



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

PPI data update note 36

May 2010

Assessment of the impact of the crisis on new PPI projects – Update 6

New private infrastructure activity in developing countries continued to recover selectively in the fourth quarter of 2009

Summary. Investment commitments to new infrastructure projects with private participation (PPI projects) reaching closure in developing countries grew by 15% in the fourth quarter of 2009 compared with the same period of 2008—and by 15% in 2009 as a whole. These growth rates indicate a strong recovery from the 45% drop in investment commitments in the second half of 2008 compared with the same period of 2007. But investment continued to grow selectively, concentrated in large energy projects in a few countries—Brazil, China, India, and Turkey. The Russian Federation, by contrast, saw a sharp decline in investment as a result of the global financial crisis and the end of the RAO UES privatization program. If these five countries were excluded, investment in developing countries would have fallen by 58% in the fourth quarter of 2009 compared with the same period of 2008, and by 32% in 2009 as a whole. Among sectors, only energy had investment growth in 2009 as a whole, thanks to activity in greenfield power plants. The growth in energy was strong, with investment up 40% compared with 2008. In transport, despite some growth in the fourth quarter, annual investment was down by 12%. Across sectors, new private activity as measured by the number of projects grew by 8% in 2009 but remained slower than before the full onset of the financial crisis.

The crisis continues to affect new PPI activity. Some planned projects are still being delayed, restructured, or, to a lesser extent, canceled. Transport continues to be the most affected sector, Europe and Central Asia the most affected region, and low-income countries the most affected country income group. Despite the more difficult environment, developing country governments remain committed to their public-private partnership (PPP) programs, as confirmed by the number of new projects that were being tendered, awarded, or restructured in the fourth quarter of 2009.

Commercial bank lending remains constrained, and the choices of investors and financiers continue to reflect the “flight to quality.” For projects able to raise financing, the conditions are more stringent, with a higher cost of debt, lower debt/equity ratios, shorter tenors, and more conservative structures. But the impact of the crisis has varied across countries, depending on whether there is an active local financial market and whether the government has taken proactive measures to foster liquidity. In many countries local public banks as well as bilateral and multilateral agencies continue to be key sources of finance, providing a critical amount of funding. But these institutions are unlikely to have the capacity to fully replace other sources of financing. Greater project selectivity is therefore expected to continue for some time.

Trends in new infrastructure projects with private participation.¹ This review of new PPI projects sheds some light on the recent activity and on the short-term impact of the financial crisis.²

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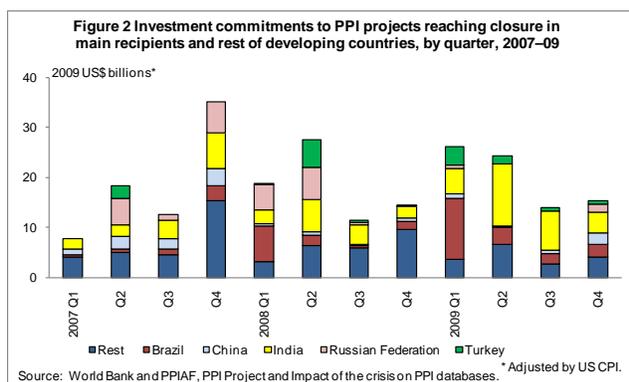
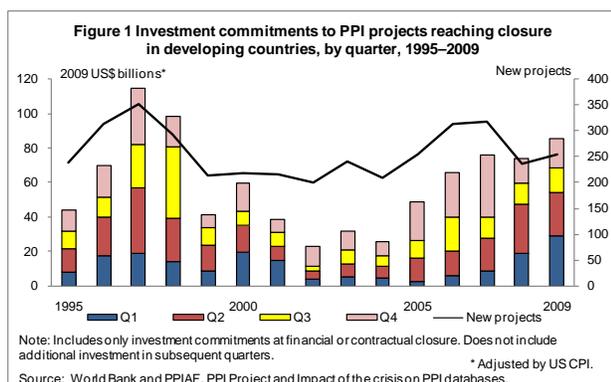
¹ This note relies on data compiled in the “Impact of the financial crisis on PPI” database, which includes 965 infrastructure projects with private participation in developing countries that were trying to raise financing on a project finance basis or were at an advanced stage of tender between January 2008 and December 2009. The crisis impact database uses the same definitions for sectors and project types as the PPI Project Database. But numbers in the two databases are not directly comparable. The crisis impact database includes projects that have not yet reached financial or contractual closure, while the PPI Project Database, which is updated annually, includes only projects that have reached closure. In addition, the crisis impact database does not include previously implemented projects, whose investment programs could also be affected by a higher cost of financing and lower demand. As reported by the PPI Project Database, these projects accounted for more than 50% of total investment commitments in 2004–08.

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

The note incorporates two improvements over the previous updates on the impact of the crisis: a larger sample size (965 projects, up from 843 in the previous update) over a longer period (two full years of data).³ The findings of the survey follow.

1. Investment in new PPI projects continues to recover, but the revival has been selective.

In the fourth quarter of 2009, 54 PPI projects with investment commitments (hereafter, *investment*) of US\$16.7 billion reached financial or contractual closure in 22 developing countries.⁴ This investment level represents a 15% increase from that reported in the fourth quarter of 2008 and suggests a continuation of the recovery in PPI investment experienced earlier in the year (figure 1). In 2009 as a whole, 253 PPI projects with investment of US\$85.4 billion reached financial or contractual closure in 50 developing countries. Investment was up 15% from the level reported in 2008.



But a closer look at the data reveals a more nuanced picture. First, investment in the fourth quarter was concentrated in Brazil, China, India, and Turkey (figure 2). These four countries accounted for 65% of the investment and almost all the investment growth in the quarter. By contrast, Russia saw a sharp decline in investment because of the financial crisis—which hit the country hard—and the end of the privatization program for the RAO UES generating assets. Even without the crisis, investment in Russia would have declined unless another major privatization or PPP program had been implemented. If Brazil, China, India, Turkey, and Russia were excluded, investment in developing countries would have fallen by 58% in the fourth quarter of 2009 compared with the same period of 2008, and by 32% in 2009 as a whole. The divergence in PPI investment trends between the largest developing countries and the rest started in 2007 but became more pronounced in 2009 (figure 3).

Second, larger projects drove most investment in 2009 (figure 4). Investment in projects of US\$1 billion or more amounted to US\$41.4 billion, up 14% compared with 2008.⁵ Investment in projects of

² The note focuses on private participation in infrastructure and therefore does not analyze the impact of stimulus packages, which in most cases have been directed to public infrastructure projects.

