

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

PPI data update note 31

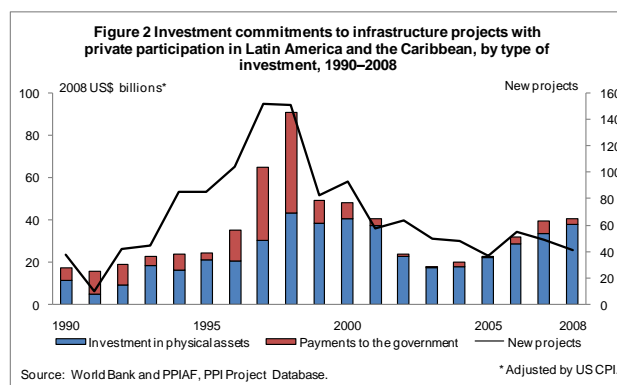
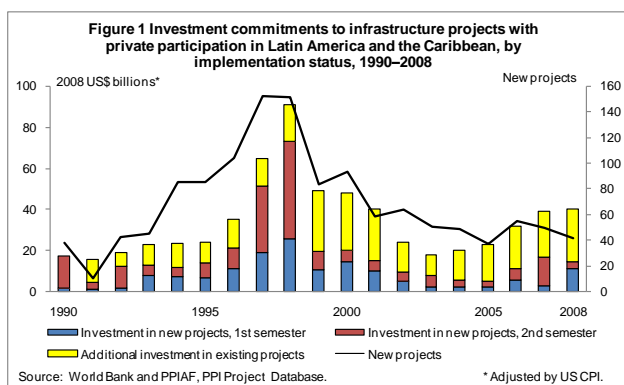
December 2009

Investment commitments remain stable in Latin America while the number of new projects declines

Private activity in infrastructure in Latin America and the Caribbean showed mixed results in 2008, according to just-released data from the Private Participation in Infrastructure Project Database. Annual investment commitments to infrastructure projects with private participation remained stable thanks to additional investment in existing telecommunications operators and new transport projects implemented in the first half of the year. Investment in new projects slowed in the second half of the year with the full onset of the financial crisis. This slowdown led to a decline in the number of projects for the entire year. The region accounted for 26% of the year's total investment commitments in developing countries, the second largest share among developing regions.

In 2008, 41 infrastructure projects with private participation reached financial or contractual closure in eight low- or middle-income countries in the region.¹ These projects involve investment commitments (hereafter, *investment*) of US\$14.6 billion. Infrastructure projects implemented in previous years had additional commitments of US\$25.7 billion, bringing total investment in 2008 to US\$40.3 billion. That represented an increase of 2% from the level reported in 2007 (figure 1).² Investment in existing projects, up 12% from the level in 2007, drove the increase. By contrast, investment in new projects declined by 11%.

When investment is classified by type, investment in physical assets explains the growth in total investment. Such investment amounted to US\$37.8 billion in 2008, 13% more than reported in 2007 and the highest level since 2000 (figure 2). By contrast, payments to governments (such as concession or lease fees and divestiture revenues) were 59% lower than in 2007, totaling US\$2.5 billion.



New projects and associated investment were more concentrated in the first half of the year in 2008 than in previous years. In the first semester 26 of the 41 new projects reached closure. These involve investment of US\$11.4 billion, 78% of the total for new projects in 2008. Investment in new projects in the first semester of 2008 was almost three times that in the same period of 2007—and the highest of

This note was written by Ada Karina Izaguirre, infrastructure specialist, and Alexander Nicholas Jett, consultant, Finance, Economics, and Urban Development Department, Sustainable Development Network, World Bank.

