

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

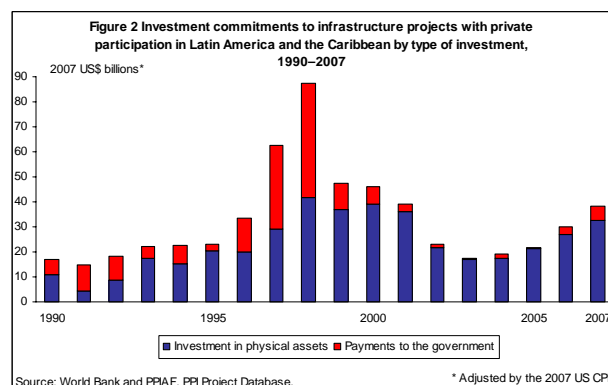
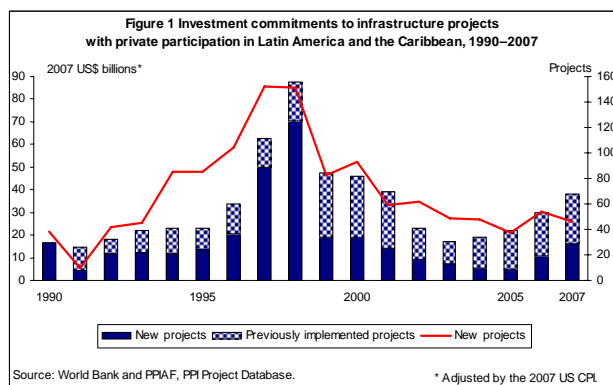
PPI data update note 16

December 2008

Investment commitments in Latin America and the Caribbean increased in 2007

Investment commitments to infrastructure projects with private participation in Latin America and the Caribbean grew by 28% to US\$38.3 billion in 2007, according to just-released data from the Private Participation in Infrastructure Project Database.¹ The region accounted for 24% of the year's total investment commitments in developing countries.

Despite having grown for four consecutive years, investment commitments (hereafter, *investment*) remained well below the region's peak levels reached in 1997–98 (figure 1). Investment in 2007 was just 44% of the peak in 1998. Previously implemented projects largely drove the 2007 investment. Projects reaching financial or contractual closure in 1990–2006 attracted US\$22.3 billion, while the 46 new projects implemented in 2007 accounted for US\$16 billion. Investment in physical assets amounted to US\$32.5 billion (figure 2). Indeed, if only investment in physical assets were counted—that is, excluding payments to the government (such as divestiture revenues and spectrum or concession fees)—investment in 2007 would be just 22% below the peak level of 1998.



As in previous years, Brazil and Mexico attracted most of the private activity in the region in 2007 (figure 3). Brazil accounted for 9 of the 46 new projects and 42% of investment, and Mexico for 14 new projects and 26% of investment. In Brazil new projects attracted just US\$5 billion of the

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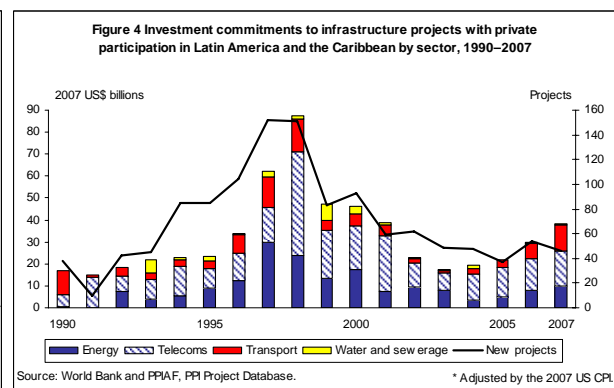
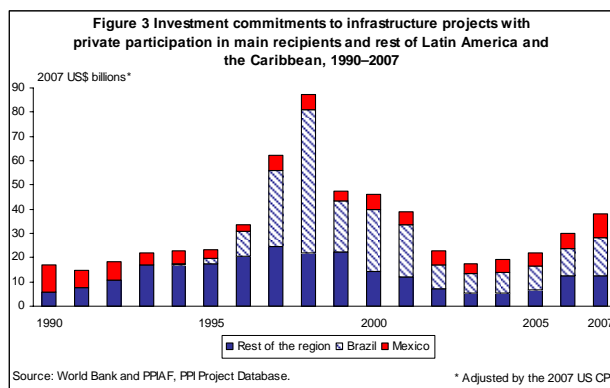
¹ Data on infrastructure projects with private participation include primarily medium-size and large projects as reported by the media and other public sources. Small-scale projects are generally not included because of lack of public information. Additional investments in some projects may have been omitted for the same reason. Barbados, the Czech Republic, Estonia, and Trinidad and Tobago became high-income countries according to the 2007 World Bank country classification (released in July 2007) and are therefore excluded from the PPI Project Database beginning with the 2007 update.