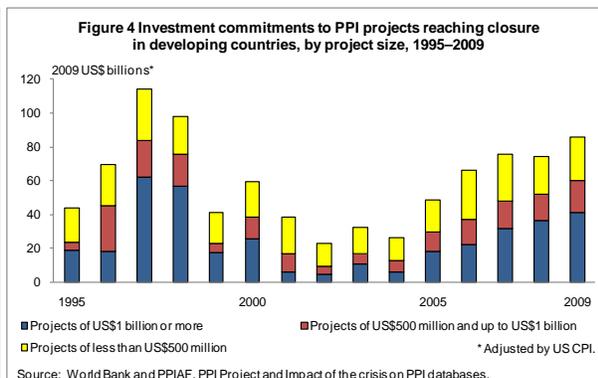
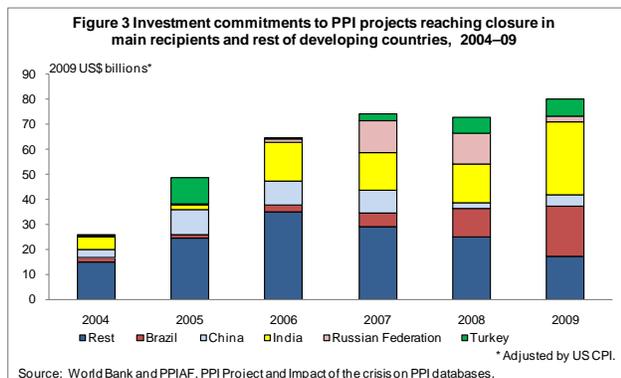
³ The review summarizes project data as reported by the media and other public sources and includes primarily medium-size and large projects. Small-scale projects are generally not included because of a lack of public information.

⁴ The definition of financial or contractual closure varies among contract types. For greenfield projects, 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 full cost of the project. If project construction begins with partial funding, projects are included when project construction is significantly advanced (25% complete). For concessions, contractual closure is reached when the concession agreement is signed. For divestitures, closure is reached when the equity holders have a legally binding commitment to acquire the assets. For management and lease contracts, a contract authorizing the commencement of management or lease service must be signed, with the private consortium assuming the operation of the services.

⁵ The data on PPI investment by project size differ from the numbers reported in Update 5 of February 2010 because of a larger sample size and the correction of a calculation error.

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

US\$500 million or more but less than US\$1 billion totaled US\$18 billion, up 17%. Investment in projects of less than US\$500 million came to US\$26 billion, also up 17%.



Third, the number of projects reaching closure in developing countries grew by 8% in 2009, but remained below precrisis levels. If Brazil, China, India, Turkey, and Russia were excluded, the recovery would have been stronger, with the number of projects growing by 13%. But the number still would have remained below precrisis levels.

Fourth, the survey confirms that projects able to raise financing usually have the backing of large developers with extensive banking relationships and have been accorded priority status in their country (with the aim of easing current infrastructure bottlenecks or preventing future ones).

2. Since the onset of the global financial crisis, financial market conditions have become more stringent.⁶ While infrastructure projects with private participation or PPP schemes continue to raise financing, they are competing with other projects and sectors for the reduced liquidity in the market. The overall volume of syndicated loans in emerging markets fell by 35% in 2009 compared with 2008, and by 49% compared with the record level in 2007. Project financing usually involves lower debt/equity ratios, higher spreads and fees, shorter debt tenors, and embedded mechanisms to encourage refinancing. Surveyed greenfield energy projects reaching financial closure in the fourth quarter of 2009 as well as in the rest of the year report debt/equity ratios in the low to mid 70s/30s and even in the 60s/40s (figures 5 and 6). These ratios are well below the 80s/20s or higher that were available in the precrisis period. In 2009 projects with debt/equity ratios in the 80s/20s were the exception. These projects were either located in India—a country with a very liquid banking sector and chronic electricity shortages—or were renewable energy projects in upper-middle-income countries.

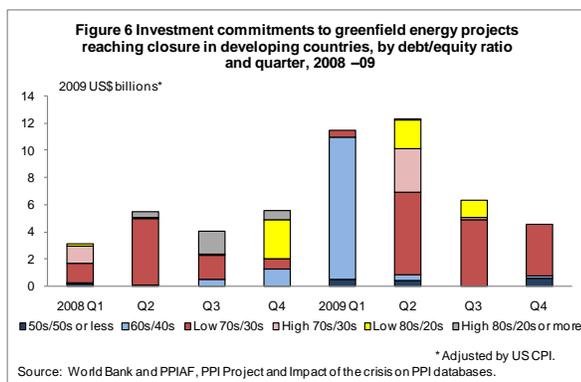
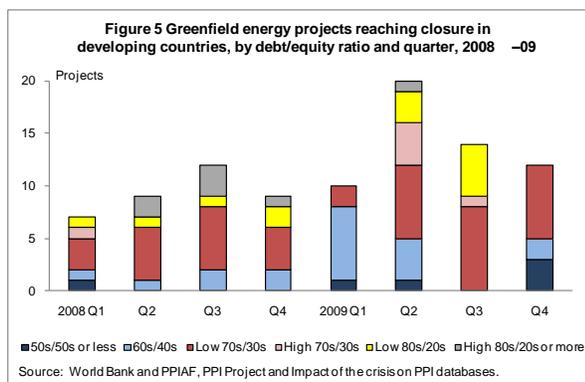
The higher cost of financing was highlighted as a major impact of the crisis in less than 1% of reviewed projects by investment. But this finding seems to reflect the limited publicly available information on the cost of funding rather than the actual impact of the crisis. For example, the average pricing of all syndicated loans to Latin America rose from a range of 150–175 basis points in 2005–08 to 340 basis points in 2009. The total funding cost increased less, however, because the reference rates (such as the London interbank offered rate, or LIBOR) declined substantially in the same period. LIBOR fell from more than 500 basis points in 2007 to 200 basis points in early 2009 and to 100 in late 2009. The average tenor on loan facilities fell from five years in 2008 to four years in 2009, the shortest on record. Banks continue to be selective in their lending, focusing on key clients (relationship banking).

3. Conditions in local financial markets vary across countries. Large developing countries with well-developed local financial markets, such as Brazil, China, India, and Turkey, have been able to maintain liquidity in their markets thanks to countercyclical measures by government and domestically

⁶ Unless otherwise indicated, Dealogic is the source of data for this section.

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

generated liquidity. According to Dealogic, Brazil, China, and India were among the few large economies with growth in the overall volume of syndicated loans in 2009. Other countries with sound banking sectors and local institutional investors, such as Chile, Colombia, and Peru, have also been able to compensate for reduced external funding flows with local funding sources.⁷ By contrast, countries highly dependent on foreign lending, such as many Eastern European countries and low-income economies, have seen their lending capacity severely curtailed by the retrenchment of foreign banks.



