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Private Infrastructure

The Private Participation in Infrastructure (PPI) Project Database tracks infrastructure projects owned or managed by private companies in energy (electricity and natural gas transmission and distribution), telecommunications, transport, and water and sewerage. For more information on the database see the Web site at http://www.worldbank.org/html/fpd/privatesector/PPIDBweb/Intro.htm).

The 2000 update of the PPI Project Database was cofinanced by the Public-Private Infrastructure Advisory Facility (PPIAF), a multidonor technical assistance program (http://www.ppiaf.org).

A Review of Projects with Private Participation, 1990–2000

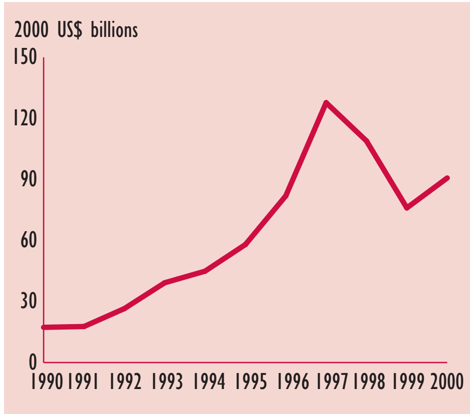
Drawing on the World Bank's Private Participation in Infrastructure Project Database, this Note provides an overview of private activity in infrastructure in developing countries between 1990 and 2000. Three main trends characterized that decade: Private activity in infrastructure grew each year except 1998 and 1999. Most developing countries introduced some form of private activity in infrastructure. But Latin America and East Asia captured most of the investment.

The 1990s marked the reemergence of private participation in infrastructure in the developing world after decades of nationalization and public sector management. Between 1990 and 2000, 130 developing countries had infrastructure projects with private participation, and 54 of them introduced private participation in at least three infrastructure sectors. During that decade developing country governments transferred to the private sector the operating or construction risk, or both, for more than 2,300 infrastructure projects and attracted investment commitments of almost US$690 billion.[1] Those projects were implemented under a range of schemes: management contracts, divestitures, and greenfield facilities (build-operate-own contracts, build-operate-transfer contracts, and merchant facilities).

Recovery of private activity

Investment flows to infrastructure projects with private participation boomed in 1990–97, rising from US$17 billion a year to US$128 billion (figure 1). They then declined by 15 percent in 1998 and 30 percent in 1999 as a result of the 1998–99 financial crises in developing countries. Investment flows grew by roughly 19 percent in 2000.

Figure 1 Investment in infrastructure projects with private participation in developing countries, 1990–2000



Source: PPI Project Database.

Europe and Central Asia accounted for much of the recovery in 2000. In that region

Table 1 Investment in infrastructure projects with private participation in developing countries, by region or sector, 1990–2000 (2000 US$ billions)

Region or sector	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
East Asia and Pacific	2.6	4.1	9.3	14.2	18.0	24.4	32.7	40.5	12.2	16.5	19.9	194.2
Europe and Central Asia	0.1	0.3	1.3	1.6	4.2	9.1	12.1	15.3	12.5	9.8	22.2	88.6
Latin America and the Caribbean	14.2	12.4	15.8	18.6	18.7	19.2	28.0	52.8	75.1	37.9	36.6	329.2
Middle East and North Africa	0.0	0.0	0.0	3.5	0.3	0.1	0.4	5.4	3.5	2.7	4.3	20.3
South Asia	0.4	0.8	0.1	1.3	3.3	4.3	7.2	8.9	2.7	4.4	4.6	37.9
Sub-Saharan Africa	0.1	0.0	0.1	0.0	0.8	0.8	1.5	4.6	2.6	4.6	3.1	18.2
Electricity	1.2	1.3	8.7	10.8	14.3	20.3	30.9	47.3	23.9	14.0	26.4	199.1
Natural gas transmission and distribution	0.0	0.0	3.8	4.5	1.8	4.0	2.9	3.3	6.3	3.6	2.2	32.4
Telecommunications	6.0	13.1	7.6	10.6	19.7	20.3	29.3	47.0	56.9	42.3	44.4	297.2
Transport	10.0	3.2	4.5	5.6	8.6	11.7	16.9	21.1	19.4	9.2	13.2	123.6
Water and sewerage	0.0	0.1	1.9	7.7	0.5	1.7	1.9	9.0	2.3	6.8	4.5	36.5
Total	17.3	17.7	26.5	39.2	44.9	58.0	81.9	127.6	108.9	76.0	90.7	688.7

Source: PPI Project Database.

investment flows grew from less than US$10 billion in 1999 to more than US$22 billion in 2000, driven mainly by mobile telecommunications licenses and by large power plants in Turkey (table 1). Private activity in East Asia and Pacific also contributed to the recovery. Investment flows in the region increased from less than US$17 billion in 1999 to almost US$20 billion in 2000, driven mainly by electricity generation and transport projects. In Latin America and the Caribbean private activity dropped from US$38 billion in 1999 to US$37 billion in 2000.

