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# Structural Vulnerability, Imperfect Contracts, and "Political Risk" in Natural-Resource and Private-Infrastructure Projects

Natural-resource and private-infrastructure investments have always aroused unusually strong reactions. Fears about loss of sovereignty, exploitation, gunboat diplomacy, and foreign intervention go back to the 19th century and before. There are sensitive questions about foreign ownership of subsoil rights and about loss of control over exhaustible resources.

For all of these reasons, foreign investors in these sectors have been particular targets of nationalistic actions on the part of host authorities. From the 1950s through the late 1970s, there was no other sector where there were more demands for host-government ownership, and prominent nationalizations took place in mining, petroleum, and foreign-owned utilities (Lipson 1985; Rodman 1988; McKern 1993; Minor 1994).

With greater overall acceptance of FDI in the developing countries and economies in transition today and privatization replacing public-sector ownership at a rapid pace around the globe, one might think that foreign investors in natural-resource and private-infrastructure projects could come to be treated just like FDI in any other sector. But this is not likely to be so. Besides the political sensitivity of investment in minerals, petroleum, pipelines, and other infrastructure, there are structural characteristics associated with such projects that endow them with special vulnerability in their relations with host authorities, special exposure to what Vernon (1971) first identified as the "obsolescing bargain"—adverse changes in the terms of the investment after the project is successfully launched—that will not automatically disappear, and could even be exacerbated, within a climate of greater openness and eagerness toward FDI.

## Structural Vulnerability and the Obsolescing Bargain

The obsolescing-bargain model grew out of early efforts by Penrose (1959, 1968) and Kindleberger (1965) to understand the negotiations between foreign investors and host countries within the framework of bilateral monopoly, with the firm controlling sector-specific capabilities and the host government controlling the conditions of access.

Within this bilateral monopoly, Penrose argued, the host should aim to offer no more than the bare minimum to attract FDI. Quite to the contrary, countered Kindleberger, foreign investors should expect to receive returns at least equal to the scarcity value of their services. According to him, hosts should consider how much worse off they would be if they had to move to the next-best alternative for the exploitation of their resources and be prepared to offer anything above that to the potential investor.

Two conclusions emerged from the Penrose/Kindleberger debate: first, the outcome of negotiations between foreign investors and host authorities about the terms of entry was indeterminate. Second, the range among plausible solutions was quite broad.

But Vernon (1971) believed that the bilateral monopoly framework of Penrose and Kindleberger was too static (see also Moran 1974; Smith and Wells 1975). What adds dynamism to the foreign-investor/host-country relationship is the evolution of risk and uncertainty over the life of an investment project.

Before the investment is sunk, risk and uncertainty are high and the potential investor should be able to extract quite favorable terms to compensate for both. These terms are enhanced by the investor's quasi-monopolistic position. But as risk and uncertainty dissipate after the project proves successful and as other potential investors emerge to erode the quasi-monopolistic position, the host finds itself in a position to renegotiate the initial terms rather than keep paying the opening risk premium forever.

This dialectic in investor-host relations produced abundant evidence of the obsolescing bargain from the mid-1960s to the mid-1980s. Even in cases where no host ownership or nationalization took place, the typical time interval between negotiation and renegotiation of investment contracts shortened and the swing in tax rates alone grew by 30 to 40 percentage points.

While the dynamics of the obsolescing bargain were frequently surrounded by heavy emotion in individual cases, Vernon's insight underscored a "rational" thrust of self-interest that lay beneath the terms demanded by both sides, by the foreigner in the terms sought at the beginning and by the host in the terms sought in subsequent periods.

The thrust of self-interest sprang from political as well as economic origins: initial host authorities would award terms attractive enough to entice the first investment; successor host authorities would claim that

those terms were overly generous and constituted an affront to national needs. But this political dialectic was itself suprapolitical: left-wing governments engaged in it and so did right-wing governments; democratically elected governments engaged in it and so did authoritarian governments; civilian governments engaged in it and so did military governments.

