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FDI in Infrastructure

The quality of infrastructure—energy, transport, telecommunications, water, and sanitation—affects prospects for economic development in many ways. Whether looking at growth, productivity, or output, 63 percent of the studies carried out between 1989 and 2007 found a positive and significant relationship between infrastructure and the target economic outcome (Straub 2008). For studies focusing exclusively on developing countries, the link between quality of infrastructure and economic performance is stronger than for developed countries.

While there is a considerable degree of diversity among the experiences of countries in Latin America, relatively poor performance in infrastructure in the 1980s and 1990s accounted for as much as one-third of the widening output gap between Latin America and East Asia (Easterly and Servén 2003). In Africa during the 1990s, only about one-fourth of the decline in the continent's share of world exports could be attributed to weak price competitiveness. The remainder derived from nonprice factors, including infrastructure services and the flow of trade information (Oshikoya et al. 1999). Limão and Venables (1999) show that the volume of trade varies closely as a function of transport costs—a 10 percent drop in transport costs expands trade by 25 percent. They estimate that raising a country's ranking in infrastructure services from the 75th percentile to the median (50th percentile) increases the volume of trade by 50 percent. As of 2009, Freund and Rocha (2010) estimate that a one-day decrease in the inland transit time in sub-Saharan Africa increases exports of new products by 7 percent and is equivalent to about a 1.5 percent decrease in all import tariffs of partner countries.

Over the span of history, the functioning of state-owned infrastructure monopolies has varied considerably. In developing and transition economies,

however, there have been persistent problems of underpricing of output, nonpayment and theft, revenue shortages and inadequate investment, poor maintenance of facilities, and deteriorating service quality (Kessides 2005). With the exception of Eastern Europe, publicly owned infrastructure companies underserved poor and rural households (Clarke and Wallsten 2002).

Privately owned infrastructure—whether domestic- or foreign-owned—has demonstrated better performance (UNCTAD 2008; Andres et al. 2008, chapter 10). Despite fears that private ownership would deny access to the poor or price infrastructure services beyond reach, evidence from telecommunications, electricity, water, and sanitation sectors suggests that access for lower segments of the population in Uganda, Bolivia, Gabon, and Peru increased with privatization.[1] Poor citizens also gain from higher growth rates and more employment throughout the economy associated with good infrastructure performance; however, they may experience fewer opportunities for direct employment in electric utilities, railroads, and water companies.

Distinctive Public Policy Concerns

The 1990s witnessed an investment boom in infrastructure led by foreign corporations. In 1990, private infrastructure investment equaled no more than $18 billion, but climbed rapidly to a peak of approximately $130 billion in 1997. In Latin America, privatization of existing facilities represented the largest outlays. In East Asia, greenfield power projects were the predominant phenomenon. As discussed later, the Asian financial crisis of 1998 showed that many of the projections upon which investments were made were excessively rosy. By 2006–07—even before the onset of the international financial crisis—private infrastructure investments had dropped to less than half of the higher levels of the 1990s (UNCTAD 2008, figure 3-2; Leigland 2008). Meanwhile, public attitudes toward private ownership of infrastructure soured in many parts of Latin America and Asia (Andres et al. 2008, chapter 1), although by 2010 a rebound in private infrastructure projects had begun to emerge in parts of both regions.

Effective participation of foreign investors in infrastructure projects remains of vital importance to developing countries. In the pages that follow, reliable electricity, water, and telecommunications will repeatedly show themselves to be key components of indicators found in the World Bank's Ease of Doing Business Index.[2] High marks for these services, plus efficient road, port, and airport facilities, are central ingredients for the growth of a robust indigenous business sector in any given developing economy; for the attraction of

1. For a summary of the evidence of access for the poor, see Andres et al. (2008), Harris (2003), Nellis, Menezes, and Lucas (2004), and Chong and Lopez de Silanes (2005). For a more cautious assessment of distributional effects, see Estache (2006).

2. The World Bank index is available at http://doingbusiness.org/rankings (accessed on February 1, 2011).

foreign investors in low-skilled FDI operations like garments and footwear; for the ability of individual host countries to move up from these low-skilled FDI operations to middle-skilled FDI operations like electronics, medical products, auto parts, and other industrial products; and for the development of FDI supply chains and backward linkages deep into the host economy.

The public policy preoccupations associated with foreign investment in infrastructure closely parallel those found in the extractive sector. Contract stability is highly problematic, and when foreign infrastructure companies are involved, official political-risk insurance agencies (national and multilateral) become parties to disputes. Foreign investors in infrastructure, like natural resources, rank near the top among those accused of giving bribes and of corruption, just below defense industries and construction (Kenny and Soriede 2008, Kenny 2006, Estache 2006). Special partnerships with family members, business associates, and friends of developing-country leaders have been used by US, European, and Asian investors to secure infrastructure contracts—like natural resource concessions—without running afoul of the Organization for Economic Cooperation and Development (OECD) Anti-Bribery Convention or the US Foreign Corrupt Practices Act. Therefore, in the concluding chapter of this volume, many of the policy recommendations for developed and developing countries and for multilateral financial institutions concerning FDI in infrastructure will overlap with FDI in extractive industries.