4. Local state-owned banks as well as multilateral and bilateral agencies continue to be key financiers. Local public banks have become one of the main sources of funding for private infrastructure projects. Of the 54 projects reaching closure in the fourth quarter of 2009, 14 projects, accounting for 38% of the investment committed in that quarter, had funding from local public banks. And of the 253 projects reaching closure in 2009 as a whole, 17% had funding from such banks. These projects involve investment of US\$39.7 billion, or 47% of the total committed in the year. Public banks acted as lead arrangers in many cases.

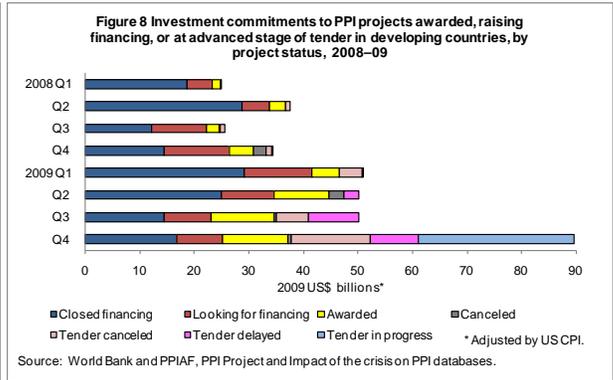
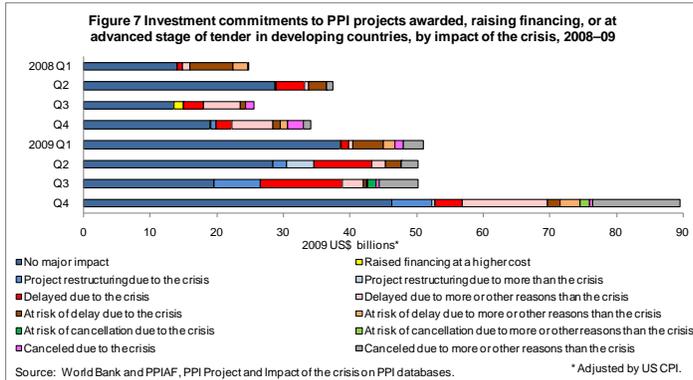
Multilateral, bilateral, and export credit agencies are also taking a more active role, mobilizing funding for many projects. In the fourth quarter of 2009 these agencies provided funding to eight projects, which represent investment of US\$4.3 billion, or 26% of the total for the quarter. In 2009 these agencies contributed direct financing to 15% of the projects reaching closure—projects representing investment of US\$17.3 billion, or 20% of the total.

5. Projects continue to be delayed or, to a lesser extent, canceled. Projects continued to be postponed or canceled in the fourth quarter of 2009 as a result of the crisis (tables 1 and 2). By the end of the quarter such projects amounted to about 17% of reviewed projects by investment—projects that had been delayed (10%) or canceled (2%) or were at risk of being delayed (5%) if financing was not arranged in the coming months. Investment delays resulting from the crisis were concentrated in the second and third quarters of 2009, while cancellations due to the crisis were concentrated in the third and fourth quarters of 2008 and the first quarter of 2009 (figure 7).

Projects in another group had been affected by the crisis but were delayed or canceled also for reasons in addition to the crisis (such as delays in land acquisition or government approvals). By the end of the fourth quarter these represented 11% of reviewed projects by investment (7% delayed, 3% canceled, and 1% at risk of delay). Finally, 10% of reviewed projects by investment had been delayed or at risk of being delayed but not because of the crisis. The total share of investment affected by the crisis as well as by implementation issues was two percentage points lower than that at the end of the third quarter. Investment delays due to reasons unrelated to the crisis took place mainly in the fourth quarter of 2009 as well as in the third and fourth quarters of 2008. Cancellations unrelated to the crisis were concentrated in the second half of 2009.

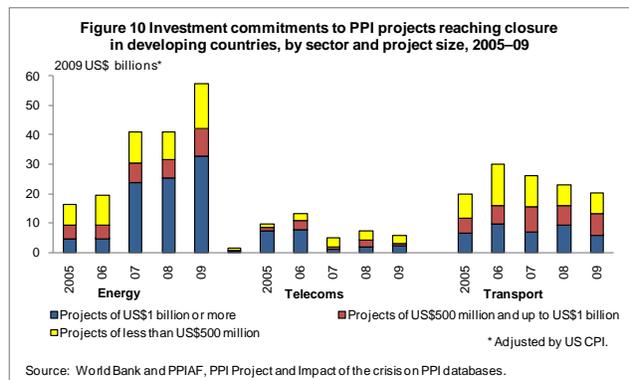
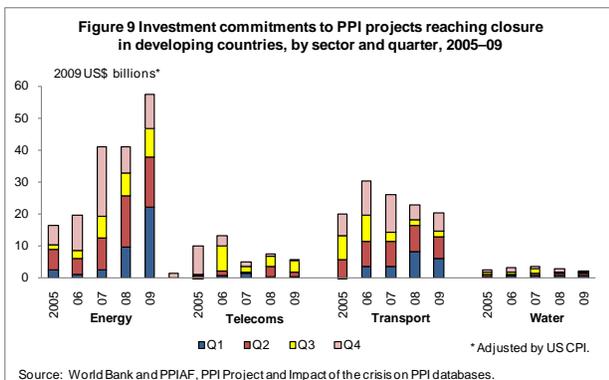
⁷ "Sol Suppliers," *Project Finance*, March 1, 2010.

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE



Competition to attract financing will increase as a growing backlog of projects attempt to secure financing. Many of the 119 projects that had been unable to secure financing by December 2009 (involving investment of US\$78 billion) are likely to continue to seek financing (figure 8). In addition, 209 projects awarded in 2008 and 2009 (involving investment of US\$55 billion) that are yet to start looking for finance will be trying to raise financing in the next 6–12 months.

6. New PPI activity varies across sectors, with investment in the fourth quarter higher in energy and transport and lower in telecoms and water. In the energy sector 33 projects reached closure in the fourth quarter of 2009, with investment worth US\$10.6 billion—up 32% compared with investment in the same period of 2008. In the year as a whole, 137 energy projects reached closure, with investment worth US\$57.4 billion, 40% more than in 2008 and a level not seen for new energy projects since the mid-1990s (figure 9). All project sizes accounted for the investment growth in 2009 (figure 10). Investment in projects of US\$1 billion or more increased by 30%, to US\$32.9 billion. Investment in projects of US\$500 million–1 billion rose by 50%, to US\$9.4 billion. And investment in projects of less than US\$500 million grew by 59%, to US\$15.1 billion. The number of energy projects reaching financial or contractual closure rose by 43% in the fourth quarter of 2009 compared with the same period of 2008, and by 41% in the year as a whole.