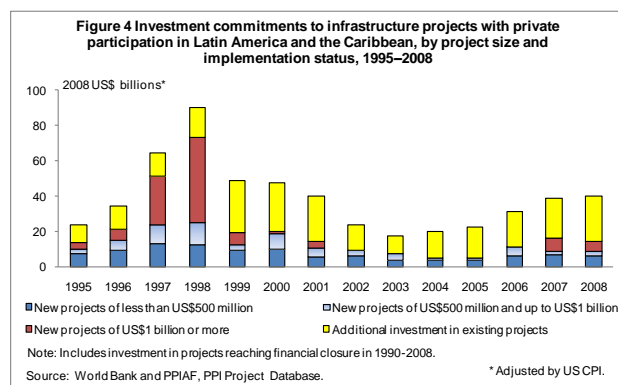
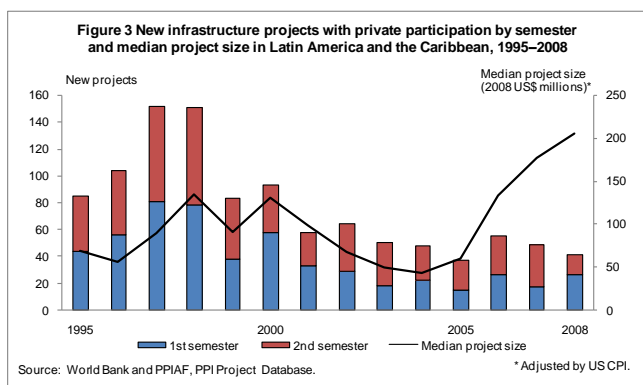
¹ The data on infrastructure projects with private participation include primarily medium-size and large projects as reported by the media and other public sources. Small-scale projects are generally not included because of lack of public information. Additional investment in some projects may have been omitted for the same reason.

² Investment data are reported in 2008 U.S. dollars, using the U.S. consumer price index and 2008 as the base year. Data at <http://ppi.worldbank.org/> are reported in millions of current U.S. dollars unless otherwise indicated.

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

any first semester since 2000. Investment in the second semester, however, was down 77% compared with the same period of 2007. Preliminary data on new projects in the first semester of 2009 suggest a recovery from the level reported in the second half of 2008. Investment reached US\$13.5 billion, driven by the implementation of large generation projects.³ Similar analysis is not possible for existing projects because the data do not allow the separation by semester of additional investment.

The number of projects reaching financial or contractual closure declined by 16% in 2008 compared with 2007 (figure 3). The closure of larger projects explains the divergence in trends between investment and number of projects. The median project size in 2008 (US\$205 million) was 16% larger than that in 2007. Projects of US\$500 million and up to US\$1 billion account for the growth in investment (figure 4). Total investment in these projects rose by 36%, while investment in both larger projects (US\$1 billion or more) and smaller ones (less than US\$500 million) declined. Projects of US\$1 billion or more reappeared in the region in 2007 and 2008 after a five-year hiatus.



Greenfield projects and divestitures were the most common types of private participation in 2008 (figure 5).⁴ Investment in greenfield projects amounted to US\$15.6 billion, 39% of the regional total. That level was similar to the level in 2007 and among the highest since 2001. Existing projects accounted for most of the increase, attracting 40% more investment (US\$10.5 billion) than in 2007. By contrast, investment in new greenfield projects declined by 38%. The 19 new greenfield projects reaching closure in 2008 involve investment of US\$5.2 billion. Investment in divestitures totaled US\$14.1 billion, 36% of the regional total in 2008. Previously implemented projects accounted for all this investment; the region had no new divestitures in 2008.

Concessions attracted investment of US\$10.2 billion, 25% of the regional total in 2008.⁵ Most of that investment was directed to the 22 new concessions. Seventeen of these were implemented in the first semester and attracted most of the investment. No new management or lease contract was signed in 2008.

As in previous years, Brazil drove most of the regional activity, attracting 58% of regional investment and implementing 26 of the 41 new projects (figure 6). It saw investment grow by 38% from 2007 to US\$23.3

