

privatesector

Private Infrastructure

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The PPI database tracks infrastructure projects newly owned or managed by private companies that reached financial closure in 1990–99 in energy (electricity and natural gas transmission and distribution), telecommunications, transport, and water.

Private Activity Fell by 30 Percent in 1999

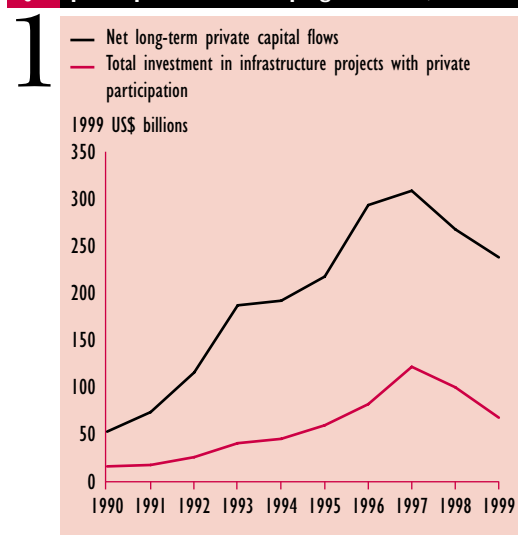
This Note, which draws on the World Bank's Private Participation in Infrastructure (PPI) database, provides an overview of recent trends in infrastructure projects with private participation in developing countries. Three main trends have emerged during the past decade. Private activity in infrastructure grew dramatically between 1990 and 1997, but declined because of the financial crises of 1998–99. Most developing countries have some private activity in infrastructure, but Latin America and East Asia dominate investment.

As liberalization and privatization policies have swept infrastructure activities in developing countries throughout the 1990s, the private sector has become an important financier and long-term operator. Analysis of projects in the PPI database shows that during 1990–99 the private sector undertook the operating or construction risk, or both, of more than 1,900 projects in developing countries, a total investment of almost US\$580 billion.¹ Of this amount, more than two-thirds went to facility construction, expansion, and modernization, and the remaining third went to the government as sale proceeds (divestiture revenues, license fees, or canon commitments).²

Effects of the economic crises

Private activity boomed in 1990–97, rising from less than US\$16 billion to more than US\$120 billion (see figure 1). It then declined by roughly 20 percent in 1998 and 30 percent in 1999. As the financial

Figure 1
Net long-term private capital flows to developing countries and total investment in infrastructure projects with private participation in developing countries, 1990–99



Source: World Bank 2000 and PPI Project Database.



Box PPI Project Database: project criteria and database terminology

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Database coverage:

- Projects that have reached financial closure and directly or indirectly serve the public.
- Projects in electricity, natural gas (transmission and distribution), telecommunications, transport, and water sectors, but not movable assets, incinerators, stand-alone solid waster projects, and small projects such as windmills.
- Low and middle-income developing countries in 1999, as defined and classified by the World Bank.

Definition of private participation. The private company must assume operating risk during the operating period or assume development and operating risk during the contract period. A foreign state-owned company is considered a private entity.

Definition of a project unit. A corporate entity created to operate infrastructure facilities is considered a project. When two or more physical facilities are operated by the corporate entity, all are considered as one project.

Project types

- Operations and management contract. A private entity takes over the management of a state-owned enterprise for a given period. This category includes management contracts and leases.
- Operations and management contract with major capital expenditure. A private entity takes over the management of a state-owned enterprise for a given period during which it also assumes significant investment risk. This category includes concession-type contracts such as build-transfer-operate, build-lease-operate, and build-rehabilitate-operate-transfer contracts as applied to existing facilities.
- Greenfield project. A private entity or a public-private joint venture builds and operates a new facility. This category includes build-own-transfer and build-own-operate contracts as well as merchant power plants.

- Divestiture. A private consortium buys an equity stake in a state-owned enterprise. The private stake may or may not imply private management of the company.

Definition of financial closure. For greenfield projects, and for operations and management contracts with major capital expenditure, financial closure is defined as existence of a legally binding commitment of equity holders or debt financiers to provide or mobilize funding for the project. The funding must account for a significant part of the project cost, securing the construction of the facility. For operations and management contracts, a lease agreement or a contract authorizing the commencement of management or lease service must exist. For divestitures, the equity holders must have a legally binding commitment to acquire the assets of the facility.