Energy accounts for a large but declining share of projects delayed or at risk of being delayed (table 3). Projects representing 10% of total investment in reviewed energy projects had been delayed (6%) or at risk of being delayed (4%) because of the crisis by the end of the fourth quarter of 2009. This share is similar to the one reported for the end of the third quarter but five percentage points lower than that reported for the end of the second quarter. In addition, 13% of energy projects by investment had been affected by the crisis but were delayed (8%), at risk of being delayed (1%), or canceled (4%) also for reasons in addition to the crisis. For some countries project delays may create capacity shortages because the decline in economic activity is not expected to significantly reduce the need for new generation capacity, which had barely been able to keep up with the growing demand in the years before the crisis.



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

In telecommunications, where new projects account for just a fraction of annual investment, three projects reached closure in the fourth quarter of 2009, with investment worth US\$320 million—down 54% compared with the fourth quarter of 2008. In 2009 as a whole, 25 telecommunications projects (including new licenses) reached closure, with investment worth US\$5.8 billion—down 22% compared with 2008. Additional investment in existing operators, which accounts for most investment in the sector, grew by 3% in 2008, was expected to slow in 2009, and is projected to remain flat in 2010.⁸ That trend represents a sharp slowdown from the 25% average annual growth rates reported in 2004–07.⁹

In water and sewerage six projects reached closure in the fourth quarter of 2009, with investment worth US\$240 million, down 75% compared with the fourth quarter of 2008. That brought the total for 2009 to 35 water projects with investment worth US\$2 billion. This investment level was 30% lower than in 2008 and the lowest since 2003. China accounted for 28 of the 35 water projects reaching closure in 2009. The rest were five concessions for small water utilities—two in Brazil and one each in Haiti, India, and the Philippines—and two build-operate-transfer contracts for treatment plants, in Algeria and Jordan. The number of water projects reaching financial or contractual closure fell by 44% in 2009.

In transport 12 projects reached closure in the fourth quarter of 2009, with investment worth US\$5.5 billion, up 13% compared with the fourth quarter of 2008. That brought the total for 2009 to 56 transport projects with investment worth US\$20.2 billion. But this investment level was 12% lower than that in 2008—and the lowest since 2005. Airports and ports had the largest declines in 2009. Investment in airports fell by 36%, to US\$1.6 billion. Investment in ports dropped by 39%, to US\$2.9 billion. Investment in roads decreased by just 1%, to US\$13.9 billion, remaining at the third highest level since the mid-1990s. Investment in railways grew by 14%, to US\$1.9 billion. Large projects accounted for the decline in transport investment in 2009. Investment in projects of US\$1 billion or more dropped by 35%, to US\$6 billion. By contrast, investment in projects of US\$500 million–1 billion grew by 9%, to US\$7.1 billion. And investment in projects of less than US\$500 million remained stable, at US\$7 billion. The number of transport projects reaching financial or contractual closure declined by just 3% in 2009.

Transport had the largest share of projects delayed, canceled, or at risk of delay by the end of the fourth quarter of 2009. Of the reviewed transport projects, about 32% by investment had been delayed (18%), at risk of being delayed (10%), or canceled (4%) as a result of the crisis. This share was four percentage points higher than the share reported for the end of the third quarter of 2009, and seven points higher than that for the end of the second quarter. Moreover, 8% of transport projects by investment had been affected by the crisis but were delayed (5%), at risk of being delayed (1%), or canceled (2%) for reasons in addition to the crisis. This share is four percentage points lower than that reported for the end of the third quarter of 2009.

The impact in this sector is not surprising given the decline in global demand for transport. Use of road assets is directly correlated with economic activity, which slowed in 2009. Demand for port assets is a function of global trade, which plummeted in 2009. Airports rely on discretionary corporate and leisure travel, which also declined in 2009. But the slowdown in transport demand varied across developing countries, from a sudden drop in demand for all transport assets, as in Mexico, to a slowing of rapid growth in demand for roads and airports, as in Brazil, Colombia, and India.¹⁰ In addition, the decline in transport demand appears to have bottomed out in 2009, with the trend since then flattening or in some cases even reversing.¹¹

⁸ ITU, *Confronting the Crisis: ICT Stimulus Plans for Economic Growth*, 2nd ed., Geneva, October 2009.

⁹ "Private Activity in Infrastructure Down, but Still around Peak Levels," PPI data update note 28, November 2009.

¹⁰ Fitch Ratings, *Global Infrastructure and Project Finance 2010 Outlook*, New York, March 1, 2010.

¹¹ Fitch Ratings, *Global Infrastructure*.

**PRIVATE PARTICIPATION
IN INFRASTRUCTURE DATABASE****7. New PPI activity varies across developing regions, with investment in the fourth quarter higher in Latin America and South Asia and stable or lower in the other developing regions.**

South Asia (SA) had 15 projects close in the fourth quarter of 2009, with investment worth US\$4.5 billion—up 83% compared with investment in the fourth quarter of 2008 (figure 11). That brought the total for the region in 2009 to 62 projects with investment worth US\$31 billion. This activity represented a peak for new projects in the region and an 82% growth in investment compared with 2008. But the growth was concentrated in India, which has accounted for most of the activity in the region. If India were excluded, South Asia would have had eight new projects with investment worth US\$470 million in the fourth quarter of 2009—and 18 new projects for US\$1.7 billion in the year as a whole, 24% more than investment in 2008 with India excluded. All project sizes helped drive the investment growth in 2009 (figure 12). Investment in projects of US\$1 billion or more increased by 75%, to US\$17.7 billion. Investment in projects of US\$500 million–1 billion rose by 92%, to US\$6.7 billion. And that in projects of less than US\$500 million grew by 93%, to US\$6.6 billion. The number of projects reaching closure in South Asia in 2009 was up 63% compared with 2008.