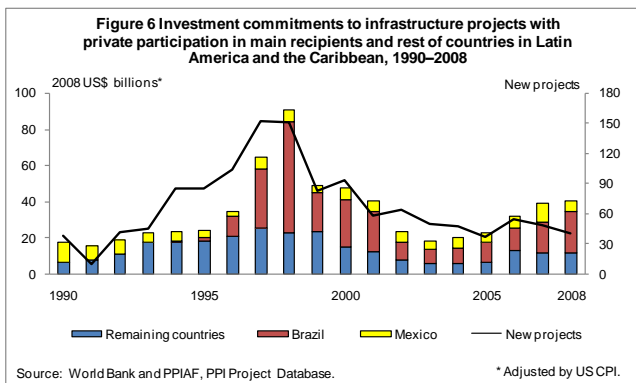
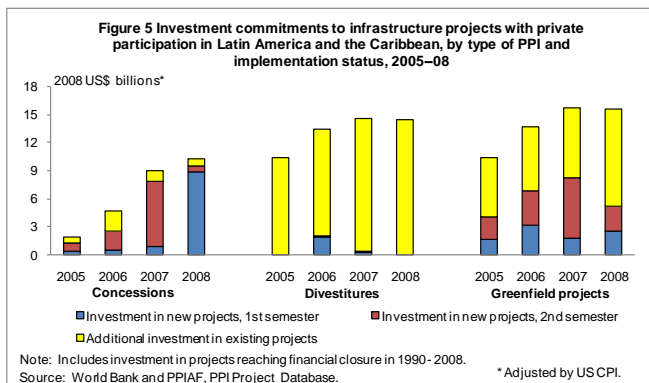
³ "Assessment of the Impact of the Crisis on New PPI Projects: Update 4," PPI data update note 24 (October 2009).

⁴ This note uses the term *greenfield project* as defined in the PPI Project Database methodology. The definition includes the following schemes: build, lease, and transfer (BLT); build, operate, and transfer (BOT); build, own, and operate (BOO); merchant; and rental.

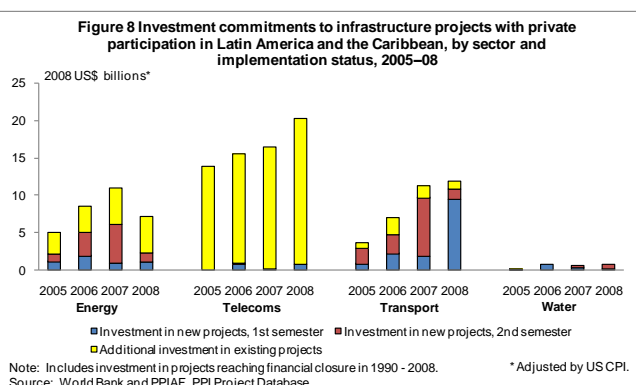
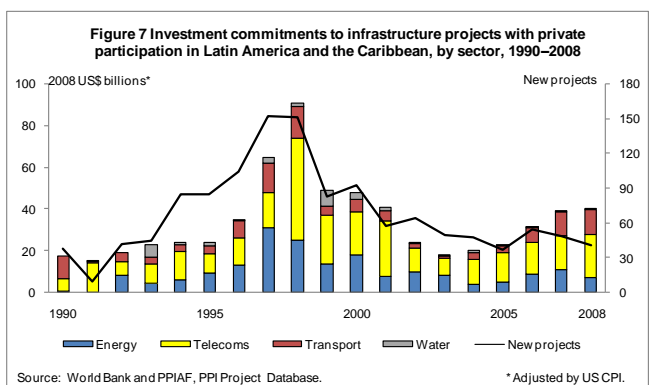
⁵ This note uses the term *concession* as defined in the PPI Project Database methodology. The definition includes contracts under which a private entity takes over the management of a state-owned enterprise or asset for a given period during which it also assumes significant investment risk. The following schemes are considered concessions: build, rehabilitate, operate, and transfer (BROT); rehabilitate, lease or rent, and transfer (RLT); and rehabilitate, operate, and transfer (ROT).

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

billion. With Brazil excluded, investment in the region would have fallen by 25% in 2008. Mexico, which accounted for the second largest share of regional investment (14%), saw investment of US\$5.5 billion. That represented a 47% decline from a peak in 2007 and a return to an annual level similar to those in 2001–05.



Activity by sector. Investment in 2008 was concentrated in telecommunications (51%) and transport (30%; figure 7). In telecommunications, investment grew by 24% from 2007 to US\$20.3 billion, driven by network expansion by existing telecommunications operators (figure 8). In transport, investment grew by 6% to almost US\$12 billion—a strong level of activity not seen in the region since the mid-1990s. In energy, investment fell by 35% to US\$7.1 billion, the lowest since 2005. The slowdown in new energy projects in the second half of the year explains the decline. In water and sewerage eight projects, representing investment of US\$810 million, were implemented in 2008.