Even when FDI remained welcome and nationalization and expropriation were never threatened, this political dialectic has tended to overshoot. Rival political aspirants could not resist demanding renegotiation of contracts in these sectors, even if the process retarded reinvestment by the original investor or scared off new investment by other companies in the same sectors.

In one of the most detailed analyses of this phenomenon, Mikesell (1975, xx) examined the internal rate of return on the investment for two large "successful" mining projects, one in Latin America and one in Southeast Asia. His study covered lengthy project life cycles, and he concluded that there was a common pattern of undercompensation for the investors that created the prospect for suboptimal patterns of investment even when there was no overt threat of nationalization. He concluded that if the changes in the regulatory environment "had been anticipated by the foreign investors, it is doubtful whether either of these mines would have been constructed."

The inability of host authorities to keep promises hurt themselves, hurt the investors, and hurt the world at large. FDI in natural-resource projects (and, by inference, private-infrastructure projects) are more exposed to this "structural vulnerability" than are investors in other sectors. They must make large lump-sum investments that require payment of a high risk premium long after the initial risk and uncertainty have dissipated. Furthermore, the parent firms must require that winners in a particular country not only pay for themselves but also pay for losers elsewhere.

And, while the success of their investments is particularly sensitive to stability in the host regulatory environment, they do not have the tools that other investors have to deflect the obsolescing bargain. They suffer from the "hostage effect" associated with large sunk capital, and unlike small investors, they cannot easily threaten to withdraw. They do not as a rule have rapidly changing technology, proprietary processes, or brand-name recognition to withhold in resisting renegotiation of their contracts.[1]

1. While there is a great deal of sophisticated technology in the exploration and construction phases of natural-resource and infrastructure projects, the ability to withhold these intangible assets is largely expended, so to speak, once the project is launched. Unlike rapidly changing product and process technology in many manufacturing investments, control over provision of the technology cannot be used effectively to offset the vulnerability of an operating project to renegotation of the initial contractual terms. For a survey of techniques and strategies used by international firms to manage political risk, see Moran (1993, 1998).

This structural vulnerability that petroleum, mining, pipeline, and infrastructure projects continue to be exposed to constitutes "the new face of political risk" in the contemporary era (Wells 1998; Moran 1998).

Such structural vulnerability represents a classic case of market failure due to imperfect contracts. Credibility in honoring commitments is a valuable asset in strategic negotiations. Lack of credibility is so costly that strategic negotiators will search for ways to demonstrate that they have bound their own hands (and the hands of their successors) to enforce their own promises (Schelling 1966; Williamson 1985). Absent such credibility, the strategic agreements fall short of what is socially optimal.

Conventional financially oriented approaches to political risk illustrate the shortcomings of private investors acting on their own (Tilton 1992). One corporate response has been to raise the hurdle rate for approving new investments. But the challenge of dealing with structural vulnerability does not spring from the stinginess of the entry conditions; rather, it comes from the likelihood that the terms of the contract will be altered by political leaders once the project is successfully underway.

A second corporate response has been to limit approval to projects that could be successfully front loaded, with a payback period of no more than three or four years. Except for a handful of petroleum cases, this condition would eliminate from consideration a vast array of commercially promising projects.

A third corporate response has been to self-insure by diversifying the investor's exposure among many projects. But if all the projects in a parent firm's portfolio suffer from the same structural vulnerability, the investor exposes itself to potential systemic risk.

A final corporate response has been to alleviate risk by buying private political-risk insurance. But the traditional coverage of private political-risk insurers—expropriation, war, and civil disturbance—has not included exposure to the obsolescing bargain.

What was needed were mechanisms that would allow natural-resource and private-infrastructure projects that had favorable basic cost characteristics under foreign developers to move forward despite the fact that the regulatory commitments of initially enthusiastic and compliant host authorities were quite suspect.

Over the course of the 1980s, therefore, international investors began to develop strategies to address the problems of credible commitments directly. Some investors turned to nonrecourse project financing, which lowered their own equity exposure and replaced it with more highly leveraged syndicates of financial intermediaries that loaned funds directly to the project and could not seek compensation from the parent if conditions went awry in the host country (see table 9.1).

