PUBLIC POLICY FOR THE
Privatesector
The World Bank FPD Note No. 30 November 1994

Back to the Future

The potential in infrastructure privatization

Michael Klein and Neil Roger

This Note is a synopsis of an essay by Michael Klein and Neil Roger which won the Silver Award prize in the 1994 Amex Bank Review essay competition.

The wave of infrastructure privatizations that swept Chile, New Zealand, and the United Kingdom in the 1980s is now sweeping the globe. At least 300 infrastructure privatizations and greenfield projects have been undertaken since 1989—mostly in Latin America, East Asia, and selected OECD economies. The momentum is driven by disenchantment with state provision, precarious government finances, and new technology. Whether this privatization wave will lead to lasting welfare gains or is just part of a historical cycle of privatization and nationalization is not yet clear. The answer will depend on whether governments can find competitive solutions to the provision of infrastructure services.

The advantages of private ownership

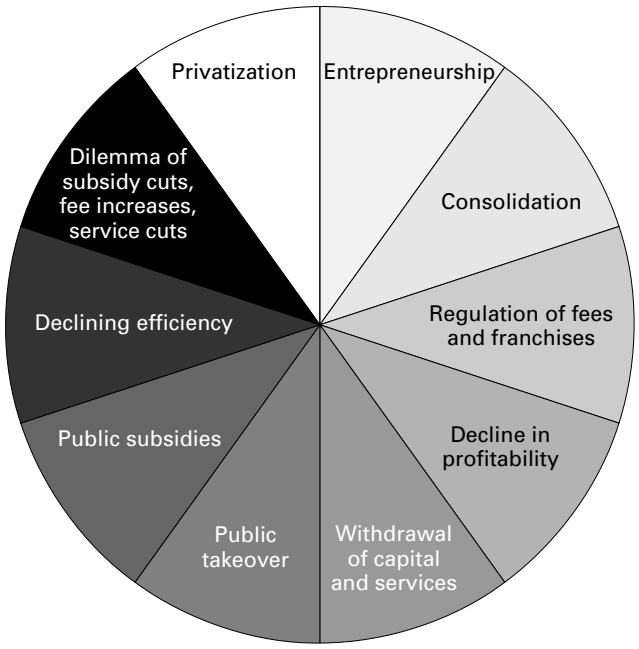
Private firms can be more efficient than public entities to the extent that they are better able to resist nefarious political interference. Government ownership almost certainly blurs the line between the firm's finances and the general budget. Typically, firms getting budget subsidies have trouble maintaining quality operations when fiscal problems arise. Or governments may be tempted to dip into the firms' treasuries in times of fiscal distress. The cost of this blurring of lines can be measured by the rapid system expansion after privatization, when corporate finances were freed from the public purse (Galal and others 1994). With this separation, shareholders and debtors have some confidence that the firm's financial integrity will no longer be in danger.

Why ever nationalize infrastructure?

In the nineteenth century, railways, canals, roads, and gas, power, and water systems were initially privately owned, operated, and funded in most countries. But with time, more and more infrastructure companies were regulated or nationalized, although the pattern varied substantially across and within countries and sectors. Wars and economic depression gave another boost to nationalization and stronger regulation, which increased in the 1940s and 1950s. Disenchantment with the performance of regulated or nationalized firms led again to deregulation and privatization in many coun-

Private Sector Development Department
Vice Presidency for Finance and Private Sector Development

Figure 1 The privatization-nationalization wheel



Source: Gomez-Ibanez and Meyer 1993.

tries from the 1970s onward. A stylized illustration of the cycle described above appears in figure 1.

Some of the motives underlying nationalization have been misguided. For example, governments have justified nationalization as a way to provide subsidies to industry, to control prices, and to extend patronage. These were never sound reasons. Other concerns about system integration, national security, health and safety, and foreign domination could be addressed while still maintaining private ownership. For example, where private firms were allowed to work out suitable arrangements, they managed to establish voluntary demarcation agreements between service areas as well as interconnection agreements. While it is clear that emergency national security situations may trigger government intervention, it need not take the form of prior nationalization. National emergency regulations affecting all sectors of market economies can cover infrastructure as well. Health, safety, and environmental concerns can be dealt with through the setting and monitoring of standards independent of ownership arrangements. And concerns about foreign ownership are subsiding. The profitability of the emerging international infrastructure firms will depend on their ability to maintain a reputation for reliability in all countries, leading them to become world citizens not to be feared by individual countries.