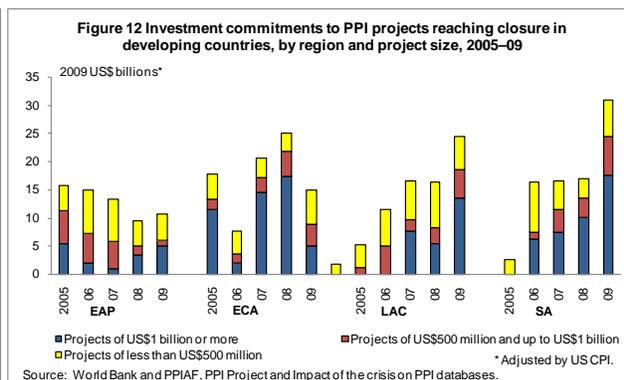
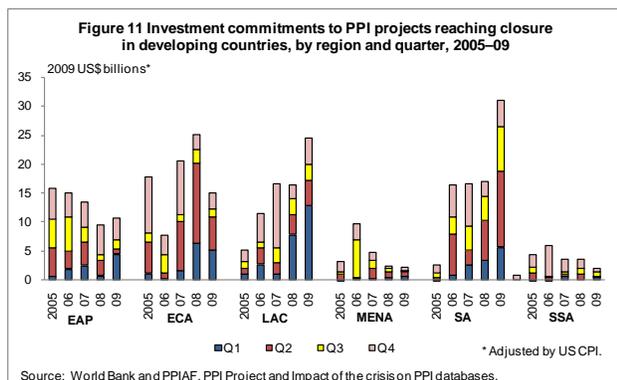
Latin America and the Caribbean (LAC) had 16 projects close in the fourth quarter of 2009, with investment worth US\$4.5 billion, up 95% compared with investment in the same quarter of 2008. That brought activity in 2009 to 50 projects with investment worth US\$24.4 billion, up 49% compared with investment in 2008. But the investment growth was concentrated in two Brazilian projects that closed in the first quarter of 2009: the US\$4.17 billion, 3.3-gigawatt Jirau hydropower plant and the US\$5.7 billion, 3.3-gigawatt San Antonio hydropower plant, which together accounted for more than 40% of the total regional investment in 2009. If these two projects were excluded, investment in the region in 2009 would have declined by 11%. The number of projects reaching financial or contractual closure in the region remained stable.

East Asia and Pacific (EAP) had 10 projects reach closure in the fourth quarter of 2009, with investment worth US\$3.7 billion, down 28% from the investment level in the same quarter of 2008. That brought activity in the region in 2009 to 67 projects with investment worth US\$10.7 billion, up 13% compared with investment in 2008. But just two projects (the concession of the Philippines' transmission company and the initial public offering of Chinese Longyuan Power Group Corporation) accounted for 48% of the regional investment in 2009. If projects of US\$1 billion or more were excluded, investment in East Asia would have fallen by 9% in 2009. The number of projects reaching closure in 2009 fell by 13%.

Among the developing regions, Europe and Central Asia (ECA) continues to be the most affected by declining investment. The region had nine projects reach closure in the fourth quarter of 2009, with investment worth US\$2.8 billion, up 6% compared with the same quarter of 2008. In the year as a whole, the region had 51 projects with investment worth US\$15 billion, reflecting a 40% drop in investment compared with 2008. Projects of US\$1 billion or more accounted for most of the decline in investment. If these projects were excluded, investment in the region would have grown by 30% in 2009. By contrast, investment in projects of less than US\$500 million rose by 84%, to US\$6.2 billion. The number of projects reaching closure in Europe and Central Asia rose by 13% in 2009.

The Middle East and North Africa (MENA) had two projects with investment worth US\$660 million reaching closure in the fourth quarter of 2009. That brought total activity in the region in 2009 to eight projects with investment worth US\$2.2 billion, 7% lower than in 2008. Sub-Saharan Africa (SSA) also had two projects close in the fourth quarter of 2009, with investment worth US\$530 million, 65% less than in the same quarter of 2008. That brought total activity in the region in 2009 to 15 projects with investment worth US\$1.9 billion, down 46% compared with investment in 2008.

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE



For the three most active developing regions (Europe and Central Asia, Latin America, and South Asia) the share of reviewed projects by investment that had been delayed, at risk of being delayed, or canceled because of the crisis by the end of the fourth quarter of 2009 ranged between 17% and 23% (table 4). For Latin America and South Asia this share reflected deteriorations of a few percentage points from the end of the third quarter, while for Europe and Central Asia the share remained stable. The other regions had a smaller share of investment affected, ranging from 13% in the Middle East and North Africa to 8% in East Asia and zero in Sub-Saharan Africa. The share of projects delayed, at risk of being delayed, or canceled because of the crisis as well as implementation issues (delays in land acquisition and government approvals) was highest for East Asia (20% of investment), South Asia (15%), and Europe and Central Asia (11%). In East Asia most of the affected investment related to five independent power producer projects in Thailand, which were delayed because of lower projected demand for electricity. Europe and Central Asia and Latin America accounted for most project restructurings due to the crisis.

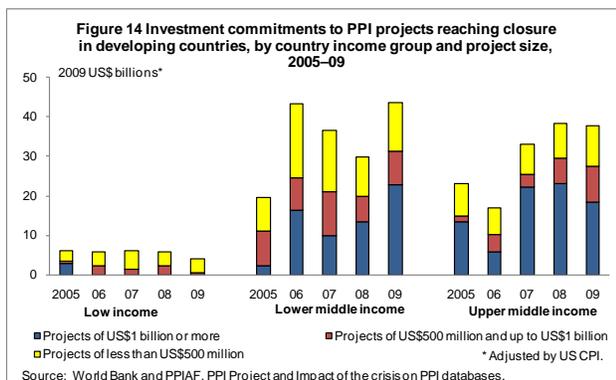
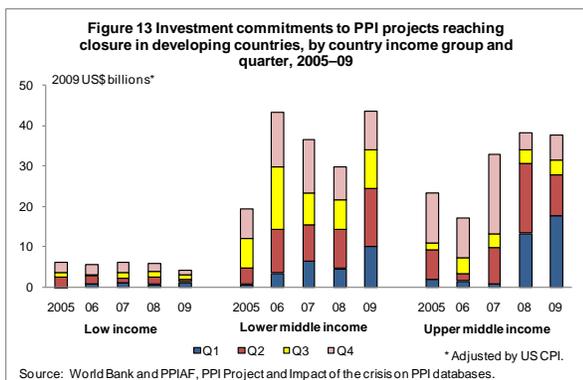
8. New PPI activity varies across country income groups, with investment in the fourth quarter higher in middle-income countries and lower in low-income countries.¹² In the fourth quarter of 2009 lower-middle-income countries had 25 projects reach closure, with investment worth US\$9.6 billion, up 16% compared with the same period of 2008 (figure 13). In 2009 as a whole, this group of countries had 128 projects with investment worth US\$43.6 billion. This investment level is 46% higher than that reported in 2008 and one of the highest since the mid-1990s for this group. India accounted for most of the investment growth. If that country were excluded, investment in lower-middle-income countries would have grown by just 1%, to US\$14.3 billion, half the level reported in 2006 with India excluded. Projects of US\$500 million or more drove the growth in 2009 (figure 14). The total number of projects reaching closure was up 7% compared with 2008.