All dollar amounts in this note are expressed in 2007 U.S. dollars adjusted by using the 2007 U.S. consumer price index.

US\$15.9 billion in investment, while previously implemented projects accounted for the other US\$10.9 billion. In Mexico the situation was reversed: of the US\$9.9 billion in total investment, new projects accounted for US\$6.8 billion and previously implemented projects for US\$3.1 billion. The remaining US\$12.5 billion of investment in the region was spread among most of its other countries, with the biggest shares in Colombia (7%), Argentina (6%), and Peru (6%).²

Greenfield projects (build, own, operate [BOO] and build, operate, transfer [BOT] contracts and merchant projects) were the most common, representing more than 39% of investment and 29 of the 46 new projects. Divestitures accounted for 36% of investment, thanks primarily to investment in previously divested companies. Only two new divestitures were implemented in 2007 (both partial divestitures of generation companies in Colombia). Concessions (build, rehabilitate, operate, transfer [BROT] and rehabilitate, operate, transfer [ROT]) accounted for 25% of investment and 15 new projects.

Activity by sector. Telecommunications garnered the largest share of investment in 2007 (41%), followed by transport (31%), energy (26%), and water and sewerage (1%). Telecommunications investment grew for the fifth consecutive year, though it was still well below peak levels (figure 4), even when only investment in physical assets is compared. Transport investment almost doubled compared with the level in 2006, returning to a level close to those in 1997–98. Energy investment reached US\$10.1 billion, the highest level since 2001. Water and sewerage projects attracted US\$0.5 billion in new investment.



In *energy* eight countries implemented 15 new projects (table 1). Brazil closed on financing for five new hydropower plants with a total capacity of 2,078 megawatts (MW) and investment of US\$3.4 billion. Chile secured financing for two projects: the 158-MW La Confluencia hydropower plant and a 204-kilometer (km) electricity transmission line. Colombia sold through its local stock exchange 20% of Isagen, its state-owned electricity generation company, and divested the 52-MW Hidroprado hydropower plant. Guatemala began construction of the 94-MW Xacbal hydropower plant. Mexico did the same for the 450-MW Norte I power plant. Nicaragua secured financing for the 40-MW Eolico Amayo wind farm. Panama started construction of the 223-MW Changuinola hydropower plant and secured financing for the 81-MW Sante Fe wind farm. Peru began construction of the 210-MW El Platanal hydropower plant.

In *telecommunications* 21 countries reported investment. Most went to previously implemented projects, which attracted US\$15.5 billion, while two new mobile licenses amounted to US\$140 million. Digicel Group (Bermuda) was awarded both licenses: one in Honduras and the other in Suriname. Mobile and multiservice operators accounted for US\$12.3 billion of that investment of the total investment in the sector.

² When investment is reported for projects reaching closure in 1984–2007 rather than 1990–2007, Chile (which divested many of its electricity and telecommunications companies in the 1980s) has the fourth largest investment share in the region, after Brazil, Mexico, and Colombia.

In *transport* eight countries implemented 25 projects. In Argentina a 20-year seaport concession was signed for the Bahia Blanca container terminal. In Brazil three projects were implemented: a 25-year concession for State Highway MG-050, a 30-year concession for Norte Sul railroad, and a greenfield container terminal project. In Chile the 40-year BOT contract awarded in 2004 for Acceso Nororiente reached financial closure. In Colombia two contracts were signed, a 20-year concession for San Andres and Providencia Airports and a BOT contract for Bucaramanga Highway. In addition, five existing seaport projects obtained contract extensions and committed additional investments totaling US\$1.1 billion. In Costa Rica the 25-year BOT contract for San Jose Caldera highway reached financial closure. In Ecuador a 20-year concession for Guayaquil Port was implemented.

