

# PUBLIC POLICY FOR THE Private sector

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## Private Participation in Telecommunications—Recent Trends

The World Bank's Private Participation in Infrastructure (PPI) Project Database records all developing country projects owned or managed by private companies in water, energy, transport, and telecommunications that reached financial closure between 1990 and 1998. This Note draws on the database to show trends in telecommunications projects. The database covers only projects that involve basic telephone services (fixed local and long distance) or mobile services (digital or analog cellular and personal and digital communications services).

The liberalization of telecommunications that started in a few countries in the 1980s turned into a worldwide trend in the 1990s. More than ninety developing economies opened their telecommunications sector to private participation between 1990 and 1998. These countries transferred to the private sector the operating or construction risk, or both, of more than 500 projects. The transactions involved investment commitments of US\$214 billion (figure 1).<sup>1</sup> Two-thirds of that amount has been invested in expanding and modernizing networks; the other third has gone to governments as divestiture revenues or license fees.

Driving this liberalization has been the desire to expand and improve service. Tight public sector budgets have prompted governments to turn to private investment for network expansion and modernization, and to reform legal and regulatory frameworks to allow private participation.

The development of new technologies has facilitated liberalization by reducing entry costs, creating new services (mobile phone, paging, Internet), and undermining service segmentation. And the reforms have been strengthened by such international agreements as the World Trade Organization's Basic Telecommunications Agreement, under which seventy-two countries, including forty-four developing economies, subscribed binding commitments to significantly expand competition.

### Major trends

The World Bank's PPI Project Database shows strong, steady growth in private participation in telecommunications, whether measured in projects, countries, or value of investments (box 1). The data reflect three main trends:

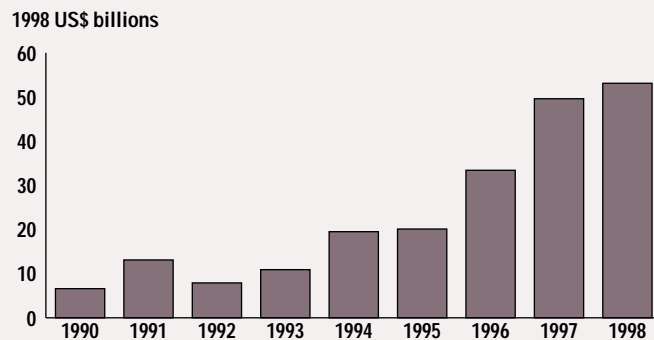
- Private participation takes place in increasingly competitive market structures.
- Latin America and the Caribbean leads in private participation in the sector.
- Divestitures and greenfield projects outnumber operations and management contracts.

### Competitive market structures emerge

In most developing countries legal barriers to entry continue to hinder competition in the sector. But governments are easing these barriers. By 1998 most developing economies with private participation in the sector had exposed mobile phone services to competition, though they were taking a more cautious approach to basic services.

Between 1990 and 1998, 311 private operators started to provide mobile services on a stand-alone basis or along with basic services in ninety-

**FIGURE 1** TOTAL INVESTMENT IN TELECOMMUNICATIONS PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES, 1990–98



Source: PPI Project Database.



**BOX 1 PPI PROJECT DATABASE: PROJECT CRITERIA AND DATABASE TERMINOLOGY***Database coverage*

- Projects that have reached financial closure and directly or indirectly serve the public.
- Projects in water, transport, electricity, telecommunications, and natural gas.
- The telecommunications sector includes local, national, and international phone services and mobile phone services. Other services (Internet, paging, trunking, and value added services) and private networks are excluded.
- Low- and middle-income developing countries, 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 the 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 of investments.* Investments and privatization revenues 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.

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

*Contact.* The database is maintained by the Private Participation in Infrastructure Group of the World Bank. For more information contact Shokraneh Minovi at 202 473 0012 or sminovi@worldbank.org.

four developing countries (table 1). Twenty-eight developing countries had between three and six competing mobile operators, and thirty-eight had duopoly mobile phone markets. Many of these countries have also encouraged competition for the market by using competitive bidding to award mobile phone licenses. In most countries competition has benefited customers by pushing down tariffs, expanding networks, and improving service. As countries award more licenses in the coming years, competition will increase.