Upper-middle-income countries had 19 projects reaching closure in the fourth quarter of 2009, with investment worth US\$6.1 billion, up 45% compared with investment in the fourth quarter of 2008. That brought total activity in this country group in 2009 to 88 projects with investment worth US\$37.6 billion, down 2% compared with investment in 2008. Brazil accounted for a large share of the investment growth, and Russia for the investment decline. If Brazil and Russia were excluded, investment in upper-middle-income countries in 2009 would have grown by 2%. The total number of projects reaching closure in this country group in 2009 was up 6% compared with 2008.

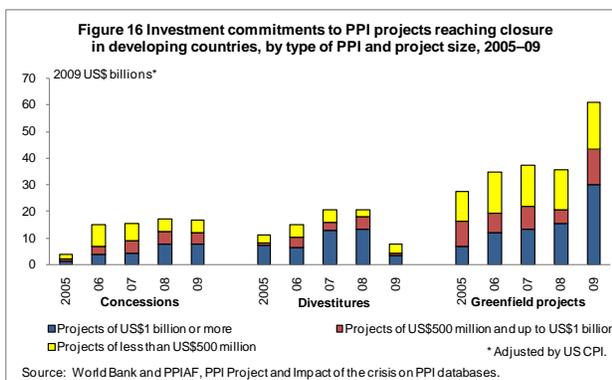
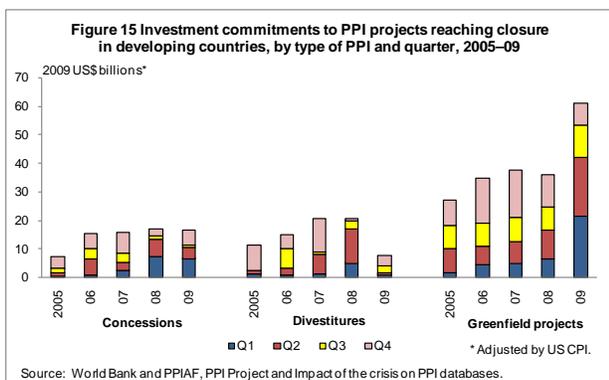
Low-income countries had 10 projects with investment worth US\$1 billion reaching closure in the fourth quarter of 2009. That is half the investment in the same quarter of 2008. In 2009 as a whole, this country group had 37 projects with investment worth US\$4.1 billion, down 31% compared with investment in 2008. By contrast, the number of projects reaching closure in 2009 was up 16%. The implementation of small projects such as rental power plants accounts for the divergent trends in investment and number of projects.

¹² Surveyed countries are classified by income group as low income (2007 GNI per capita of US\$935 or less), lower middle income (US\$936–3,705), or upper middle income (US\$3,706–11,455).

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE



9. Greenfield projects show a decline in investment, while concessions and divestitures start to show growth. In the fourth quarter of 2009, 29 greenfield projects (build-operate-transfer and build-operate-own projects and merchant facilities) reached financial closure, with investment worth US\$7.8 billion—down 31% compared with investment in the fourth quarter of 2008 (figure 15). That brought the total for greenfield projects in 2009 to 171, with investment worth US\$61 billion, up 70% from investment in 2008. Greenfield projects have shown the most resilience during the crisis, with all project sizes reflecting investment growth in 2009 (figure 16). Investment in projects of US\$1 billion or more grew by 94%, to US\$30 billion. Investment in projects of US\$500 million–1 billion increased by 150%, to US\$13.4 billion. Investment in projects of less than US\$500 million rose by 17%, to US\$17.6 billion. The number of greenfield projects reaching financial closure was 19% higher in 2009 than in 2008.



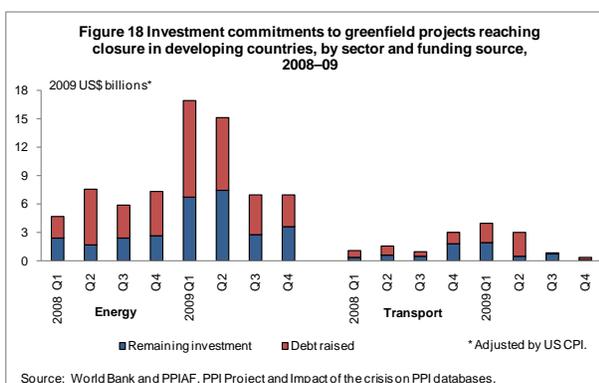
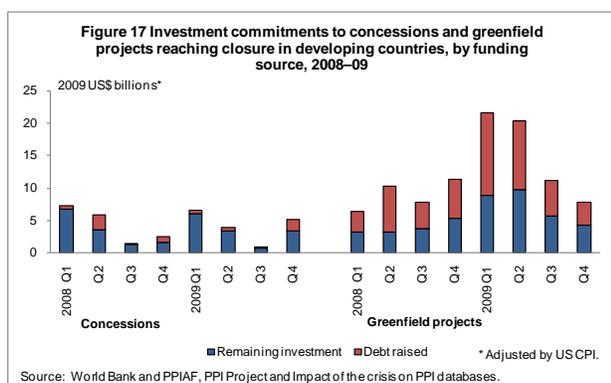
Concessions showed a recovery for the first time since the second quarter of 2008. In the fourth quarter of 2009, 14 concessions reached closure, attracting investment worth US\$5.1 billion, more than twice the investment reported in the same quarter of 2008. That brought the total for concessions closing in 2009 to 44, with investment worth US\$16.5 billion. Compared with 2008, the number of concessions reaching closure was down 17%, while investment dropped 3%. Divestiture activity also recovered for the first time since the second quarter of 2008. Eight divestitures reached contractual closure in the fourth quarter of 2009, attracting investment worth US\$4.1 billion, four times the investment reported in the fourth quarter of 2008. That brought the total number of divestitures in 2009 to 29, down 12% compared with 2008. Investment totaled US\$8 billion, down 62% from 2008.

Greenfield projects continue to be best able to raise debt (figure 17). Within the greenfield category, energy projects, particularly power plants, have raised the most debt since 2008 (figure 18). Concessions, by contrast, have been able to raise little financing. Many reached contractual closure (with the concession contract being signed and the private operator taking over the assets) with the

PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

agreement that funding would be raised later. Of the 44 concessions that reached contractual closure in 2009 (31 of which were for transport projects), only 9 had publicly available information on financial closure, suggesting that many of the concessions reaching contractual closure in 2009 continued to experience delays in securing the financing required.

Concessions have been the type of PPI most affected by project delays and cancellations as a result of the crisis. By the end of the fourth quarter of 2009 around 27% of the reviewed concessions by investment had been delayed (12%), at risk of being delayed (14%), or canceled (1%) because of the crisis. The investment share in concessions affected by the crisis by the end of the fourth quarter was significantly higher than the share reported for the end of the third quarter (18%). Greenfield projects have also been affected by delays and the risk of delays. By the end of the fourth quarter of 2009 around 21% of reviewed greenfield projects by investment had been delayed (10%), at risk of being delayed (5%), restructured (5%), or canceled (2%) as a result of the crisis. This investment share was five percentage points higher than the 16% at the end of the third quarter.