Recording investments. Investments, privatization revenues, license fees, and canon commitments generally have been recorded on a commitment basis in the year of financial closure (for which data are typically readily available). Actual disbursements have not been tracked. Where privatizations and new investments are phased and data were available at financial closure, they are recorded in phases. When license fees and canon commitments were due over the concession period, their net present values were recorded in the year of financial closure.

Sources: World Wide Web, commercial databases, specialized publications, developers, sponsors, and regulatory agencies.

Web site: <http://www.worldbank.org/html/fpd/privatesector/PPIDBweb/Intro.htm>

Contact: The database is maintained by the Private Provision of Public Services Group of the World Bank. For more information, contact Shokraneh Minovi at 202 473 0012 or sminovi@worldbank.org.

crises curbed the growth rate of developing economies, their demand for infrastructure fell. The GDP growth rate of developing countries, excluding transitional economies, decreased from 5.4 percent in 1990–97 to 1.6 percent in 1998 and 3.5 percent in 1999 (World Bank 2000). Private capital flows to developing countries also declined. Net long-term private flows to developing countries in 1999 were only three-quarters of what they had been at the peak in 1997 (see figure 1). The surviving resources for private infrastructure were mainly directed to projects with political risk insurance or guarantees from multilateral development banks.

Latin America and East Asia were worst affected. In Latin America and the Caribbean investment fell from a high of US\$71 billion in 1998 to US\$36 billion in 1999 (table 1). Activity in 1998 was sustained by the Brazilian telecommunications privatization, which was severely afflicted by the crisis. In 1999 the lack of any major privatization program and the delay of greenfield projects reduced activity in the region. In East Asia and the Pacific private activity decreased from US\$39 billion in 1997 to less than US\$10 billion in 1998 (see table 1) due to the cancellation or postponement of many high-profile projects in the crisis countries and reduced

Investment in infrastructure projects with private participation in developing countries by sector and region, 1990–99 (1999 US\$ billions)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Sector											
Telecommunications	6.7	13.3	8.1	11.0	19.6	24.0	29.9	42.8	54.3	39.2	249.0
Energy	1.6	1.2	12.1	14.6	17.0	24.1	33.7	47.9	25.7	14.9	192.8
Transport	8.0	3.1	4.2	7.7	8.2	10.1	16.5	22.4	17.6	8.4	106.1
Water and sanitation	—	0.1	1.9	7.5	0.7	1.7	2.2	8.9	2.6	5.9	31.4
Region											
East Asia and Pacific	2.6	4.1	8.9	16.2	17.7	23.4	33.4	38.8	9.5	14.1	168.6
Europe and Central Asia	0.1	0.3	1.3	1.5	3.9	8.6	11.6	15.1	11.5	8.7	62.5
Latin America and the Caribbean	13.2	12.6	15.8	18.5	18.9	19.4	28.8	51.1	71.0	36.3	285.6
Middle East and North Africa	0.0	—	0.0	3.4	0.3	0.1	0.4	5.3	3.5	2.4	15.3
South Asia	0.3	0.8	0.1	1.3	4.0	7.6	6.1	7.1	2.3	4.0	33.5
Sub-Saharan Africa	0.1	—	0.1	0.0	0.7	0.8	2.1	4.5	2.4	2.9	13.6
Total	16.3	17.8	26.1	40.9	45.5	59.9	82.3	121.9	100.2	68.5	579.3

— None.

Note: 0.0 means zero or less than half the unit shown. Data may not sum to totals because of rounding.

Source: PPI Project Database.

activity in China. However, there was a significant recovery to US\$14 billion in 1999.

While all infrastructure sectors have been affected, the impact has been worst in energy and transport, in which private activity in 1999 was about one-third that in 1997 (see table 1). In contrast, private activity in telecommunications and water has started to recover. If the US\$19 billion proceeds from Brazil's Telebras privatization were excluded, private activity in telecommunications would have been 10 percent higher in 1999 than 1998. This recovery is driven by a strong demand in mobile services and equipment suppliers who are financing a significant portion of the network expansion. Private activity in the water sector also grew to US\$6 billion in 1999 from US\$2.6 billion in 1998.