Competition in long distance has started to emerge. Of the forty-two developing countries with private involvement in long-distance services, twelve allowed competition by 1998—ranging from unrestricted entry (Chile, Mexico) to managed competition (Republic of Korea, Malaysia) to duopoly (Brazil, Ghana). The rest awarded exclusive licenses to privatized incumbent operators. In

countries allowing unrestricted competition, consumers have benefited from significant tariff cuts. Most countries with little or no competition are concentrating in the short term on generating a surplus to rapidly expand the network rather than on reducing prices.

Developing economies are also beginning to introduce competition in local service. Of the fifty-five countries with private operators in local service, fifteen endorsed some competition by 1998. Some have allowed free entry (Chile, El Salvador, Guatemala, Mexico); others have introduced controlled competition (Malaysia, Sri Lanka) or transitional duopolies (Brazil, Ghana, India). The other forty countries have either awarded monopoly rights to privatized incumbent operators (Côte d'Ivoire, Estonia, Pakistan, Venezuela) or introduced private investment to complement the incumbent's (Bangladesh, Indonesia, Thailand).

### Latin America leads the way

A regional breakdown of projects shows a marked concentration of investments in Latin America and the Caribbean (52 percent). Investments are smaller but still significant in East Asia and the Pacific (20 percent), Europe and Central Asia (15 percent), and South Asia (9 percent; table 2). Most Latin American countries have made telecommunications an entirely private activity during the 1990s. In East and South Asia the private sector has begun to make inroads into a business dominated by state-owned enterprises. In Sub-Saharan Africa private participation is still small, but reflects significant advances in opening the mobile phone market—and, in some countries, the entire sector—to private investment. Private participation remains nascent in the Middle East and North Africa, with limited progress in opening the sector to private capital and in implementing cost-recovering tariffs in basic services.

Although investment in projects with private participation has been concentrated in a few countries, it is beginning to spread. The top ten countries accounted for 99 percent of total investments in 1990, but only 81 percent in 1998. These countries include Argentina, Brazil, Hungary, Indonesia, Malaysia, Mexico, and Thailand, which also account for a significant share of developing country income.

### Divestitures and greenfield projects on top

Divestitures and greenfield projects are the dominant form of private participation in telecommunications, similar to the pattern in other infrastructure sectors such as electricity and natural gas. Of the US\$214 billion committed to telecommunications projects with private participation, about US\$79 billion has gone to 350 greenfield projects and US\$126 billion to 161 divestitures. The resources captured by divestitures have been directed to network expansion and modernization (50 percent) and divestiture revenues (50 percent).

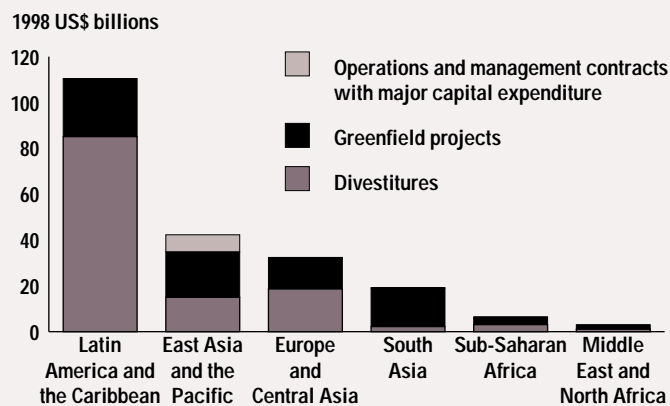
Operations and management contracts with major capital expenditure are rare in telecom-

**TABLE 1** TOTAL INVESTMENT IN TELECOMMUNICATIONS PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES BY TYPE OF SERVICE, 1990–98

Service	Projects	Total investment (1998 US\$ millions)
Mobile only	262	66,023
Long distance, local, and mobile	26	54,045
Local and long distance	29	35,733
Local only	150	34,946
Long distance only	31	14,250
Local and mobile	12	6,295
Long distance and mobile	11	2,752
<b>Total</b>	<b>521</b>	<b>214,043</b>

Source: PPI Project Database.