Can private infrastructure last?

While government can pursue all its social objectives for infrastructure provision under private ownership, important policy issues exist because many users are dependent on a common facility—such as an electricity network—that does not face head-to-head competition. Whoever controls such a "natural" monopoly can extract excessive profits (rents) from it. The network owners, consumers, and the body politic all try to get their hands on these rents. Therefore, a sustainable ownership arrangement requires a rent-sharing system that protects consumers, provides owners with incentives to operate the network efficiently, and reduces the temptation for governments to exploit monopoly rents for political advantage. While in theory such arrangements can be implemented through well-designed regulatory frameworks, history shows satisfactory regulatory regimes have rarely been achieved.

Regulatory pressures

Pressures for some kind of regulatory mechanism arise soon after a new infrastructure network is set up. Rail, gas, and water networks all emerged in the first decades of the nineteenth century in Britain. The first attempts to limit wasteful competition in the water and gas networks by establishing monopoly franchises started around 1820. Rent regulation arrived with Gladstone's 1844 Railway Act, followed by dividend limits (10 percent) for gas and water companies under the Gas Works and Water Works Acts of 1847. Similarly, limits on prices or returns were introduced in Canada (Toronto) for town gas and in some U.S. railroad statutes in mid-century.

The notion of a "fair" price or return has played a role in all regulatory systems. It has always been

clear that price or return regulation risked undermining the incentives for firms to invest and operate efficiently, and various mechanisms have been used to cope with the tradeoff between fairness and efficiency. When prices are controlled, quantity and quality are regulated. Typically, service and access obligations are embedded in all regulatory mechanisms. But this opens the door to endless arguments and policies about whom to serve and at what price. There's a good chance, then, that governments will introduce inefficient and unjustified subsidies and cross-subsidies for different customer groups.

The institutional solutions to regulatory goals have varied according to the balance of interests in each situation and the country's political and administrative system. Ownership may be private, mixed, or public. Regulatory powers rest in varying degrees in the legislative, executive, or judicial branch of the government. Separate regulatory institutions may exist. Different levels of government may be involved—municipal, provincial, or central.

Points in a continuum

These various institutional arrangements are points on a continuum. All interfere with firm-level pricing and investment decisions. At one end of the spectrum, full nationalization places all decisions in the hands of the state. Decisions are not transparent, and consumers are not represented directly, but only in their capacity as voters. Further along the spectrum, the state establishes autonomous corporations governed by performance contracts, which generally specify key pricing and investment decisions. Transparency is enhanced. Still further along, private firms may be subject to regulatory oversight by agencies that influence price and investment decisions, as in the United States. At the other end of the spectrum, in French municipalities, no separate regulatory agency exists. As in the case of nationalized firms, consumers can exercise their rights through complaints and by voting in mayoral elections.

No best solution

Results of empirical work on the merits of alternative arrangements remain inconclusive. Given that different combinations of ownership and oversight exhibit similar problems, it is not clear why and how performance should systematically vary among them. However, it is clear that regulatory systems are costly and often fail to achieve their goals. Recent estimates of the benefits derived from deregulation in the United States amounted to some 9 percent of the output of formerly regulated infrastructure sectors (Winston 1993).

For this reason, another turn in the privatization-regulation-nationalization cycle is possible. As in the past, regulation imposed on private firms tends to weaken their incentives to perform and involves "the public" in decisions about levels of income and subsidy. When firms receive insufficient revenues and when prices are kept artificially low, demand will be large and supply will be insufficient and of poor quality. More government intervention culminating in nationalization will cloak the problem. When the public purse can no longer pay the level of subsidies required to get acceptable service, privatization will once again be seen as a remedy. And so it could go on.

Can the costs and failures of regulation be reduced?

