guidelines are available at www.oecd.org (accessed on February 1, 2011).

decisis). But strong endorsement of this trend by OECD member states would reinforce the likelihood that panels would refuse to enforce contracts obtained by corrupt methods; at the least, this possibility would alter the calculation on the part of investors who might otherwise be counting on arbitrators to uphold their property rights when those rights are subject to dispute.

Alongside reforms of OECD laws against corruption and more selective enforcement of contracts by arbitral panels, a key ingredient to ensure favorable outcomes from FDI in the extractive sector is enhanced transparency for revenue streams. Securing this objective has become a model for demonstrating that extramarket forces are required to enable developing countries to enhance the gains and avoid damages from FDI. At the urging of civil society groups such as Publish What You Pay and Transparency International, the British government established the Extractive Industries Transparency Initiative (EITI) at the World Summit on Sustainable Development in Johannesburg in 2002. An Oslo-based independent institution supported by most OECD states, the EITI has as its operating concept for investors in the oil, gas, and mining industry to publish all payments they make in any given country, and for host governments to publish all payments they receive, in a form that can be understood, examined, and reconciled by independent auditors, citizens, and parliamentarians.⁷ As of mid-2010, 32 developing countries in Africa, Asia, and Latin America had signed up for EITI candidate status. The EITI secretariat put in place a program to validate the performance of participating countries, with 19 countries having been scheduled to complete validation before the end of 2010.

To complement the EITI, the World Bank has launched an EITI++ to provide technical assistance for all aspects of resource management, from solicitation of tenders to macroeconomic management of revenues.⁸ A World Bank Trust Fund helps fund capacity-building among host officials, legislators, and local civil society entities as do efforts by NGOs such as Publish What You Pay and Revenue Watch. Transparency International, Oxfam, and Global Witness, among others, help keep watch over outcomes (Ravat and Ufer 2010, World Bank 2010).

Developed-country governments and multilateral lending institutions—including the Inter-American Development Bank (IDB), Asian Development Bank (ADB), African Development Bank (AfDB), and European Bank for Reconstruction and Development (EBRD), as well as the World Bank—can play a powerful role in promoting developing-country participation in the EITI, since host-government and international investors often seek public-sector guarantees, finance, and political-risk insurance for extractive industry projects. The ADB endorsed the EITI on February 28, 2008 and the IDB on August 5, 2009. The EBRD claims to support the EITI, but its Energy Operations

7. See EITI website at www.eiti.org (accessed in April 2010).

8. See EITI++ at <http://web.worldbank.org> (accessed on February 1, 2011).

Policy (successor to its Natural Resources Operations Policy) does not mention or discuss the EITI with regard to EBRD programs in Russia or in any other member state.⁹

As shown by preparations for exploitation of new oil discoveries in Ghana, the need for external help to ensure effective host-country governance over the extractive sector is not limited to the poorest states—an observation that will be important later in discussing whether the World Bank and regional development banks continue to have a role to play in middle-income developing countries. The government of Norway and the IMF, World Bank, and Oxfam, among others, helped Ghana over the course of 2010 to prepare for management of oil income.

But, as argued earlier, to be effective, international companies of all nationalities—including those that originate in states not known for vigilance about corrupt payments—must be included. Some 41 of the largest oil, gas, and mining companies have committed to support the EITI, but most still oppose company-by-company reports of payments to the government (they want only anonymous aggregation of revenue flows to prevent scrutiny of their particular fiscal contributions). This issue has been brought to a head by the passage of the US Dodd-Frank Wall Street Reform and Consumer Protection Act that President Barack Obama signed into law in July 2010. This act includes a provision that requires oil, gas, and mining companies registered with the SEC to publish how much they pay to foreign countries and the US government in their annual reports.

Many US companies argue that this reporting requirement will put them at a competitive disadvantage in relation to investors of other nationalities. Ken Cohen of ExxonMobil argues that “[t]he amendment requires U.S.-listed companies to essentially turn over the competitively negotiated terms of their proprietary contracts to all foreign competitors who don’t have U.S. SEC reporting requirements—providing no protection for confidential information. At a time when the U.S. is concerned about international competitiveness, this would create a new competitive disadvantage.”¹⁰

Proponents of the reporting requirement counter that the concern about competitive disadvantage is overblown. The Publish What You Pay Coalition states that the SEC requirement “will apply to hundreds of companies, including 90 percent of the world’s largest internationally operating oil and gas companies, as well as eight of the world’s ten largest mining companies. The Hong Kong stock exchange, which carries a number of Asian majors, enacted similar rules this year and the International Accounting Standards

9. See Energy Operations Policy at www.ebrd.com (accessed on June 21, 2010).

10. Ken Cohen, “A Less than Transparent Approach to Transparency in Congress,” ExxonMobil Perspectives blog, July 14, 2010. www.exxonmobilperspectives.com/2010/07 (accessed on February 1, 2011).