**FIGURE 2** TOTAL INVESTMENT IN TELECOMMUNICATIONS PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES BY REGION AND TYPE, 1990–98



Source: PPI Project Database.

munications. Only eight such projects had been awarded by 1998, five in Thailand and one each in Indonesia, the Lao People's Democratic Republic, and Ukraine. Management contracts without investment commitments were limited to two projects (Kiribati and Mongolia).

Regional approaches differ. Latin America and Europe and Central Asia emphasize divestitures to transfer basic service operations to the private sector (figure 2). Most of these divestitures include transitional monopolies in basic services to ensure rapid expansion of the local network. In Latin America 77 percent of the investment in projects with private participation went to divestitures, and



**TABLE 2 TELECOMMUNICATIONS PROJECTS WITH PRIVATE PARTICIPATION IN DEVELOPING COUNTRIES BY REGION, 1990–98**

Region	Countries	Projects	Total investment (1998 US\$ millions)
East Asia and the Pacific	14	64	42,269
Europe and Central Asia	24	254	32,382
Latin America and the Caribbean	22	99	110,919
Middle East and North Africa	6	13	2,979
South Asia	4	41	19,073
Sub-Saharan Africa	24	50	6,420
<b>Total</b>	<b>94</b>	<b>521</b>	<b>214,043</b>

Source: PPI Project Database.

in Europe and Central Asia 58 percent. Greenfield projects, which accounted for 23 percent of the investment in Latin America and 42 percent in Europe and Central Asia, are relied on mainly to introduce mobile phone services.

East and South Asia have opted primarily for greenfield projects, aimed at complementing the incumbent's investments, introducing some competition in basic services, and creating competitive mobile phone markets. Greenfield projects accounted for 47 percent of the investment in East Asia and 88 percent in South Asia. Divestitures, which capture 35 percent of the investment in East Asia and 12 percent in South Asia, are used mainly to raise capital for state-owned enterprises through public offerings.

Sub-Saharan Africa and the Middle East and North Africa also prefer greenfield projects, as a way to obtain mobile phone services. Greenfield projects accounted for 52 percent of the investment in Sub-Saharan Africa and 64 percent in the Middle East and North Africa. In Sub-Saharan Africa divestitures, capturing 48 percent of regional investment, follow the Latin American approach. In the Middle East and North Africa the only divestiture was for mobile phone services.

### Looking ahead

More and more governments recognize that introducing competitive markets is the best way to increase access to telecommunications services and improve their quality and affordability.

In Latin America the end of transitional monopolies in basic services is bringing a new wave of

reforms centered on competition. Most of the region's countries are following the Chilean market-oriented approach to creating competition, setting the ground rules by establishing pro-competitive entry policies, price structures, interconnection rules, and universal access strategies.

In Europe and Central Asia reforms in the European Union have underscored the need to accelerate liberalization. And the European Union has required countries applying for membership to align their telecommunications sector with its pro-competitive policy.

In Asia the 1997 financial crisis spotlighted the need to deepen reforms. China and India plan reforms that will expand the roles of competition and the private sector. Other major Asian economies are revising their approaches to private participation to create more sustainable environments.

Sub-Saharan Africa and the Middle East and North Africa too are beginning to embrace private involvement. At least twelve countries in these regions are set to liberalize their mobile phone markets by the end of 2000, and many others are analyzing strategies for privatizing their incumbent operators.

<sup>1</sup> All dollar amounts are in 1998 U.S. dollars. The PPI Project Database records total investment in infrastructure projects with private participation, not private investment alone. Investments in telecommunications projects include expenditures on network expansion, divestiture revenues, and license fees (see box 1).

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