But foreign investment in infrastructure—particularly FDI in large-scale power projects—also features distinctive issues that are only now being recognized and grappled with, leading to somewhat tentative conclusions about the appropriate path for policymakers. These distinctive issues require separating political from commercial risk, reforming investor-state arbitration, and avoiding moral hazard.

For help in trying to optimize the benefits from FDI in infrastructure, it is useful to consult the World Bank's infrastructure and law website, which has been designed for government officials, project managers, and lawyers involved in the planning, design, and legal structuring of infrastructure projects, especially projects with private-sector participation (so-called public-private partnership, or PPP, projects).[3] The website was launched in February 2009 with funding from the Public-Private Infrastructure Advisory Fund (PPIAF), a multidonor technical assistance facility that helps developing countries improve the quality of their infrastructure through private-sector involvement. The PPIAF grew out of a joint initiative of the governments of Japan and the United Kingdom, working closely with the World Bank. The multilingual site covers the power, telecommunications, transport, and water and sanitation sectors. Regional consultations, cross-border pairings of regulators, and international training missions play a growing role in capacity building (UNCTAD 2010a).

3. See the World Bank website at http://web.worldbank.org (accessed on February 1, 2011.)

Blurring of Commercial and Political Risk and the Need to Reform Investor-State Arbitration

The development strategy community has generally applauded the movement to arbitrate disputes between foreign investors and host governments. Independent arbitral tribunals following the procedures of the International Centre for Settlement of Investment Disputes (ICSID) or the United Nations Commission on International Trade Law (UNCITRAL) represent a channel for disputes to be resolved via the rule of law rather than through crass political pressure of the strong against the weak, overt or covert.

It has become clear since the Asian financial crisis of the late 1990s that foreign investor participation in infrastructure projects requires reappraising which parties should bear the burden of absorbing commercial risks associated with fluctuations in supply and demand for services and with fluctuations in exchange rates, as well as how contracts in this sector should be enforced.

Foreign investment in power, roads, water, sewerage, and telecommunications resembles foreign investment in petroleum and mining in that the foreign investor must sink large amounts of capital up front and then rely on subsequent revenues over a long period of time to justify the initial commitment of capital. But foreign investment in infrastructure suffers from one distinctive feature that complicates the life of such projects immensely—a mismatch between most of the resources that are initially expended in dollars, euros, yen, or whatever foreign currency involved, and the local currency payments that take place over the life of the project. Who should bear these currency risks, and when should failures to satisfy contractual expectations be considered economic or commercial events (inability to pay) as opposed to political events (unwillingness to pay)?

To participate in booming Asian and Latin American markets, foreign investors in the power sector grew accustomed to insisting—as a condition of putting capital into infrastructure—that host authorities commit themselves to supply inputs, or to purchase outputs, and to guarantee the foreign exchange value of payments made in local currency years into the future. In settings where host-country economic expansion seems unending, and forecasts of demand for electricity grow at 8 percent per year (or more) as far as the eye can see, the take-or-pay contracts associated with foreign-sponsored infrastructure projects can appear quite reasonable, even when they guarantee rates of return on the order of 30 percent a year to the foreign sponsors.[4] As the global economy emerges from the international economic crisis in 2010, contemporary power project proposals in China and India replicate the optimistic projections associated with Indonesia more than a decade ago, and may suffer similar effects any time the international economy weakens.

How should the costs of adjustment be apportioned, however, when the underlying assumptions for particular projects prove excessively rosy, or when

4. The data on private return-on-investment expectations come from Wells (1997, 10).

economic fluctuations in the world economy move in an adverse direction? Following an odd legal logic, when host authorities find themselves incapable of fulfilling their contracts due to external changes in the international economy, investor-state arbitral panels now typically judge their performance as political acts (unwillingness to behave as promised) rather than commercial acts (inability to behave as promised).[5]

An archetypal case that has drawn intense scrutiny involves the MidAmerica Corporation in Indonesia (Martin and Bracey 2001). MidAmerica sought concessions to build geothermal power projects in Indonesia in the mid-1990s backed by take-or-pay power purchase agreements signed by the state utility Perusahaan Listrik Negara (PLN). The central government of Indonesia had the Ministry of Finance provide a support letter, promising that it would "cause" the national oil and gas corporation (Pertamina) and PLN to honor and perform the obligations they had signed up for with MidAmerica.

Throughout the early 1990s, Indonesian authorities enjoyed a solid record of sound macroeconomic management. But when the Asian financial crisis of 1997 (originating in Thailand) hit the Indonesian economy, the central government in Jakarta had to formulate a tough austerity program as a condition to receive assistance from the IMF, World Bank, and ADB. Within the budget cutbacks, Indonesia placed "under review" those power facilities whose capacity was not needed immediately, including those of MidAmerica. In 1998, when PLN failed to accept and pay for the electricity under contract, MidAmerica took the case to arbitration.