Mexico reached financial closure on nine road projects, involving 1,080 kilometers and investment of US\$6.1 billion. The first FARAC highway concession package accounted for US\$4.1 billion. This project includes four roads that were concessioned in the early 1990s but bought back by the government in 1997 because of financial difficulties experienced by the concessionaires. Six of the other Mexican road projects include government support through revenue guarantees or variable payments. Mexico also implemented a BOT contract for a seaport terminal and another for an airport cargo terminal.

In Peru the BOT contract for Muelle Sur port terminal and four road contracts were implemented. The road projects involve investment of US\$875 million and 2,000 kilometers. Three of these projects are sections of the Inter-Oceanic Highway connecting Brazil and Peru and include government payment commitments to cover the gap between project costs and revenues. The other road concession includes fixed government payments to cover the expected construction and operational costs.

In *water and sewerage* four new projects were implemented. In Brazil the provincial government of Rio Claro signed a 30-year BROT concession contract for the Rio Claro Sewerage System. Chile implemented a 15-year BROT concession for the Izarra de Lo Aguirre utility. In Mexico construction began on two BOT greenfield projects in the state of Queretaro—a water treatment plant and a wastewater treatment plant.

Potential projects. There are at least 36 projects that were awarded in 2007 but did not reach financial or contractual closure before the end of the year. Thirteen of these potential projects are in energy: 10 greenfield power plants (two hydropower plants for 3,140 MW in Brazil, a 9-MW wind power project in Costa Rica, two waste-to-energy projects in Mexico, a 54-MW hydropower plant in Panama, and four hydropower plants for 720 MW in Peru) and three new transmission lines (one in Argentina and two in Brazil). Two are in telecommunications: one in the Dominican Republic and another in Guatemala. In transport the potential projects include 15 roads (one in Argentina, seven in Brazil, two in Colombia, one in the Dominican Republic, three in Mexico, and one in Panama), three seaports (two in Colombia and one in Ecuador), and two airports in Chile. In water the one potential project is in Brazil, an 18-year BOT contract for sewerage service in the state of Bahia.

Canceled and distressed projects. In 2007, 11 projects were canceled or became distressed, while two previously distressed projects became operational, bringing the total number of those canceled or distressed in the region by 2007 to 117. These contracts represent 9.4% of all infrastructure projects with private participation, and 11% of investment commitments, in the region in 1990–2007.

In *energy* two contracts were canceled, one became distressed, and two others left the distressed status. Ecuador terminated a five-year management contract for CATEG, Guayaquil's electricity generation and distribution utility, signed in 2006. República Bolivariana de Venezuela nationalized Sistema Electrico de Nueva Esparta, an integrated electricity system serving 90,000 customers on the islands of Margarita, Coche, and Cubagna, which had been divested in 1998. This event was

part of a larger nationalization process in the country that has also affected other energy companies and other sectors.³ In the Dominican Republic the divestiture of Empresa Distribuidora Electrica Este became distressed when the main shareholder (Societe Generale) filed an international arbitration claim against the government for alleged breach of contract. The two projects that left the distressed status were both in Argentina, where Camuzzi and the government discontinued an international arbitration case for Empresa de Energia de Rio Negro (divested in 1996) and Empresa Distribuidora Electrica Atlantica (divested in 1999).

In *telecommunications* one project was canceled. The Venezuelan government nationalized the incumbent telecommunications operator Compania Anonima Nacional de Telefonos de Venezuela. The company had been divested in phases during the 1990s: a 40% stake was sold to a consortium led by the U.S. GTE Corp in 1991, and subsequent shares were sold on the local stock exchange and the New York Stock Exchange in 1996–97.

In *transport* five projects were canceled. In Argentina the federal government, citing lack of compliance with service obligations, canceled two railway concessions (Transportes Metropolitanos Belgrano and Transportes Metropolitanos Roca) granted in 1994. In Guatemala, Railroad Development Corp. stopped operating Guatemala Rail Network (Ferrovias Guatemala), which had been under a 50-year concession granted in 1998. The operator also filed for international arbitration, claiming that recent government actions had amounted to indirect expropriation and direct interference with its contractual rights. In Mexico, Genessee and Wyoming Inc. requested cancellation of the 30-year concession for Coatzacoalcos Port–Merida Railway and then stopped operating the railway because of damage caused by a hurricane in 2005. In Peru the 30-year Callao expressway concession granted in 2001 was canceled by the local government, which cited lack of compliance with investment obligations as the reason for the cancellation.