10. Developing countries continue to tender and award new PPI projects. The review of projects shows that 16 countries awarded 52 projects totaling US\$12 billion in the fourth quarter of 2009, and 33 awarded 108 projects with investment worth US\$26.6 billion in the first three quarters of the year, that have yet to start looking for finance. These 160 projects are mostly in transport (37 projects worth US\$21.9 billion) and energy (98 projects worth US\$14.8 billion), but also in water and sewerage (17 projects worth US\$1.6 billion) and telecommunications (8 projects worth US\$250 million). And while they are in all developing regions, most are in Europe and Central Asia (18 projects for US\$12.8 billion), Latin America (57 projects worth US\$8.8 billion), East Asia (50 projects worth US\$8.1 billion), and South Asia (25 projects worth US\$5.5 billion). In addition, at least 83 projects, involving investment of US\$28.6 billion, were in the final tender stage at the end of the fourth quarter of 2009 (to be awarded in the first quarter of 2010).

Many developing country governments remain committed to their PPP and privatization programs and are trying to facilitate their implementation by restructuring them for financial viability in today's market conditions. For example, in the fourth quarter of 2009 Poland and Russia announced ambitious privatization programs for 2010 and 2011 as part of strategies to reduce their fiscal deficits and attract required investment in infrastructure. The same quarter Turkey reinitiated the privatization of electricity generation plants, which had stalled in September 2008 with the collapse of Lehman Brothers, one of the financial advisers. Earlier in 2009 Colombia, India, Latvia, and Mexico restructured projects to improve their attractiveness to the private sector in the new market environment.¹³

Conclusion. Recovery in PPI investment remains limited to a few economies. While these success stories have boosted the totals, the vast majority of developing countries remain affected by the crisis. If large projects (US\$1 billion or more) were excluded, almost all developing regions would have

¹³ "Assessment of the Impact of the Crisis on New PPI Projects," Updates 5 (February 2010) and 4 (October 2009).



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

seen investment decline both in the fourth quarter of 2009 (compared with the same period of 2008) and in the entire year. South Asia was the exception, thanks to the strong activity in India. Latin America was also an exception, but just in the fourth quarter of 2009 (even with Brazil excluded). Among sectors, only energy had investment growth for all project sizes, thanks to the activity in new power plants. There is also evidence that new projects continue to be postponed and canceled because of the financial crisis.

The selectivity in investment growth and the project postponements and cancellations indicate that the “flight to quality” continues. This survey confirms the finding of the previous updates that the projects most likely to reach closure are those with strong economic and financial fundamentals and the backing of financially solid sponsors. Projects able to raise funding can do so only at a higher cost and with more stringent conditions (lower debt/equity ratios, shorter tenors, and more conservative structures). The countries least affected by the more stringent financial conditions have been those able to lessen the impact of the global financial and economic crisis on their economies and tap into domestic sources of funding.

Developing country governments remain committed to their PPP programs and are trying to support implementation of new projects by restructuring them and facilitating financing. In addition, multilateral and bilateral agencies continue to provide critical funding to private infrastructure projects.

In the coming quarters this analysis will be refined to assess the extent to which all these trends continue.

Table 1 Infrastructure projects with private participation awarded, raising financing, or at advanced stage of tender in developing countries, by project status and impact of the financial crisis, 2008–09

| Type of impact | Awarded | Closed financing ^a | Looking for finance | Tender in progress | Tender delayed | Tender canceled | Canceled | Total |
|---------------------------------------|------------|-------------------------------|---------------------|--------------------|----------------|-----------------|-----------|------------|
| No major impact reported | 172 | 446 | 50 | 64 | 0 | 0 | 0 | 732 |
| Raised financing but at a higher cost | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| <i>Project restructuring</i> | | | | | | | | |
| Because of the crisis | 4 | 3 | 1 | 1 | 2 | 0 | 0 | 11 |
| Because of more than the crisis | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 |
| <i>Delayed</i> | | | | | | | | |
| Because of the crisis | 3 | 18 | 16 | 1 | 9 | 0 | 0 | 47 |
| Because of more than the crisis | 14 | 4 | 14 | 4 | 6 | 0 | 0 | 42 |
| For reasons other than the crisis | 6 | 3 | 12 | 4 | 13 | 0 | 0 | 38 |
| <i>At risk of delay</i> | | | | | | | | |
| Because of the crisis | 3 | 10 | 14 | 0 | 0 | 0 | 0 | 27 |
| Because of more than the crisis | 3 | 0 | 4 | 0 | 0 | 1 | 0 | 8 |
| For reasons other than the crisis | 4 | 1 | 2 | 5 | 0 | 0 | 0 | 12 |
| <i>At risk of cancellation</i> | | | | | | | | |
| Because of the crisis | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Because of more than the crisis | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| For reasons other than the crisis | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| <i>Canceled</i> | | | | | | | | |
| Because of the crisis | 0 | 1 | 0 | 0 | 0 | 7 | 4 | 12 |
| Because of more than the crisis | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 13 |
| For reasons other than the crisis | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 10 |
| Total | 209 | 488 | 119 | 83 | 30 | 25 | 11 | 965 |

a. See footnote 4 for definition of financial or contractual closure by type of project.

Source: World Bank and PPIAF, Impact of the financial crisis on PPI database.



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

Table 2 Investment commitments to infrastructure projects with private participation awarded, raising financing, or at advanced stage of tender in developing countries, by project status and impact of the crisis, 2008–09

(US\$ millions)