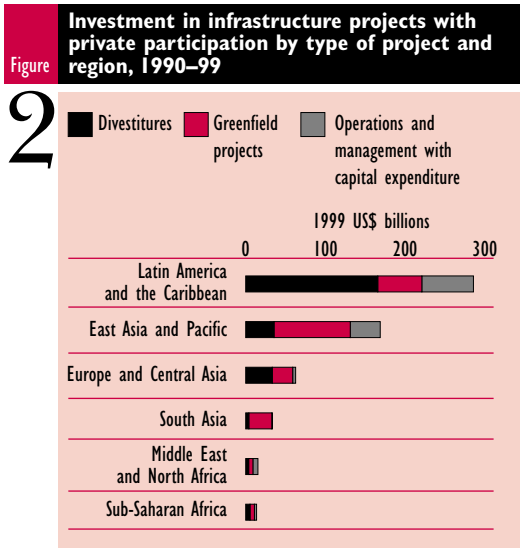
Regional trends

Latin America and the Caribbean and East Asia led the growth in private infrastructure activity in the 1990s. Latin America and the Caribbean accounted for almost half of the investment commitments in infrastructure projects with private participation, while East Asia captured 30 percent and Europe and Central Asia, in third place, captured about 10 percent. Investment in those regions was mainly concentrated in telecommunications and energy, which together accounted for 75 percent of private activity in Latin America, 67 percent in East Asia, and 92 percent in Europe and Central Asia.

Approaches to private activity in infrastructure have differed among the leading regions. Latin America and Europe and Central Asia have mainly carried out divestitures as part of broader sector reforms aimed at creating competitive market structures. In these regions, divestitures accounted for more than half of the regional activity (figure 2). East Asia focused on asset creation through greenfield projects to keep pace with demand growth, but with limited attention to reform of underlying sectors. Greenfield projects represented more than half of investment commitments in that region in 1990–99. The downsides of the Asia approach (unresolved sector deficiencies, demand risk left with the government, contingency liabilities created by take-or-pay agreements or traffic guarantees) which were exacerbated by the financial crisis in the region, have made governments rethink their strategy. In 1999, for the first time, private activity in divestitures exceeded that in greenfield projects in the region.

Country trends

During 1990–99, 121 developing countries had some private activity in at least one infrastructure sector, and 20 had private activity in all four. Fifty of these countries were lower-income, 48 lower-middle income, and 23 upper-middle income. However, the upper-middle income countries attracted most of the private activity (60 percent), followed by lower-



Source: PPI Project Database.

middle income countries (20 percent). Of the low-income countries, China, India, and Indonesia have attracted most of the private investment.

Investment in infrastructure projects with private participation has been concentrated in a few countries, but it is spreading. The top 10 countries accounted for 97 percent of all private activity in infrastructure sectors in 1990, but they accounted for 70 percent by 1999. This decrease indicates that more developing countries are starting to embrace private participation. Since the mid-1990s, more than 50 developing countries have had new private activity in at least one sector each year and more than 10 have had new activity in three to four sectors each year.

Looking ahead

Private infrastructure activity in developing economies will revive as they recover from the economic crises of the late 1990s and the fundamental reasons for long-term private activity—increasing demand for infrastructure, sector inefficiencies, and public budget constraints—continue. Private activity in the coming decade, however, will differ from the pre-crisis activity in four ways. First, new capacity requirements will be smaller: it is predicted that growth in developing countries (excluding transition economies) will be slower in 2002–08 than was predicted before the crises (World Bank 2000). Second, private activity in East Asia, particularly in energy and telecommunications, will take place in more competitive environ-

ments as countries reform their regulatory systems, create competitive market structures, and privatize their state enterprises. The combined effects of lower growth rates and efficiency gains from competitive market structures may reduce new investment requirements in Asia by between 25 and 30 percent in 1998–2005 compared with the pre-crisis estimates (Asia Development Bank 1999). Third, private activity in Latin America, which will concentrate on greenfield projects and additional investments in privatized companies, will occur in more competitive markets as countries improve their regulatory systems, reduce entry barriers, and finish privatizing state enterprises. Fourth, infrastructure financiers will be more cautious and focus more on project quality and long-term project risks than they did during the 1990s. Overall, the financial crises have allowed governments and private sponsors to refocus on the fundamentals. This should lead to more efficient and self-sustainable infrastructure sectors, reduced political and regulatory risk, and less exposure to the consequences of government planning errors and state enterprise inefficiency.

Notes

1. All dollar amounts are in 1999 US dollars. PPI Database figures for project investments refer to total investment, not private investment alone.
2. This figure excludes license fees that are calculated as a percentage of revenues (revenue-sharing arrangements). These arrangements have been widely used in East Asia for telecommunications projects.

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