In *water and sewerage* one project was canceled and another became distressed. In Bolivia the national government finalized the announced termination of the 30-year concession for water and sewerage services in La Paz and El Alto (Aguas del Illimani). The concession fell into difficulty in 2005 after public protests indicating concerns over high tariffs and limited service expansion and demanding that the water system be returned to public control. In Colombia the Bogotá city government proposed to the concessionaire that they cancel the 20-year BOT contract for the Tibitoc water treatment plant in March 2007. The government had concluded that changes in macroeconomic conditions and water consumption patterns made the additional capacity provided by the project unnecessary. The concessionaire rejected the proposal, however, and appealed to the Arbitration and Conciliation Center of Bogotá's Chamber of Commerce (Centro de Arbitraje y Conciliacion de la Camara de Comercio de Bogota), which is expected to resolve the dispute.

Concluded projects. Two projects were concluded in the region in 2007. The first was a 14-year BOT contract for a wastewater project in Cuernavaca, Mexico, that began in 1993. The second was a 13-year concession for the Montevideo–Punta del Este Toll Road in Uruguay, granted in 1994.

³ República Bolivariana de Venezuela also nationalized the electricity utility Electricidad de Caracas in 2007. This company is not included in the database because it had been private since 1895 and the database covers projects beginning in 1984 or later.

Table 1 Infrastructure projects with private participation reaching financial or contractual closure in Latin America and the Caribbean in 2007

Note: .. = not available; n.a. = not applicable.

Energy										
	Country	Project name	Subsector	PPI type (subtype)	Private equity (%)	Investment commitments (US\$ millions)		Capacity size and type	Contract period (years)	Main sponsors
						Payments to the government	Physical assets			
1	Brazil	Da Ilha Small Hydroelectric Plant	Electricity	Greenfield project (BOO)	100	0	56.8	26 MW	..	Bolognesi Group (100%, Brazil)
2	Brazil	Foz do Chapeco Hydroelectric Power Plant	Electricity	Greenfield project (BOO)	51	97.9	1,160.2	855 MW	35	CPFL Energia (51%, Brazil)
3	Brazil	Retiro Baixo Hydroelectric Plant	Electricity	Greenfield project (BOO)	51	0	150.3	82 MW	30	..
4	Brazil	Veneto Small Hydroelectric Plant	Electricity	Greenfield project (BOO)	100	0	61.1	28 MW	..	Bolognesi Group (100%, Brazil)
5	Brazil	Estreito Hydroelectric Power Plant	Electricity	Greenfield project (merchant)	100	12.9	1,846	1,087 MW	35	Companhia Vale do Rio Doce SA (CVRD) (30%, Brazil), SUEZ (40%, France), Alcoa (26%, United States)
6	Chile	Charrua Temuco Transmission Line	Electricity	Greenfield project (BOT)	100	0	68	204 km	23	Alusa (51%, Brazil), Companhia Energetica de Minas Gerais (CEMIG) (49%, Brazil)
7	Chile	La Confluencia Hydroelectric Plant	Electricity	Greenfield project (merchant)	100	0	334	158 MW	..	Pacific Hydro Pty Limited (PHL) (50%, Australia), SN Power (50%, Norway)
8	Colombia	Hidroprado Hydroelectric Plant	Electricity	Divestiture (partial)	87	51	52.4	52 MW	n.a.	Union Fenosa (87%, Spain)
9	Colombia	Isagen SA	Electricity	Divestiture (partial)	19.9	284.8	0	2,182 MW	n.a.	..
10	Guatemala	Xacbal Hydroelectric Plant	Electricity	Greenfield project (merchant)	100	0	226.8	94 MW	..	Grupo Terra (100%, Honduras)
11	Mexico	Norte I Combined Cycle Plant	Electricity	Greenfield project (BOO)	100	0	400	450 MW	25	Union Fenosa (100%, Spain)
12	Nicaragua	Eolico Amayo Wind Farm	Electricity	Greenfield project (merchant)	100	0	95	40 MW	..	Centrans Energy Services (45%, Guatemala), Arctas Capital Group LP (45%, United States)