Board (IASB) is considering a rule change to make disclosure of payments to governments standard in the 110 countries which use IASB rules.”¹¹

The Revenue Watch Institute reiterates the point: “Of the 32 largest internationally active oil companies, 29 are registered with the SEC or have other SEC reporting requirements and would be covered by the new law. Eight of the world’s 10 largest mining companies are also registered with the SEC and could be covered, too.”¹²

Moreover, all oil, gas, and mining companies that operate in the United States make comparable disclosures to the Interior Department every month. And some extractives companies already publicly disclose all payments made to foreign governments as a normal part of doing business—including US-based Newmont Mining, Canada-based Talisman Energy, and Norway’s Statoil. All extractives companies in countries implementing the EITI already make public their payments to the governments of these countries. Companies need to keep accurate books and records to comply with foreign and US tax filing requirements and the FCPA, among other measures.

The concern about potential competitive disadvantage caused by individual company-by-company reporting can be matched against the empirical record. The Extractive Industry Transparency Reports published in Ghana, Guinea, Liberia, Mongolia, and Nigeria all identify how much each company pays in income taxes, royalties, bonuses, and other payment streams. BP has chosen to disclose the company’s individual EITI reports in Azerbaijan, even though EITI findings are published there only in aggregated form. Anglo American discloses payments to governments in the 12 countries that host the company’s largest operations.

Sefton Darby analyzed survey data related to individual company disclosure and found instances that document commercial disadvantage are extremely minor or nonexistent (Sefton 2009; Ravat and Ufer 2010, 3–4). EITI reporting does not require disclosure of proprietary data such as geological information or the operational costs and profitability of individual operations. It is extremely difficult to glean commercially useful information, such as profitability of individual operations, simply by looking at payments to government. Not one company involved in disaggregated payment disclosure has subsequently had its contract cancelled or renegotiated as a result.

But some resource investors that do not register in the United States may nonetheless be able to achieve competitive advantage through their ability to make unreported payments associated with their extractive industry concessions. This presents an opportunity to the world community. The logical conclusion is just the opposite of what conventional industry wisdom asserts: Company-by-company reports will ultimately benefit the most conscien-

11. See the Publish What You Pay website at www.publishwhatyoupay.org (accessed on October 29, 2010).

12. See Revenue Watch Institute website at www.revenuewatch.org (accessed on October 29, 2010).

tious investor by forcing all participants (including those from Russia, China, India, and elsewhere) to provide transparency on an equivalent basis. In their own self-interest, socially responsible investors should support company-by-company reports. Socially responsible investors can also play a powerful role in persuading new hosts to join wholeheartedly in the EITI process. Working together, international extractive companies and their home governments—led by the United States—should work to make the EITI mandate that all EITI-compliant countries require individual company-by-company reporting, instead of opposing this.

The best outcome from this SEC reporting requirement would be to set in motion the same sequence that followed the original passage of the FCPA (hopefully more rapidly). US investors at first objected to being put at a competitive disadvantage by the FCPA, but then—when Warren Christopher became secretary of state and orchestrated the effort—pushed for adoption and ratification of the OECD Convention on Combating Bribery. International corporate support for all EITI countries to require individual company-by-company reporting would force non-OECD investors to comply, thereby leveling the playing field for OECD and non-OECD investors alike.

Promoting FDI, Ensuring Contract Stability, and Assisting Host Tax Collection

FDI in extractive industries enjoys a more extensive history of official support from home-country governments and multilateral lending agencies than FDI in any other sector in part because of the long-standing needs of wealthy countries for external sources of petroleum and minerals, the political-economic clout of the investors in home-country decision making, and a well-recognized market failure that Raymond Vernon (1971) first called the “obsolescing bargain.” This bargain reflects abrupt changes in negotiating strength between foreign companies and host authorities over the lifetime of FDI in the extractive sector. Natural resource investors begin with quasi-monopolist control over the expertise and capital required to find and develop hydrocarbons or other raw materials, without which developing-country hosts are virtually incapable of knowing (let alone exploiting) the extent of their subsoil wealth. At the same time, natural resource investors face substantial risk and uncertainty about what oil or mineral reserves can be found and whether untried sites might ultimately prove profitable. International natural resource investors insist therefore that their initial concessions and contracts be favorably structured to reflect their powerful position and to compensate them (and their financial backers) for the associated risk and uncertainty.