| Type of impact | Awarded | Closed financing ^a | Looking for finance | Tender in progress | Tender delayed | Tender canceled | Canceled | Total |
|---------------------------------------|---------------|-------------------------------|---------------------|--------------------|----------------|-----------------|--------------|----------------|
| No major impact reported | 33,021 | 128,492 | 24,794 | 22,069 | 0 | 0 | 0 | 208,376 |
| Raised financing but at a higher cost | 0 | 1,530 | 230 | 0 | 0 | 0 | 0 | 1,760 |
| <i>Project restructuring</i> | | | | | | | | |
| Because of the crisis | 8,886 | 1,421 | 1,940 | 426 | 3,200 | 0 | 0 | 15,873 |
| Because of more than the crisis | 0 | 0 | 4,100 | 0 | 0 | 0 | 553 | 4,653 |
| <i>Delayed</i> | | | | | | | | |
| Because of the crisis | 3,951 | 13,338 | 7,864 | 448 | 11,024 | 0 | 0 | 36,624 |
| Because of more than the crisis | 6,397 | 3,040 | 16,298 | 201 | 695 | 0 | 0 | 26,632 |
| For reasons other than the crisis | 838 | 1,565 | 5,789 | 2,797 | 6,072 | 0 | 0 | 17,061 |
| <i>At risk of delay</i> | | | | | | | | |
| Because of the crisis | 1,330 | 8,514 | 10,768 | 0 | 0 | 0 | 0 | 20,612 |
| Because of more than the crisis | 489 | 0 | 2,119 | 0 | 0 | 1,150 | 0 | 3,758 |
| For reasons other than the crisis | 0 | 1,150 | 2,134 | 1,136 | 0 | 0 | 0 | 4,420 |
| <i>At risk of cancellation</i> | | | | | | | | |
| Because of the crisis | 0 | 0 | 1,390 | 0 | 0 | 0 | 0 | 1,390 |
| Because of more than the crisis | 0 | 0 | 800 | 470 | 0 | 0 | 0 | 1,270 |
| For reasons other than the crisis | 0 | 0 | 0 | 1,020 | 0 | 0 | 0 | 1,020 |
| <i>Canceled</i> | | | | | | | | |
| Because of the crisis | 0 | 9 | 0 | 0 | 0 | 2,814 | 2,928 | 5,751 |
| Because of more than the crisis | 0 | 0 | 0 | 0 | 0 | 9,652 | 450 | 10,102 |
| For reasons other than the crisis | 0 | 0 | 0 | 0 | 0 | 14,340 | 2,202 | 16,542 |
| Total | 54,912 | 159,060 | 78,226 | 28,568 | 20,990 | 27,956 | 6,133 | 375,845 |

a. See footnote 4 for definition of financial or contractual closure by type of project.

Source: World Bank and PPIAF, Impact of the financial crisis on PPI database.



PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

Table 3 Investment commitments to infrastructure projects with private participation awarded, raising financing, or at advanced stage of tender in developing countries, by sector and impact of the crisis, 2008–09
(US\$ millions)

| Type of impact | Energy | Telecommunications | Transport | Water and sewerage | Total |
|---------------------------------------|----------------|--------------------|----------------|--------------------|----------------|
| No major impact reported | 141,416 | 10,596 | 49,227 | 7,137 | 208,376 |
| Raised financing but at a higher cost | 1,760 | 0 | 0 | 0 | 1,760 |
| <i>Project restructuring</i> | | | | | |
| Because of the crisis | 3,938 | 0 | 11,935 | 0 | 15,873 |
| Because of more than the crisis | 100 | 0 | 4,553 | 0 | 4,653 |
| <i>Delayed</i> | | | | | |
| Because of the crisis | 13,113 | 0 | 23,500 | 12 | 36,624 |
| Because of more than the crisis | 17,318 | 2,524 | 6,790 | 0 | 26,632 |
| For reasons other than the crisis | 4,610 | 3,587 | 8,548 | 316 | 17,061 |
| <i>At risk of delay</i> | | | | | |
| Because of the crisis | 7,930 | 0 | 12,682 | 0 | 20,612 |
| Because of more than the crisis | 1,992 | 0 | 1,697 | 69 | 3,758 |
| For reasons other than the crisis | 2,286 | 0 | 2,134 | 0 | 4,420 |
| <i>At risk of cancellation</i> | | | | | |
| Because of the crisis | 0 | 0 | 1,275 | 115 | 1,390 |
| Because of more than the crisis | 1,270 | 0 | 0 | 0 | 1,270 |
| For reasons other than the crisis | 0 | 0 | 0 | 1,020 | 1,020 |
| <i>Canceled</i> | | | | | |
| Because of the crisis | 10 | 73 | 5,658 | 9 | 5,751 |
| Because of more than the crisis | 7,665 | 0 | 2,437 | 0 | 10,102 |
| For reasons other than the crisis | 14,200 | 400 | 1,942 | 0 | 16,542 |
| Total | 217,608 | 17,180 | 132,379 | 8,679 | 375,845 |

Source: World Bank and PPIAF, Impact of the financial crisis on PPI database.


 PRIVATE PARTICIPATION
IN INFRASTRUCTURE DATABASE

Table 4 Investment commitments to infrastructure projects with private participation awarded, raising financing, or at advanced stage of tender in developing countries, by region and impact of the crisis, 2008–09
(US\$ millions)

| Type of impact | EAP | ECA | LAC | MENA | SA | SSA | Total |
|---------------------------------------|---------------|----------------|---------------|--------------|---------------|---------------|----------------|
| No major impact reported | 32,700 | 47,537 | 62,619 | 6,720 | 48,228 | 10,573 | 208,376 |
| Raised financing but at a higher cost | 0 | 0 | 0 | 0 | 1,375 | 385 | 1,760 |
| <i>Project restructuring</i> | | | | | | | |
| Because of the crisis | 21 | 13,068 | 2,784 | 0 | 0 | 0 | 15,873 |
| Because of more than the crisis | 0 | 4,000 | 100 | 0 | 553 | 0 | 4,653 |
| <i>Delayed</i> | | | | | | | |
| Because of the crisis | 2,045 | 10,283 | 5,278 | 312 | 18,707 | 0 | 36,624 |
| Because of more than the crisis | 9,642 | 4,355 | 526 | 0 | 12,109 | 0 | 26,632 |
| For reasons other than the crisis | 2,184 | 4,411 | 3,371 | 60 | 6,235 | 800 | 17,061 |
| <i>At risk of delay</i> | | | | | | | |
| Because of the crisis | 1,613 | 5,987 | 9,114 | 60 | 3,838 | 0 | 20,612 |
| Because of more than the crisis | 0 | 148 | 1,150 | 0 | 2,460 | 0 | 3,758 |
| For reasons other than the crisis | 1,150 | 0 | 0 | 0 | 3,270 | 0 | 4,420 |
| <i>At risk of cancellation</i> | | | | | | | |
| Because of the crisis | 0 | 1,275 | 0 | 115 | 0 | 0 | 1,390 |
| Because of more than the crisis | 800 | 0 | 0 | 0 | 470 | 0 | 1,270 |
| For reasons other than the crisis | 1,020 | 0 | 0 | 0 | 0 | 0 | 1,020 |
| <i>Canceled</i> | | | | | | | |
| Because of the crisis | 224 | 2,599 | 2,284 | 633 | 10 | 0 | 5,751 |
| Because of more than the crisis | 0 | 8,484 | 363 | 500 | 305 | 450 | 10,102 |
| For reasons other than the crisis | 0 | 14,200 | 140 | 400 | 1,802 | 0 | 16,542 |
| Total | 51,400 | 116,347 | 87,729 | 8,800 | 99,362 | 12,208 | 375,845 |

Source: World Bank and PPIAF, Impact of the financial crisis on PPI database.