More important, these investors began to organize such syndicates into a network of interested parties (including export-financing agencies

**Table 9.1 Project financing via loan syndications for infrastructure development in developing countries and economies in transition, 1986-95**

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---|---|---|---|---|---|---|---|---|---|
| Private sector | 100 | 165 | 137 | 917 | 2,002 | 3,509 | 5,756 | 12,267 | 15,734 | 15,607 |
| Loans | 100 | 165 | 137 | 767 | 1,380 | 126 | 1,536 | 6,271 | 6,007 | 11,086 |
| Bonds | 0 | 0 | 0 | 150 | 500 | 740 | 1,155 | 3,867 | 5,810 | 3,262 |
| Equity | 0 | 0 | 0 | 0 | 121 | 2,643 | 3,065 | 2,130 | 3,918 | 1,259 |

*Note:* Amounts are those covered by closed transactions, not necessarily disbursements.
*Source:* Euromoney Loanware and Bondware and World Bank staff estimates.

from multiple home governments) to try to create deterrence structures against major changes in investment agreements, deterrence structures that extended to the actions of future authorities meddling with agreements that they had not personally approved.

## Multilateral Mechanisms to Enhance the Stability of Investment Agreements

Increasingly, deterrence structures have exhibited a multilateral dimension, in which three institutions within the World Bank Group—the World Bank itself (i.e., the International Bank for Reconstruction and Development [IBRD]), the International Finance Corporation (IFC), and the Multilateral Guarantee Agency (MIGA)—have figured prominently (Benoit 1996; World Bank 1995; Spiller 1994).

First, the IBRD launched a program of guarantees for investors, both direct guarantees that help to protect the investors themselves and indirect guarantees via loans to host governments to fund their own guarantees to investors.

In the direct guarantee program, the IBRD covers lenders to a project against certain specified risks (partial-risk guarantee), or it covers specified payments to lenders against all risks (partial-credit guarantee). By specifying the actions on the part of the host that might prevent the investor from fulfilling its obligations to the lenders, the guarantee extends protection to the investor. When the IBRD issues its guarantee, it requires a counter-guarantee from the host country and holds the country financially responsible for any payments that the IBRD is forced to make.

The partial-risk guarantees cover risks arising from nonperformance of sovereign contractual obligations or from force majeure events that affect a project. Sovereign contractual obligations can include "maintaining the agreed-upon regulatory framework, including tariff formulas."

Force majeure events can include "changes in law." In the 1994 Hub River Power project in Pakistan, for example, the IBRD provided a partial risk guarantee covering $240 million of the $680 million in internationally syndicated commercial bank loans to the project company. The government of Pakistan simultaneously signed an indemnity agreement to reimburse the World Bank for any amounts distributed under the IBRD guarantee.

The partial credit guarantees cover all events of nonpayment for a designated part of the financing, usually the later maturities (such as the 10th to 15th year). The Yangzhou Thermal Power Project in China in 1994 included commercial loans of $120 million the out-year payments of which were guaranteed by the IBRD, with an indemnity agreement similar to that of the Hub River project. The involvement of the IBRD in the later maturities, in general, can be particularly comforting for investors concerned about a long-term swing in the obsolescing bargain.

In addition, the IBRD has supported host-government guarantees to investors by providing loans to the host to finance them. In 1995 the IBRD provided $30 million to Moldova to cover foreign-supplier credits provided to exporters from Moldova against a variety of political and force majeure risks.

Because the World Bank guarantee programs always entail a corresponding obligation from the host government, there is a financial disincentive for whatever government is in office (whether the government that signed the counterguarantee or a successor government) to take actions that would trigger payments to the investors. More broadly, however, because "developing countries often rely on continued financial support from the World Bank to support their development strategies," the World Bank occupies "a relatively strong position to address and resolve with host governments disputes regarding government actions which might adversely affect the project" (Benoit 1996, 48).