In *energy* three countries implemented 11 projects: 9 power plants with total capacity of 1,604 megawatts (MW) and 2 electricity transmission lines (table 1). Brazil was the most active, with nine greenfield projects: seven electricity generation projects, involving US\$1.1 billion in investment and 607 MW, and two electricity transmission lines, representing US\$467 million in investment and 616 kilometers (km). Argentina implemented one greenfield project: a US\$205 million, 178-MW expansion of Central Termica Loma de La Lata, to bring total installed capacity to 547 MW. Mexico secured financing for the US\$400 million, 450-MW natural-gas-fired power plant being developed by Spanish Union Fenosa under a 25-year build-operate-transfer (BOT) contract.

In *telecommunications* previously implemented projects attracted investment of US\$19.6 billion, and two new projects US\$759 million, for a total of US\$20.3 billion. Brazil accounted for 43% of the regional investment in previously implemented projects. Panama implemented the two new projects in the region. Its government granted two mobile licenses: one to Mexican America Movil and another to



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

Bermuda-based Digicel. Each operator paid US\$86 million for its license. In addition, America Movil committed to investing US\$237 million and Digicel to investing US\$350 million.

In *transport* six countries implemented 20 projects. Brazil led regional activity with 10 projects involving investment of US\$8.7 billion. Eight projects are road contracts, involving 2,600 kilometers. Seven of these are 25-year concessions for federal highways in the Mercosul corridor. Of the seven contracts, tendered in October 2007 and signed in February 2008, five were awarded to the Spanish group Obrascon Huarte Lain (OHL) and represent US\$5.5 billion in investment. The other two Mercosul projects are the US\$381 million concession for the BR-393 Rio de Janeiro highway awarded to Spanish Acciona and the US\$457 million Transbrasiliana highway concession granted to Brazilian Grupo BR Vias. The other road project is the US\$1.6 billion, 30-year concession to operate and expand the Rodoanel Mario Covas Western Beltway, awarded by the state of São Paulo to Brazilian Companhia de Concessões Rodoviárias.

Brazil had two other new transport projects, in the railway and seaport subsectors. The first is a US\$515 million, 30-year contract to design, build, finance, and operate the trains and technical equipment for São Paulo Metro's Line 4. This project, which includes government support in the form of minimum revenue guarantees and availability payments, was the first under Brazil's public-private partnership law enacted in 2004. The second is a 25-year concession contract to operate and expand Tecon Imbituba's container terminal in Santa Catarina State, with US\$236 million in investment.

Argentina had one new transport project, proposed as a private initiative. This is a 30-year, US\$331 million concession for the Lujan-Carlos Casares Highway, granted to Argentine Homaq. Chile had four new concessions, two in roads and two in airports. The road concessions are the US\$38.6 million contract for Conexión Vial Melipilla-Camino de la Fruta and the US\$191 million Coronel-Tres Pinos (Ruta 160) concession. Chile's other two concessions are for El Tepual airport and Diego Aracena airport, both previously managed by private operators under 12-year concessions (see the section on concluded projects). All four concessions in Chile have a variable contract period, ending when the concession has generated the minimum revenue requested by the concessionaire at the time of the tender.

Colombia signed a US\$200 million, 25-year concession with Sociedad Operadora de Aeropuertos Centro Norte to upgrade, operate, and maintain six regional airport terminals. Mexico had three new road projects: two BOT contracts awarded by the federal government (a US\$156.6 million contract for Libramiento de Irapuato and a US\$738.4 million contract for the Perote Banderilla Highway and Xalapa Bypass) and a concession awarded by the state of Puebla (US\$10 million, for the San Bartolo Cohuecan-Actopan Puebla Regional Road). Peru closed financing on the US\$439 million Callao South Dock Container Terminal (Muelle Sur).

In *water and sewerage* only Brazil and Guatemala had new projects reaching financial or contractual closure. Brazil had seven, with investment of US\$800 million. In the state of Bahia the federal government and the Brazilian company Odebrecht signed an 18-year BOT contract for the Bahia Outfall sewage collection and treatment plant. In the state of Rio de Janeiro the federal government and Odebrecht signed a 15-year concession for sewerage services for the Rio das Ostras municipality, and the municipality of Resende signed a 30-year concession with Aguas das Agulhas Negras for its water utility and sewerage services. In the state of São Paulo the Brazilian company Cab Ambiental signed a 15-year concession for the Taiacupeba water treatment plant with Sabesp (São Paulo's state-owned water utility), a 30-year concession with the Mirassol municipality for the operation of its water and sewerage utility, and a 30-year concession with the municipality of Guaratingueta for sewerage services. In addition, the Spanish company OHL secured financing for a 30-year BOT contract for a wastewater treatment plant in Mogi Mirim, São Paulo. In Guatemala the departmental government of Izabal signed a 25-year concession with Uruguayan Grupo Seinco for the water and sewerage utility of the municipalities of Santo Tomás de Castilla and Puerto Barrios.