13	Panama	Changuinola Hydroelectric Plant	Electricity	Greenfield project (merchant)	83	0	320	223 MW	..	AES Corporation (83%, United States)
14	Panama	Santa Fe Wind Farm	Electricity	Greenfield project (merchant)	100	0	150	81 MW	..	Santa Fe Energy SA (100%, Panama)
15	Peru	El Platanal Hydroelectric Plant	Electricity	Greenfield project (merchant)	100	0	220	210 MW	..	Cementos Lima SA (60%, Peru), Cemento Andino SA (30%, Peru)

Telecommunications

	Country	Project name	Subsector	PPI type (subtype)	Private equity (%)	Investment commitments (US\$ millions)		Capacity size and type	Contract period (years)	Main sponsors
						Payments to the government	Physical assets			
1	Honduras	Digicel Honduras	Mobile access	Greenfield project (merchant)	100	80.1	0	Digicel (100%, Bermuda)
2	Suriname	Digicel Suriname	Mobile access	Greenfield project (merchant)	100	0	60	Digicel (100%, Bermuda)

Transport

	Country	Project name	Subsector	PPI type (subtype)	Private equity (%)	Investment commitments (US\$ millions)		Capacity size and type	Contract period (years)	Main sponsors
						Payments to the government	Physical assets			
1	Argentina	Bahia Blanca Container Terminal	Seaports	Concession (ROT)	100	0	9.5	..	20	Terminal de Servicios Portuarios Patagonia Norte SA (100%, Argentina)
2	Brazil	Norte Sul Railroad	Railways	Concession (BROT)	100	760	33.9	720 km	30	Companhia Vale do Rio Doce SA (CVRD) (100%, Brazil)
3	Brazil	State Highway MG-050	Roads	Concession (ROT)	100	0	366	372 km	25	Grupo Equipav (100%, Brazil)

4	Brazil	Tecon Santa Catarina	Seaports	Greenfield project (merchant)	100	0	230	450,000 throughput	..	Batistella Group (70%, Brazil), Hamburg Sud (30%, Germany)
5	Chile	Acceso Nororiente	Roads	Greenfield project (BOT)	100	0	273	22 km	40	Sacyr Vallehermoso SA (SyV) (100%, Spain)
6	Colombia	Bucaramanga Metropolitan Highway (ZMB)	Roads	Greenfield project (BOT)	100	0	77	83 km	20	Grodco SA (..%, Colombia)
7	Colombia	San Andres and Providencia Airports	Airports	Concession (ROT)	100	0	20	2 runways	20	Aeropuerto San Andres y Providencia SA (ASAP) (100%, Colombia)
8	Costa Rica	San Jose Caldera Highway	Roads	Greenfield project (BOT)	100	0	330	77 km	25	Sacyr Vallehermoso SA (SyV) (35%, Spain), Caja Madrid (18%, Spain), Grupo Soares da Costa (17%, Portugal), Fomento de Construcciones y Contratas SA (FCC) (18%, Spain)
9	Ecuador	Guayaquil Port Concession	Seaports	Concession (BROT)	100	30	170	600,000 throughput	20	International Container Terminal Services Inc. (ICTSI) (..%, Philippines), PSA Corp (..%, Singapore)
10	Mexico	Coatzacoalcos Underwater Tunnel	Roads	Greenfield project (BOT)	100	0	186.7	2 km	30	Fomento de Construcciones y Contratas SA (FCC) (50%, Spain), Caja Madrid (50%, Spain)
11	Mexico	Morelia-Aeropuerto Highway	Roads	Greenfield project (BOT)	100	0	69	26 km	30	Empresa Purepecha (100%, Mexico)
12	Mexico	Puente Internacional Reynosa – Anzalduas	Roads	Greenfield project (BOT)	100	0	60.1	10 km	30	Grupo Marhnos (..%, Mexico)
13	Mexico	Saltillo-Monterrey Highway	Roads	Greenfield project (BOT)	100	0	277	115 km	30	Isolux (80%, Spain), Elsamex (20%, Spain)
14	Mexico	Arriaga-Ocozoautla Highway Package	Roads	Concession (BROT)	100	0	287	140 km	30	Aldesa Construcciones SA (..%, Spain), Agrupacion de Companias Constructoras de Veracruz SA de CV (..%, Mexico)
15	Mexico	First FARAC Highway Concession Package	Roads	Concession (BROT)	100	4,030	137	558 km	30	ICA SA de CV (20%, Mexico), Goldman Sachs & Co. (80%, United States)