Second, the IFC has taken an increasingly aggressive role in participating in these sectors. The IFC is the only institution within the World Bank Group that takes an equity position in projects. The IFC characterizes itself as a passive rather than an active investor and is prohibited from assuming responsibility for the management of any enterprise in which it has invested, but it frequently positions itself as the swing vote to which both foreigner and host authorities must appeal on major management decisions.

In a proposal for the development of the Amantayau goldfield in Uzbekistan in 1996, for example, the IFC considered contributing $13 million out of a total of $70 million in equity and shareholder subordinated loans. For this it would receive 8 percent of the shares, with Lonrho (the principal foreign investor) gaining 35 percent and two Uzbek partner companies each holding 28.5 percent (giving the Uzbeks the majority holdings). The Supervisory Board that determines all of Amantayau's

major operational decisions, however, would consist of nine members: four from Lonrho, two from each of the Uzbek partner companies, and one from IFC. The IFC vote, therefore, would likely be decisive in any dispute between the foreign investor and the Uzbek partners (Ubaidullaev 1996).[2]

Besides small amounts of equity capital, the IFC also provides loans from its own resources (known as "A-loans") and has an extensive loan syndication program (known as "B-loans"). Under the latter, IFC remains the lender-of-record for the borrower; this practice not only secures commercial financing for many borrowers that would not otherwise have access to long-term project funds on reasonable terms but mitigates currency transfer and other political risks for the lenders.

As both an equity investor and a lender/syndicator, the IFC is directly affected by any dramatic changes in the regulatory environment. Because the IFC reports to the World Bank Group on the health of the projects in which it has invested, IFC participation in any particular project opens a path to scrutiny by World Bank agencies, "which in turn often can exercise considerable influence over countries in support of sound investment policies" (Benoit 1996, 71) (see box 9.1).

Finally, MIGA provides political-risk insurance via contracts of guarantee for foreign-equity and related debt investments. In addition to covering losses from currency inconvertibility, expropriation, and war and civil disturbance, it can insure investors against host-country breach of contract if the investor is denied access to an appropriate forum to adjudicate its claim within a reasonable period or denied the right to enforce a favorable judgment regarding the breach. In addition, it can extend coverage to other specific noncommercial risks if requested by the investor and the host country and approved by the MIGA Board.

Beyond this, MIGA and the IBRD have been exploring an initiative in which the latter would offer a loan to the host to provide designated investors with coverage against specified political risks, while the former would evaluate and process any investor claims. MIGA would then pay investor claims from the proceeds of the IBRD loan, and the host would be obligated to repay all amounts withdrawn from the loan to the IBRD.

The use of political-risk insurance—including coverage provided by private, national, and multilateral agencies—has been growing rapidly. The Berne Union, comprising 24 national investment insurers and MIGA, reported a sixfold increase in coverage, from $2.3 billion in 1989 to over $15 billion in 1997. Private insurers have extended their periods of cover for expropriation and contract frustration from 3 to 10 years and have added a new category of coverage for "breach of undertaking" (Brownlees 1997). Their activities complement those of multilateral and national insurance agencies: in a metaphor introduced by West (1996), "if both

2. With the slump in gold prices in 1997-98, the project did not move forward.

### Box 9.1 Escondida copper in Chile and the IFC/World Bank Group umbrella against political risk

The $1.1 billion investment by Broken Hill Proprietary in the Escondida copper mine in Chile, launched in 1991, was a pioneer in using the IFC to provide an umbrella against political risk.

Broken Hill asked the IFC to help with the syndication of the $680 million loan package and to take a 2.5 percent equity position itself. In the Australian firm's estimation, the inclusion of the IFC would help to ensure the stability of the investment agreement. A change in the tax rate (negotiated at 49.5 percent for the 20-year duration of the investment contract) would materially affect the IFC. An act of expropriation would constitute a breach of the broader IFC-Chilean operating agreement, which proscribes any form of seizure by executive or legislative action. While neither a tax change nor a nationalization would legally require the World Bank Group to take action with regard to its entire portfolio of loans to Chile, it "could not help but take note of such an abrogation of contract as it considered new Chilean loan applications."