Electricity and transport, which suffered most from the financial crises of 1998–99, led the revival of private activity in 2000. After falling from US$24 billion in 1998 to US$14 billion in 1999, investment flows to electricity recovered to more than US$26 billion in 2000, the third highest annual level in 1990–2000. In transport, investment flows plummeted from US$19 billion in 1998 to US$9 billion in 1999, then rose to US$13 billion in 2000. Private activity in telecommunications also recovered, although at a much slower pace. After falling from US$57 billion in 1998 to US$42 billion in 1999, investment flows to the sector reached US$44 billion in 2000.

Sectoral trends

Telecommunications and electricity led the growth in private activity in developing countries in 1990–2000 (figure 2). During this period 108 developing countries opened their telecommunications sector to private activity, raising US$297 billion in investment, 43 percent of the total investment in private infrastructure projects. And 79 developing countries introduced private participation in electricity, which accounted for US$199 billion in investment flows, 29 percent of the total.

In transport, the third most active sector in the past decade, 64 developing countries awarded projects to the private sector. Transport attracted US$124 billion in investment commitments, 18 percent of the total. In water and sewerage—where technological change has been less pronounced, political barriers to reform can be strong, and subnational governments often play a major role—private activity grew more slowly. Thirty-seven developing countries allowed private participation in the sector, which accounted for investment flows of US$37 billion, 5 percent of the total. In addition, eight developing economies awarded 11 multisector projects that combined the provision of electricity and water services. These projects involved investment commitments of US$6 billion.

Regional trends

Latin America and the Caribbean and East Asia and Pacific led the developing regions in private infrastructure activity in 1990–2000 (figure 3). Latin America and the Caribbean accounted for 48 percent of the investment commitments in infrastructure projects with private participation, while East Asia and Pacific represented 28 percent. Europe and Central Asia, in third place, captured 13 percent.

The other regions also opened infrastructure sectors to private participation in 1990–2000. Investment flows to private infrastructure projects in South Asia added up to US$38 billion, 5 percent of the total in developing countries. In the Middle East and North Africa investment in private infrastructure projects totaled US$20 billion, while in Sub-Saharan Africa it amounted to US$18 billion. Each of these regions accounted for 3 percent of total investment.

Differing approaches

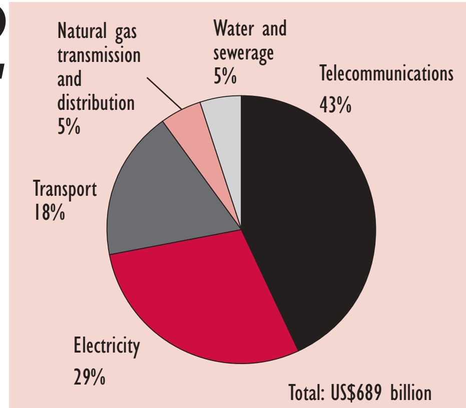
Developing regions emphasized different types of private participation in infrastructure (figure 4). Latin America and Europe and Central Asia focused on divestitures and management and operation contracts with major capital expenditure (that is, concessions). These were part of deeper sectoral reforms aimed at redefining the role of the state and putting infrastructure on a more commercial footing. Divestitures and concessions accounted for 78 percent of total investment in private infrastructure projects in Latin America and 70 percent in Europe and Central Asia.

East and South Asia emphasized creating new assets through greenfield projects that serve or complement public sector providers, with less attention to deeper or broader sectoral reforms. Greenfield projects accounted for 57 percent of investment in private infrastructure projects in East Asia and 86 percent in South Asia in 1990–2000.