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

Potential projects. In addition to the 41 new projects reaching financial or contractual closure in 2008, at least 38 other infrastructure projects were awarded but had not reached closure by the end of the year. Of these potential projects, 16 were in energy—9 for electricity generation and 7 for electricity transmission. In transport there were 18 potential projects: 16 roads, 1 airport, and 1 seaport. In water there were four. In Mexico one BOT contract was awarded for the El Ahogado wastewater treatment plant and another for expansion of the Los Cabos treatment plant. In Peru a BOT contract was awarded for the Huascacocha water transfer project. And in Haiti a management contract was awarded for water services for the city of Saint Marc.

Canceled and distressed projects. Three projects were canceled in 2008. In Argentina the Province of Catamarca nationalized Empresa Distribuidora de Energia Catamarca (Edecat) in October 2008. Edecat, the provincial electricity distribution company, had been partially divested in 1996. The provincial government of Catamarca also canceled the Aguas del Valle water utility and sewerage concession for the towns of San Fernando del Valle de Catamarca, Valle Viejo, and Fray Mamerto Esquiú, in April 2008. Aguas del Valle had been managing the water utility for those towns since December 2003. In Bolivia the national government completed the nationalization of Transredes in October 2008. Transredes, the country's natural gas transmission company, had been partially divested in 1997.

Two projects that had been in international arbitration at the end of 2007 reached settlements and became operational during 2008. One of them, the Electroquil power plant in Ecuador, spent four years in international arbitration for nonpayment of generation fees by the government. The International Centre for Settlement of Investment Disputes ruled on the case in August 2008, requesting the government to pay US\$5.5 million plus interest to Duke Energy Corporation, the project sponsor. The other project was Energia del Sur in Argentina. BP America, the project sponsor, and the government of Argentina discontinued the international arbitration process that had started in 2004, stemming from disputes over compensation for losses caused by the devaluation of the Argentine peso in 2001.

As a result of these changes, the number of canceled or distressed projects in the region grew by one in 2008, bringing the total number to 118. These projects represent 10.6% of the total investment in the region in 1990–2008.

Concluded projects. Four projects concluded in 2008. Chile had three concluded projects: the 13-year BOT for the Arturo Benitez Airport Roadway and the original, 12-year concessions for El Tepual airport and Diego Aracena airport. New concessions for these three facilities were granted through competitive tenders and became effective in 2009. In Colombia the 14-year concession granted to Consorcio La Calera for Los Patios–Guasca–El Salitre–Briceno Toll Road concluded in July 2008.



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

Table 1 Infrastructure projects with private participation reaching financial or contractual closure in Latin America and the Caribbean in 2008