The financing for Escondida was executed on a nonrecourse basis, with the Chilean subsidiary, Minera Escondida Limitada, as borrower, not parent equity holders (BHP 57.5 percent, RioTinto-Zinc 30 percent, and a Japanese consortium headed by Mitsubishi 10 percent). The Industrial Bank of Japan was appointed trustee for the lenders, with the proceeds of all sales paid into an offshore account. The Industrial Bank of Japan has responsibility for disbursing the monies generated by sales according to the terms of the 20-year investment agreement.

The buyers and export-credit financing agencies provided further support for the stability of BHP's investment agreement. Three-quarters of the output through 2002 was committed under a 12-year sales contract to smelters in Japan, Germany, and Finland, giving them a stake in a steady flow of copper. The long-term contracts were then used to generate export financing from the Export-Import Bank of Japan ($350 million), the Kreditanstalt fuer Wiederaufbau of Germany ($140 million), and the Kansallis-Osake-Pankki of Finland ($47 million) for the full 12-year period. An interruption in production, in the assessment of BHP, "would have the Export-Import Bank of Japan banging on the door of the Chilean government."

*Sources:* Moran (1993); Broken Hill Proprietary Company Limited, Form 20-F, submitted to the US Securities and Exchange Commission (various years).

groups were property insurers, it could be said that one group (private insurers) installs lightning rods (i.e., provides service to mitigate the effects of a loss) and the other (national and multilateral insurers) both installs lightning rods and seeks to influence the weather (i.e., to reduce the frequency of lightning strikes on the building)." Private investors need both kinds of service—compensation for loss and deterrence against the prospect of suffering loss.

Beyond offering these services, however, political-risk insurers indicate that they have a potentially even more important role to play—as negotiator and facilitator when investment disputes arise. One national insurer has reported, for example, that out of four recent notifications of a potential claim by insured investors, only one actually led to a claims payment. The other three were resolved, informally and quietly, before they resulted in a loss (West 1996).

## A Balance between Stability and Flexibility

The growing efforts to reinforce the stability of investment contracts in natural-resource and private-infrastructure projects poses a public-policy challenge for developing countries and economies in transition.

On the one hand, the magnitude of possible investments is staggering. Even after discounting the slowdown from the Asian financial crisis, infrastructure projects alone may total more than $1 trillion over the next 10 years. To bring them to fruition requires successful intermediation between the structural vulnerability of the investors and the imperfections in contract markets.

As in other forms of strategic bargaining, mechanisms that enhance the credibility of commitments—mechanisms that "bind the hands" of particular players—can actually strengthen the bargaining position of those players and magnify the payoffs they receive from successful negotiations (while at the same time raising global welfare) (Schelling 1966). Somewhat paradoxically, therefore, it is in the hosts' own interest to participate in and support some measures of self-denial. In so doing, host states are absorbing risk; they are doing no more than providing the equivalent of an extended warranty that covers extra-commercial breakdowns to potential investors.

On the other hand, such mechanisms are undeniably intended to limit the sovereignty of host-country actions, including the sovereignty of democratically elected representatives. Beyond the political issue of sovereignty, there is a genuine economic question of how long investors should deserve to be rewarded for initial risks and uncertainties after those risks and uncertainties have dissipated. Finally, there is a fundamental divergence between investor and host perceptions of what constitutes adequate returns, with the investors wanting successful projects in any given host country to pay for unsuccessful projects elsewhere—hardly an appealing reward for a host with favorable sites and self-disciplined behavior.

While supporting multilateral restraint mechanisms in general, therefore, authorities in the developing world and economies in transition will nonetheless want some flexibility in how long international investors can enforce the initial terms of their investment agreements; however, they

will seek to avoid impeding the initial investment decision. One possible approach to compromise is contained in the Elaboration on Foreign Investment Principles in the OECD's Commonwealth of Independent States (CIS) Expert Group, in which the horizon of stability for investment agreements is set at 10 years. At that time, a reasonable standard for any potential adjustment of terms of investment might be "national treatment"—that is, tax and tariff (input-price) levels no different from those available to companies in the economy at large.