16	Mexico	Nueva Italia – Apatzingan Highway	Roads	Concession (BROT)	100	0	51.6	32 km	20	Impulsora Del Desarrollo Y El Empleo En América Latina SA de CV (IDEAL) (..%, Mexico), Corporacion de Constructora de Vias Terrestres SA de CV (..%, Mexico), GAMI Ingeniera e Instalaciones SA (..%, Mexico), Supra Construcciones SA de CV (..%, Mexico)
17	Mexico	Nuevo Necaxa – Thuatlan Highway	Roads	Concession (BROT)	100	0	650	85 km	30	ICA SA de CV (50%, Mexico), Fomento de Construcciones y Contratas SA (FCC) (50%, Spain)
18	Mexico	Rio Verde–Ciudad Valles Highway	Roads	Concession (BROT)	100	0	341	113 km	20	ICA SA de CV (100%, Mexico)
19	Mexico	Nuevo Laredo Cargo Terminal	Airports	Greenfield project (BOT)	100	0	7	..	20	Tecnologia en Sistemas Ambientales SA de CV (..%, Mexico), Operadora de Puentes Internacionales SA de CV (..%, Mexico)
20	Mexico	Lazaro Cardenas Mineral Terminal	Seaports	Greenfield project (BOT)	100	0	50	..	25	Techint SA (25%, Argentina), Cemex (50%, Mexico), Grupo Mexicano de Desarrollo SA de CV (25%, Mexico)
21	Peru	Inter-Oceanic Highway Section 4	Roads	Greenfield project (BOT)	100	0	562	306 km	25	Construtora Andrade Gutierrez (33%, Brazil), Construtora Queiroz Galvao (33%, Brazil), Construcoes e Comercio Camargo Correa (33%, Brazil)
22	Peru	Costa Sierra Section 1B	Roads	Concession (BROT)	100	0	31	78 km	15	Grana y Montero SA (100%, Peru)
23	Peru	Inter-Oceanic Highway Section 1	Roads	Concession (BROT)	100	0	98.9	758 km	25	Grana y Montero SA (..%, Peru), JJC Contratista (..%, Peru), Ingenieros Civiles y Contratistas Generales SA (..%, Peru)
24	Peru	Inter-Oceanic Highway Section 5	Roads	Concession (BROT)	100	0	183.9	828 km	25	Hidalgo and Hidalgo SA (..%, Ecuador), Cono Norte-Construccion y Administracion SA (..%, Peru)
25	Peru	Callao South Dock Container Terminal	Seaports	Greenfield project (BOT)	100	0	400	750,000 throughput	30	DP World (70%, United Arab Emirates), Uniport SA (30%, Peru)

Water and sewerage

	Country	Project name	Subsector	PPI type (subtype)	Private equity (%)	Investment commitments (US\$ millions)		Capacity size and type	Contract period (years)	Main sponsors
						Payments to the government	Physical assets			
1	Brazil	Rio Claro Sewerage System	Treatment plants	Concession (BROT)	100	0	257	160,000 connections	30	Odebrecht SA (100%, Brazil)
2	Chile	Izarra de Lo Aguirre Water Concession	Utilities	Concession (BROT)	100	0	3.1	2,000 connections	15	..
3	Mexico	Queretaro Aqueduct II	Treatment plants	Greenfield project (BOT)	100	0	246	130,000 cubic meters per day	20	Mitsui (26%, Japan), ICA SA de CV (37%, Mexico), Fomento de Construcciones y Contratas SA (FCC) (26%, Spain)
4	Mexico	San Pedro Martir Wastewater Treatment Plant	Treatment plants	Greenfield project (BOT)	100	0	32.8	65,000 cubic meters per day	20	Mitsui (50%, Japan), Tyco International (50%, United States)