Host authorities agree to frontloaded favorable treatment for foreign investors—even if there is no corruption involved—because the alternative is often to do without the investment. However, as soon as international companies commit capital, and if the projects turn out to be successful, the bargaining relationship changes profoundly. Investment is sunk in the ground

(and ports and pipelines) and risk and uncertainty dissipate. Once launched, the foreign investor cannot credibly threaten to withhold crucial inputs or withdraw. In contrast to FDI in manufacturing and assembly, where foreign firms maintain negotiating strength vis-à-vis host authorities by controlling technology and marketing (see chapter 4), in extractive industries and infrastructure host authorities are in a position to take advantage of the “hostage effect” and unilaterally change the terms of the initial investment contracts. If they do not, their rivals or successors will.

This propensity to alter contractual terms is sometimes referred to as “opportunistic behavior” on the part of host officials, but Vernon (1971) recognized the dialectic as a more basic structural flaw that private parties are not able to correct on their own. International investors try to compensate for later vulnerability by making initial contract terms yet more favorable; this makes subsequent demands for readjustment something of a self-fulfilling prophecy.

Extractive-sector investors have gone so far as to conclude that there is “an inverse relationship between the generous fiscal incentives offered to investors and the stability of the fiscal regime. Where low tax rates are offered to attract investment, it tends to be more likely that subsequent political pressure results in a realignment of fiscal regimes in later years, when mining operations become productive. This has led to many companies emphasizing that from their perspective, the *optimal* level of taxes does not equate to the *minimum* level” (ICMM 2009, 57, emphasis in original).

Private political-risk insurers can offer breach-of-contract coverage to ensure that foreign investors are compensated when their initial agreements are unilaterally changed. But such coverage is costly, and the revelation that a particular project is insured may mean that the investor is singled out to be squeezed.

As in other forms of strategic negotiation, the inability of host governments to make credible commitments that they will honor their promises constitutes a fundamental market failure (Schelling 1966, Williamson 1985). Instability in contract terms—even if no formal nationalization takes place—leads to suboptimal levels of investment from the point of view of both investors and hosts, and the world community more broadly.

This market failure provides a rigorous justification for national and multilateral guarantees, finance, and political-risk insurance. Host governments sign an agreement with the World Bank Group (including the International Finance Corporation [IFC] and the Multilateral Investment Guarantee Agency [MIGA]), the ADB, IDB, or AfDB, or with public-sector agencies such as the US Overseas Private Investment Corporation (OPIC) or the UK Export Credits Guarantee Department, specifying that investment disputes will be submitted to binding international arbitration, and the decisions respected by the host, or else the guarantor can pursue the host for remedy. Since developing-country governments do not want to damage relations with these institutions, the coverage the latter provide is much more potent than what commercial political-risk insurers present. Beyond offering

compensation to the investor, national and multilateral political-risk insurers supply deterrence against the workings of the obsolescing bargain. A host government in a developing country becomes capable not just of making credible commitments about its own treatment of a foreign investment contract but also of tying the hands of its successors. FDI flows to high-profile, valuable, long-term projects become greater than would otherwise be feasible—especially oil, mining, and infrastructure.

But while failure in contract markets provides an authentic rationale for public-sector intervention, such intervention puts national guarantee agencies like OPIC or multilateral guarantee agencies such as the World Bank in the position of helping to enforce the highly favorable contractual terms initially demanded by international investors long after the early risk and uncertainty have dissipated. These public agencies have historically eschewed providing advice to host authorities about the structure or terms of the contracts demanded by multinational natural resource companies, arguing that these are private and confidential business matters between the parties. Today, it is becoming increasingly evident that the interests of developing countries—and, arguably, of the international investors themselves—would be better served if official guarantee agencies were to provide more advice and assistance about the apportionment of risk and the sharing of revenues from oil, natural gas, and mineral projects over long periods of time.