Over the course of 1999, two arbitration panels found PLN in breach of contract, and ordered the government of Indonesia to pay damages in hard currency. The panels took no note of the financial crisis, the demands placed on Indonesia by the IMF and the World Bank, or the country's need to use scarce dollars to import food and medicine. When Indonesia failed to comply, MidAmerica demanded that the Overseas Private Investment Corporation (OPIC) make good on its political-risk coverage, triggering one of the largest claim payments in OPIC's history ($290 million of the total arbitration judgment of $572 million against Indonesia), prompting the US government, in turn, to seek recovery from Indonesia.

This case illustrates the pattern that has emerged in which the line between commercial and political risk becomes blurred (Kessides 2004). Political risk has traditionally been defined as a set of deliberate acts undertaken by host authorities to change the treatment of a foreign investor. Changes in market conditions over which the host country has little or no control that impede the host capability from meeting its obligations fall under the broader category of commercial risk. But according to Berry (2003), more than 90 percent of the political-risk claims paid by Lloyds syndicates in the five years after the onset of the Asian financial crisis arose because a state buyer or supplier was *unable* to make good on its commitments in full and on time. The formal default derived

5. For the origins of this interpretation by arbitration panels, see Berry (2003).

from economic misjudgment or overcommitment, not from bad faith or malicious intent on the part of host authorities.

This distinction has not gone unnoticed: National and multilateral guarantee agencies have become acutely aware of the need to redraw the line between political and commercial risk when take-or-pay contracts signed by parastatal agencies in the developing world are denominated in dollars, whereas utility payments by the local populace are made in local currency (private investors are seldom able to hedge local currency risk more than six months or so into the future). These agencies categorically refuse to provide explicit exchange rate protection. But they have abruptly discovered that when they insure these take-or-pay agreements against breach of contract, they implicitly expose themselves to enormous currency risk (Kessides 2004, 179). They have found themselves inadvertently fronting for private investors intent on shifting business risk onto others under the rubric of political-risk coverage. They now realize that international investor-state arbitration is being used to enforce an extremely one-sided distribution of risks in infrastructure projects, with adverse consequences for themselves and for the investment system as a whole, as well as for particular host countries that become parties to disputes.

One approach has been for institutions like the International Financial Corporation, Inter-American Development Bank (IDB), and Asian Development Bank to provide guarantees of infrastructure project debt denominated in local currency (Haddon 2004). The Chilean toll road Costanera Norte borrowed the local-currency equivalent of $260 million on the strength of a guarantee from the IDB in 2003. A wireless telecom company (Société Camerounaise de Mobiles) in Cameroon raised financing from local banks of $45 million on the basis of a guarantee for 25 percent from the IFC and Proparco, a French development institution, in 2002. But these guarantee structures still leave inflation risk to be dealt with by lenders and guarantors, and—since increased costs must be allowed to be passed through to customers—government "performance risk" remains as well.

What can be done to restore the distinction between political and commercial risk, while continuing to encourage FDI in infrastructure? No perfect solution has yet been found, but the outlines of how to proceed are beginning to emerge, as considered next.

Mediation, Work-Outs, and Avoiding Moral Hazard

The challenge for official political-risk insurers and investor-state arbitration panels is to devise a framework for dealing with investment project difficulties that arise out of regional financial contagion rather than from deliberate hostile acts on the part of host authorities. Such a framework could provide a "force majeure" suspension of contractual obligations during a sudden economic collapse, along the lines already visible in normal commercial relationships. In a study of 20 infrastructure projects whose terms had to be changed between 1990 and 2005, Woodhouse (2008) finds that the majority

(11) involved a mutual "work-out" between investor and host aimed at keeping the project viable over the longer term. These 11 all featured some kind of cooperative renegotiation, including restructuring fuel supply provisions, refinancing project loans, or identifying other aspects of the original contracts that could be changed by mutual agreement.

A change in how political-risk contacts are interpreted and arbitrated would have the added appeal of eliminating the element of moral hazard that is evident in the current system. International power companies covered by official political-risk insurance of the vintage in the Woodhouse study—like MidAmerica—behaved differently from those that were not. Investors caught in a regional economic downturn without multilateral or national political-risk coverage against breach of contract engaged in work-outs as outlined above. In Indonesia, for example, Unocal and Jawa Power agreed to a new timetable for bringing their power projects on line as the host economy recovered, in contrast to MidAmerica's exercise of the take-or-pay requirement in order to activate its OPIC claim. Current breach-of-contract coverage simply tempts an investor to walk away from a project once it is clear that the original assumptions were too optimistic. Worse, these policies lead the banks with a portfolio of insured infrastructure loans to withhold authorization for restructuring the original agreement.

A new framework that pushes the parties toward a mutually acceptable work-out would broaden the context within which investor-state dispute-settlement functions (UNCTAD 2010b, Riskin et al. 2009). Instead of focusing exclusively on the most narrow dimension of contract compliance—aimed at making the foreign investor "whole" ahead of every other priority for hard-currency expenditures on behalf of a population in crisis—arbitration could evolve toward a more mediation-like process to determine what is the best outcome for all parties and what best serves the public interest.