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

Energy										
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Contract period (years)	Main sponsors
1	Argentina	Central Termica Loma de La Lata (expansion)	Operational	Electricity	Greenfield project (merchant)	100	205	178 MW	..	Pampa Energia SA (100%, Argentina)
2	Brazil	Areia Branca Hydroelectric Project	Construction	Electricity	Greenfield project (BOT)	100	48	19.8 MW	..	SUEZ (100%, France)
3	Brazil	ATE III Transmissora de Energia	Operational	Electricity	Greenfield project (BOT)	100	401	441 km	30	Abengoa (100%, Spain)
4	Brazil	Beberibe Wind Park	Operational	Electricity	Greenfield project (BOT)	100	77	25.5 MW	30	SUEZ (100%, France)
5	Brazil	Corumba III Hydroelectric Power Plant	Construction	Electricity	Greenfield project (merchant)	63	121.7	93.6 MW	..	Previ (30%, Brazil), Iberdrola SA (24%, Spain)
6	Brazil	Cosan Bioenergia	Construction	Electricity	Greenfield project (BOO)	100	234.2	200 MW	..	Cosan SA (100%, Brazil)
7	Brazil	ERSA Small Hydroelectric Power Project	Construction	Electricity	Greenfield project (BOO)	100	423.1	137 MW	..	Empresa de Investimento em Energias Renovaveis SA (ERSA) (100%, Brazil)
8	Brazil	IEMG Neves 1, Mesquita Transmission Line	Operational	Electricity	Greenfield project (BOO)	100	66.1	172 km	30	ACS Group (Actividades de Construccion y Servicios) (40%, Spain), Interconexion Electrica SA (ISA) (60%, Colombia)
9	Brazil	Rio PCH 1 Small Hydro Plants	Construction	Electricity	Greenfield project (BOT)	100	90.3	39 MW	..	Performance Centrais Hidreletricas Ltda (PCH) (25%, Brazil), Previ (37%, Brazil), Iberdrola SA (30%, Spain)
10	Brazil	Salto do Rio Verdinho HPP	Construction	Electricity	Greenfield project (BOO)	100	189.3	93 MW	30	Votorantim (100%, Brazil)
11	Mexico	Norte-I Durango Combined Cycle Plant	Construction	Electricity	Greenfield project (BOT)	100	400	450 MW	25	Union Fenosa (100%, Spain)



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

Telecommunications									
	Country	Project name	Project status	Segment	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Capacity size and type	Main sponsors
1	Panama	Digicel Panama	Construction	Mobile access	Greenfield project (BOO)	100	436	81,000 connections	Digicel (100%, Bermuda)
2	Panama	Claro Panama	Operational	Mobile access	Greenfield project (BOO)	100	323	..	America Movil (100%, Mexico)

Transport											
	Country	Project name	Project status	Sub-sector	Type of PPI	Private equity (%)	Investment commitment (US\$ millions)	Government cash support (US\$ millions)	Type of government support	Capacity size and type	Main sponsors
1	Argentina	Lujan-Carlos Casares Highway	Operational	Roads	Concession (BROT)	100	331	n.a.	n.a.	240 km	Homaq SA (100%, Argentina)
2	Brazil	Tecon Imbituba	Operational	Seaports	Concession (BROT)	100	236	n.a.	Interest rate guarantee	95 throughput (thousands)	Santos Brasil Participacoes SA (100%, Brazil)
3	Brazil	Autopista Regis Bittencourt	Operational	Roads	Concession (BROT)	100	1,591	n.a.	n.a.	402 km	Obrascon Huarte Lain (OHL) (60%, Spain)
4	Brazil	Autopista Fernao Dias	Operational	Roads	Concession (BROT)	100	1,200	n.a.	n.a.	562 km	Obrascon Huarte Lain (OHL) (60%, Spain)
5	Brazil	Litoral Sul Highway	Operational	Roads	Concession (BROT)	100	1,115	n.a.	n.a.	382 km	Obrascon Huarte Lain (OHL) (60%, Spain)
6	Brazil	Fluminense Highway	Operational	Roads	Concession (BROT)	100	904	n.a.	n.a.	320 km	Obrascon Huarte Lain (OHL) (60%, Spain)
7	Brazil	Planalto Sul Highway	Operational	Roads	Concession (BROT)	100	678	n.a.	n.a.	413 km	Obrascon Huarte Lain (OHL) (60%, Spain)
8	Brazil	Transbrasiliana Highway	Operational	Roads	Concession (BROT)	100	457	n.a.	n.a.	322 km	Grupo BR Vias (100%, Brazil)
9	Brazil	Rodoanel Mario Covas Western Beltway	Operational	Roads	Concession (BROT)	100	1,583	n.a.	n.a.	32 km	Companhia de Concessoes Rodoviaras (CCR) (95%, Brazil)
10	Brazil	BR-393 Rio de Janeiro Highway	Operational	Roads	Concession (BROT)	100	381	n.a.	n.a.	200.4 km	Acciona (100%, Spain)