Country concentrations

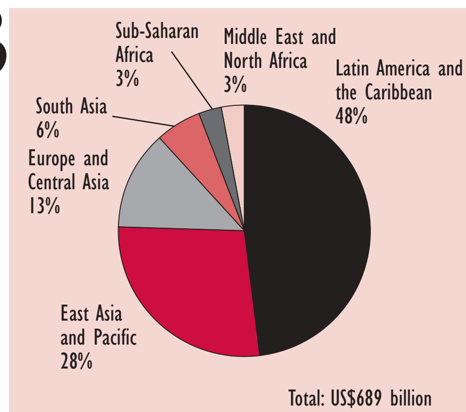
Middle-income economies captured most of the investment flows to private infrastructure proj-

Figure 2
Cumulative investment in infrastructure projects with private participation in developing countries, by sector, 1990–2000



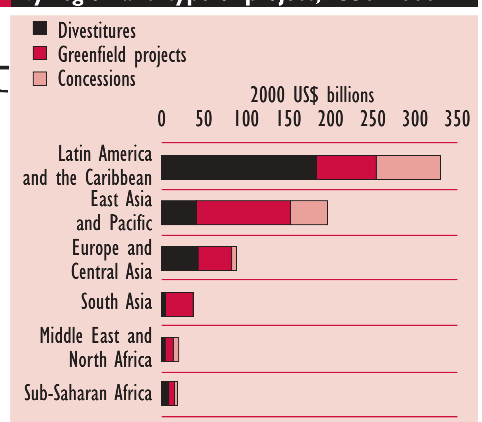
Source: PPI Project Database.

Figure 3
Cumulative investment in infrastructure projects with private participation in developing countries, by region, 1990–2000



Source: PPI Project Database.

Figure 4
Investment in infrastructure projects with private participation in developing countries, by region and type of project, 1990–2000



Source: PPI Project Database.

Table 2
Top 10 developing countries by total investment in infrastructure projects with private participation, 1990–2000

Country	Total investment (2000 US$ billions)	Projects
Brazil	123	195
Argentina	78	163
Mexico	55	128
China	51	253
Malaysia	34	59
Philippines	32	65
Korea, Rep. of	30	24
Indonesia	27	60
India	25	110
Thailand	21	68
Total for top 10	474	1,125

Note: Data may not sum to totals because of multicountry projects.
Source: PPI Project Database.

Table 3
Top 10 developing countries by per capita investment in infrastructure projects with private participation, 1990–2000

Country	Per capita investment (2000 US$)	Total investment (2000 US$ billions)
Argentina	2,117	78
Hungary	1,535	15
Malaysia	1,469	34
Panama	1,400	4
Chile	1,230	19
Czech Republic	980	10
Brazil	723	123
Estonia	716	1
Belize	688	0.2
Korea, Rep. of	632	30

Source: PPI Project Database.

ects in developing countries. By 2000, 29 of the 30 upper-middle-income countries had private participation in infrastructure; these accounted for 59 percent of total investment flows and 38 percent of projects in 1990–2000. Lower-middle-income countries also had significant private participation, with 44 of them attracting 30 percent of total investment over the period.

Private participation in infrastructure also spread rapidly among low-income countries. In the first half of the 1990s only 30 low-income countries opened their infrastructure sectors to private participation. By 2000, however, 57 low-income countries had awarded private infrastructure projects, and 16 had private participation in three or four sectors. In 1990–2000 low-income countries accounted for 11 percent of total investment flows and 18 percent of projects. But these numbers probably understate the private activity in low-income countries. The data exclude small-scale private providers, which often play a relatively large role in these countries (for example, small power suppliers in Cambodia and Yemen and private water vendors in most developing countries).

Despite the rapid spread of private activity in infrastructure, a few developing countries garnered most of the investment. The top 10 ranked by investment in projects with private participation accounted for 68 percent of total investment and 48 percent of projects in 1990–2000. This top 10 list consists of the largest developing economies, such as Argentina, Brazil, China, India, the Republic of Korea, and Mexico (table 2). When investment is expressed in per capita terms, however, the top 10 list changes substantially. Measuring private participation in infrastructure this way ranks several small economies—such as Belize, Estonia, and Panama—among the most active countries (table 3).

Note

1. All dollar amounts are in 2000 U.S. dollars. Nominal figures have been deflated using the U.S. consumer price index. The PPI Project Database records total investment in infrastructure projects with private participation, not private investment alone. Investment commitments include expenditures on facility expansion, divestiture revenues, and license or canon fees paid by private sponsors to governments. The data include 47 projects that were canceled by 2000, which account for US$19 billion in investment commitments.

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Telephone:
001 202 458 7281
Fax:
001 202 522 3181
Email:
ssmith7@worldbank.org

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