In the extractive sector, the most important contractual issues involve not just the rate of taxation but the structure of how taxes are calculated, whether via royalties or income taxes (Otto et al. 2006). A royalty consists of a per-unit levy on production (\$10 per barrel of oil, 20 cents per pound of copper) or a percentage of the market price of production (10 percent of the market price for oil or copper). The royalty structure is business-unfriendly in that the investor must pay the royalty from day one of production (before capital is recovered), and must keep paying whether the operation is showing a profit or a loss. The royalty tax structure raises per-unit cost of production, discourages investment in more risky or uncertain circumstances, reverses comparative advantage (lower-cost sites become higher-cost sites), encourages early cutback of production (otherwise commercially feasible reserves become noncommercial), and promotes undesirable engineering practices (the investor removes high-grade deposits and leaves low-grade deposits in the ground). In the petroleum sector, production-sharing agreements have all of these adverse royalty characteristics.

Host authorities nonetheless favor the use of royalties for reasons of historical legacy (a royalty is what an operating company owes the landlord for exploitation of the subsoil around the world) and simplicity of calculation. The royalty structure avoids the threat that international companies will use transfer pricing—an unavoidable feature of the income tax structure—to deprive the host of what rightfully is owed.

An income tax subtracts costs of production from sales revenues to calculate company profit, and then applies the income tax rate to the profit (say,

30 percent) to determine what is owed to the host. The income tax structure is business friendly in that the company pays only when it is making a profit. This structure encourages continued production in any given country, or site, to the point where marginal extraction cost equals market price. Depending on host-country accounting regulations, the investor usually recovers most capital via accelerated depreciation and payoff of loans before showing a profit or being liable for income tax.

Host authorities object to the income tax structure because international investors pay little or no tax in the early years of project life. The host authorities abhor the specter of international companies manipulating transfer prices to avoid paying the taxes they otherwise would owe—a multinational natural resource company may sell oil to its own refinery in Rotterdam or mineral concentrate to its own refinery in Japan, may borrow capital from its own financial center in Panama, or may purchase bookkeeping services from parent headquarters at prices calculated to shrink the profit reported to the host.

In principle, transfer pricing can be dealt with in a straightforward manner: The international company is required to show that the price received or paid in an interaffiliate transaction is approximately comparable to what would be received or paid in a comparable transaction among unrelated parties, with the burden of demonstration on the company. In practice, transfer pricing can become quite complicated in the details, but with training of local tax officials and with services purchased from recognized accounting firms, host authorities in the developing world can be equipped to deal with transfer pricing just as tax collectors in Canada, Australia, or the United States do. In Liberia, for example, the mineral development agreement initially negotiated by Mittal Steel allowed the parent investor to use for tax purposes a price paid for Liberian iron ore that was exported to Mittal affiliates, potentially depriving the government of substantial revenues (Global Witness 2006). International experts brought in by President Ellen Johnson Sirleaf amended the contract to reflect the arm's-length rule, leaving taxation to be based on the international market price of iron ores of the same grade (Global Witness 2007).¹³

There is growing recognition that both host-country and international-investor interests would be served by more active multilateral assistance in the design and negotiation of contracts in the extractive sector.¹⁴ The regressive royalty structure has been a principal reason why many developing countries did not participate more fully in the commodity boom of 2002–07, which in

13. See also Publish What You Pay, “Liberian Legislature Passes the Liberian Extractive Industry Transparency Initiative Act,” press release, June 11, 2009, www.publishwhatyoupay.org (accessed on February 1, 2011).

14. Daniel Dumas, Head of the Economic and Legal Section of the Commonwealth Secretariat, presentation at Extractive Industries Week, a conference on “Improving Extractive Industries Benefits for the Poor,” World Bank, Washington, March 4, 2009. The Commonwealth Secretariat has been a pioneer in helping developing-country authorities design oil and mineral codes and negotiate with international investors.

turn has contributed to the reaction against private ownership in the extractive sector in Latin America, Africa, and Asia (Christian Aid 2007, Donnelly and Ford 2008). Leaders of the international corporate community, in turn, have indicated that they would be receptive to more progressive income tax rates—perhaps even excess-profits taxes—if these would contribute to greater contract stability.¹⁵

To be sure, multilateral efforts to give developing-country negotiators confidence that a shift toward income taxes would serve their populations' long-term interests most effectively will not eliminate all sources of tension. The income tax structure means host authorities receive few revenues early in the life of even highly successful projects (ICMM 2006–07). In Chile, the top 10 foreign-owned mining companies paid taxes of \$2.1 billion from 1991 to 2003, in comparison to the two state-owned mining company payments of \$9.7 billion, despite greater production and lower costs, largely because they subtracted accelerated depreciation on new properties (six of the 10 paid no income taxes during this 12-year period, and two began to pay income taxes only in 2003). Once the period of accelerated depreciation ended, one foreign-owned mine alone (Escondida) jumped from virtually no income taxes to \$423 million in 2004. Similarly, in Peru, the new Antamina copper mine paid no more than \$20 million in taxes in 2004, the last year of accelerated depreciation, thereafter climbing to \$319 million in 2005.