The only way to reduce the need for administrative solutions to the rent-sharing problem is to expand the scope for more automatic "regulation" through competition. Competitive solutions are feasible where consumers of infrastructure services can migrate to the service area of their choice (for example, residential developments) and where competition among providers can be introduced (for example, among airlines). Technological change and innovative policies for services until now considered natural monopolies have further enlarged the scope for head-to-head competition. Prominent examples are long-distance telecommunications and power generation. The best hope for subjecting remaining inescapable natural monopolies to competition lies in repeated franchise bidding, under which monopoly service franchises are auctioned off from time to time and awarded to the firm offering acceptable service on the best terms—for example, at the lowest price.

Franchise bidding can clearly be effective for infrastructure services that do not require investments tied to a particular service area—for example, many forms of transport services or solid waste collection. Problems may arise for the remaining natural monopoly services—mainly water pipelines and power transmission and distribution. Problems in telecommunications, gas pipelines, and railways tend to be less severe because of the stronger intermodal competition.

But is franchise bidding really substantially different from utility regulation? First, no contract can cover every conceivable circumstance. Therefore, either party may have (good or bad) reasons to renegotiate after the award. Second, at the time of transfer of the franchise to another firm, the assets to be transferred need to be correctly valued to ensure that the incumbent maintains them in good condition (Laffont and Tirole 1993). The franchiser therefore needs to maintain a capability to prepare, award, monitor, and renegotiate the contract, including the capability of valuing the assets fairly. Such a capability is similar to that required for "normal" regulation. Franchise bidding will only be superior if abuses after franchise award are contained and repeated bidding is practical.

Reputation and competition for the market

Whether contracting parties abuse their position depends on their interest in maintaining a good reputation and on the availability of information crucial for judging adherence to the contract. A review of the experience of over 3,000 cable TV franchises in the United States (1980–86) found fewer than sixty cases of operators reneging on contracts (Zupan 1989). Reputation was found to be the main explanation for companies not exploiting loopholes in their contracts.

The key problem of repeated bidding schemes—asset valuation—may be more difficult to deal with. In particular, it may require a preference in favor of the incumbent at the time of franchise rebidding (Laffont and Tirole 1993). One example of a successful system that allows rebidding but provides strong incentives favoring incumbents is that of the private French water companies, established in the nineteenth century. Despite incentives to collude and to abuse the nontransparent and discretionary relationship with municipalities, they have developed a worldwide reputation for quality and efficiency and simultaneously a relationship with municipalities that has protected them from attempts at nationalization.

Implications for policymakers and financial markets

For the policymaker interested in efficiency gains, the pursuit of private infrastructure constitutes a risk-minimizing strategy. Private solutions are generally no worse than public ones, but hold the potential for greater benefit through competition. If policymakers follow the current fashion to promote private competitive franchises throughout the world, the emerging international infrastructure industry will grow. In its wake, private cross-border flows financing infrastructure will increase. In the nineteenth century, annual cross-border flows for private infrastructure projects amounted to the equivalent of several hundred billion dollars (adjusting for output growth and inflation)—compared with only US$10 billion a year today.

References

Galal, Ahmed, Leroy R. Jones, Pankaj Tandon, and Ingo Vogelsang. 1994. *Welfare Consequences of Selling Public Enterprises.* New York: Oxford University Press.

Gomez-Ibanez, Jose, and John R. Meyer. 1993. *Going Private: The International Experience with Transport Privatisation.* Washington, D.C.: Brookings Institution.

Laffont, Jean-Jacques, and Jean Tirole. 1993. *A Theory of Incentives in Procurement and Regulation.* Cambridge, Mass.: MIT Press.

Winston, Clifford. 1993. "Economic Deregulation: Days of Reckoning for Microeconomists." *Journal of Economic Literature* 31 (3).

Zupan, Mark. 1989. "The Efficiency of Franchise Bidding Schemes in the Case of Cable Television." *Journal of Law and Economics* 32.

Michael Klein, Manager, Private Sector Development Department.
Neil Roger, Senior Economist, Private Sector Development Department.

This series is published to share ideas and invite discussion. It covers financial and private sector development as well as industry and energy. The views expressed are those of the authors and are not intended to represent an official statement of Bank policy or strategy. ♻ Printed on recycled paper.

Comments are welcome. Please call the FPD Note line to leave a message: 202-458-1111; or contact Suzanne Smith, editor, Room G8105, The World Bank, 1818 H Street, NW, Washington, DC 20433, or Internet address ssmith7@worldbank.org.