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

11	Brazil	Sao Paulo Metro Line 4	Construction	Railways	Greenfield project (BOT)	100	515	n.a.	Fixed government payments, revenue guarantee	12.8 km	Montgomery Participacoes SA (30%, Portugal), Companhia de Concessoes Rodoviaras (58%, Brazil)
12	Chile	El Tepual Airport II	Operational	Airports	Concession (BROT)	100	18	n.a.	n.a.	1 runway	Gestion e Ingenieria IDC (100%, Chile)
13	Chile	Diego Aracena Airport II	Operational	Airports	Concession (BROT)	100	13	n.a.	n.a.	1 runway	Tecsa (50%, Chile), Sociedad Metalurgica Arrigoni SA (46%, Chile)
14	Chile	Conexion Vial Melipilla-Camino de la Fruta	Operational	Roads	Concession (BROT)	100	39	n.a.	n.a.	31 km	Grupo Comsa (100%, Spain)
15	Chile	Coronel-Tres Pinos Concession (Ruta 160)	Operational	Roads	Concession (BROT)	100	191	n.a.	n.a.	90 km	Acciona (100%, Spain)
16	Colombia	Six Airports Concession	Operational	Airports	Concession (BROT)	100	200	n.a.	n.a.	6 runways	Capital Airports Holding (..%, China), Fernando Mazuera y Cia SA (..%, Colombia), Supertiendas y Droguerias Olimpica (..%, Colombia), Malibu SA (..%, Colombia), Informacion y Tecnologia SA (..%, Colombia), Portales Urbanos SA (..%, Colombia), Sociedad Colombiana de Inversiones Comerciales (..%, Colombia), Noarco (..%, Colombia), Servicios Integrales para Redes y Comunicaciones (..%, Colombia)
17	Mexico	Perote Banderilla Highway and Xalapa Bypass	Construction	Roads	Greenfield project (BOT)	100	738	n.a.	n.a.	59 km	Isolux (50%, Spain), Mota Engil SGPS (40%, Portugal)
18	Mexico	San Bartolo Cohuecan-Acteopan Puebla Regional Road	Operational	Roads	Concession (ROT)	100	10	n.a.	n.a.	10.6 km	Promotora de Infraestructura de Mexico, SA de CV (100%, Mexico)



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

19	Mexico	Libramiento de Irapuato	Construction	Roads	Greenfield project (BOT)	100	157	0	Revenue guarantee	29 km	Grupo Hermes SA (50%, Mexico), Peninsular Compania Constructora (50%, Mexico)
20	Peru	Callao South Dock Container Terminal	Construction	Seaports	Greenfield project (BOT)	100	439	n.a.	n.a.	830 throughput (thousands)	DP World (70%, United Arab Emirates), Uniport SA (30%, Peru)

Water and sewerage

	Country	Project name	Project status	Sub-sector	Type of PPI	Investment commitment (US\$ millions)	Capacity type	Capacity	Main sponsors
1	Brazil	Aguas das Agulhas Negras	Operational	Utilities	Concession (BROT)	74.2	Population (thousands)	112	Construtora Queiroz Galvao (..%, Brazil), Carioca Christiani-Nielsen Engenharia (..%, Brazil), Trana Construcoes Ltd. (..%, Brazil)
2	Brazil	Alto Tiete PPP	Operational	Treatment plants	Concession (BROT)	170	Cubic meters per day (thousands)	1,296	Cab Ambiental (100%, Brazil)
3	Brazil	Bahia Outfall PPP	Construction	Utilities	Greenfield project (BOT)	112.6	Population (thousands)	1,100	Odebrecht SA (100%, Brazil)
4	Brazil	Cab Guaratingueta Sewerage System	Operational	Utilities	Concession (BROT)	39.6	Population (thousands)	116	Cab Ambiental (100%, Brazil)
5	Brazil	Mirassol Water and Sewerage Concession	Operational	Utilities	Concession (BROT)	22.5	Population (thousands)	55	Cab Ambiental (90%, Brazil)
6	Brazil	Mogi Mirim	Construction	Treatment plants	Greenfield project (BOT)	175	Cubic meters per day (thousands)	13	Obrascon Huarte Lain (OHL) (57%, Spain)
7	Brazil	Rio das Ostras Sanitation PPP	Construction	Utilities	Concession (BROT)	206.5	Population (thousands)	120	Odebrecht SA (100%, Brazil)
8	Guatemala	Aguas de Izabal	Operational	Utilities	Concession (BROT)	6.7	Number of connections (thousands)	6	Grupo Seinco (100%, Uruguay)