So it is unlikely that the royalty structure will be abandoned altogether. However, host interests would be best served by help in tilting tax collection as steeply as is politically feasible away from royalties and toward income taxes.

Finally, there is widespread concern among international civil society groups and host-country activists that local communities where mines, pipelines, or oilfields are located will be neglected or shortchanged in the distribution of host-country revenues. There have been notorious difficulties in the delta regions of Nigeria and other parts of Africa. A frequent recommendation is that host countries adopt a revenue-sharing formula to ensure that a portion of tax receipts be dedicated to producing areas.

The empirical record of such earmarking arrangements is quite mixed, however. Budget and tendering procedures at the local level may be quite weak. For example, recent evidence from Peru, where a portion of mining revenues has been given directly to mining communities without central government planning, coordination, or supervision, offers a cautionary picture.¹⁶ Instead of water supply systems, roads, and schools, the local communities now have dozens of new futbol stadiums, usually built without competitive bidding by

15. Sir Mark Moody-Stuart, Chairman, Anglo American, presentation at the Resource Endowment Initiative Discussion Panel, Brookings Institution, Washington, June 29, 2006; John Groom, Chair of ICMM's Resource Endowment Initiative and Head of Safety, Health and Environment for Anglo American, "Extractive Industries Week: Improving Extractive Industries Benefits for the Poor," remarks at the World Bank, March 4, 2009.

16. Author interviews, Peru, June 2007. See also ICMM (2008).

associates of the mayor or governor. Chile, in contrast, has achieved significant poverty reduction in the Antofagasta region via efficient centralized budget allocations from Santiago.¹⁷ The desire that producing areas—like those in Nigeria—actually see some benefits from natural resource revenues must be tempered by wariness about the capacity of local communities to handle how to spend what they receive.

Advancing Environmental Standards and Sustainable Development Goals

The participation of rich-country development agencies and multilateral lending institutions in extractive-sector projects can also help ensure that investors and hosts observe best environmental practices and promote other sustainable development objectives.

These agencies and lending institutions categorically refuse to support investments in primary tropical forests or other areas where exploitation would significantly disrupt the ecosystem or jeopardize endangered species. Less risky but still problematic projects are required to prepare an environmental impact assessment, and investors must agree to ongoing environmental audits. Most official supporters now require that regional and local authorities as well as the general public be involved in environmental assessment activities before and over the course of extractive industry operations. Banks representing some 80 percent of the project finance market have signed on to the Equator Principles that state that the projects they lend to will be developed in a manner that is socially responsible and reflects sound environmental management (Likosky 2009). How these principles will be implemented will be bank-specific, and where disputes will be settled is unclear. Unlike in the past, in the contemporary era international investors must prepare life-cycle plans to ensure cleanup of waste sites and postdepletion rehabilitation in order to qualify for national or international backing. In 2010, the World Bank adopted new measures to promote the Global Gas Flaring Reduction Partnership, which is dedicated to helping combat climate change by reducing gas flaring worldwide.

An area where concerns about contract stability as discussed in the previous section and environmental regulation overlap emerges when host countries decide to raise standards or tighten enforcement. International investors may invoke dispute-settlement provisions of free trade agreements to seek damages from stricter environmental regulation. For example, Pacific Rim, a Canadian-based gold mining firm, is suing El Salvador under the Central America Free Trade Agreement for \$77 million in costs and hoped-for profits because the company has not received approval to exploit gold ores it has found (Van Harten 2010). The government of El Salvador responds that Pacific Rim has failed to satisfy steps in the investment approval process,

17. For evidence from Chile and other countries with mining industries, see ICMM (2009).

including conducting an acceptable environmental impact assessment. On the one hand, international companies that have invested money in exploration do not want to be frustrated when they are ready to move into exploitation. On the other, host authorities will seldom be able to upgrade environmental regulations that apply to all companies if international investors have a privileged position that requires them to be totally compensated for every change that is ever made.

Efforts to ensure transparency and accountability in natural resource revenue flows, and to improve governance, will be at the center of policy recommendations for developed and developing countries in the concluding chapter of this volume—overlapping somewhat with concerns about FDI in infrastructure, but quite distinct from the policy agenda for FDI in manufacturing and assembly.