

PPI in poor countries

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How to increase private participation in infrastructure management and investment

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To overcome huge shortfalls in access to infrastructure services, poor countries need much higher investment levels and more expertise to build, operate, and maintain infrastructure facilities. The private sector is one source for such resources, and projects involving private participation in infrastructure (PPI) have increasingly been used in developing countries. But PPI investment has been much lower in poor countries than in better-off developing countries—and has been more affected by the global financial crisis. How can PPI projects play a larger role in improving infrastructure service provision in these countries?

Infrastructure service levels in poor countries remain extremely low, and the costs of services high. Non-oil-producing low-income countries in Africa, for example, would need to spend the equivalent of 22–36 percent of GDP annually for the next decade to reach even modest service level targets like those proposed for water and sanitation in the Millennium Development Goals. Today these countries are spending only 5–6 percent of GDP from public budgets and another 2–3 percent from external sources such as official development assistance (ODA) and the private sector (Foster and Briceño-Garmendia 2010).

In IDA countries private participation in infrastructure (PPI) has helped improve services, especially in telecommunications.¹ But the contribution is small compared with that in blend and non-IDA countries (figure 1). The PPI Project Database, maintained by PPIAF and the World Bank, indicates that in 1995–2008 total per capita PPI investment in IDA countries was about 64 percent of that in blend countries and only about 23 percent of that in non-IDA countries.

In other words, non-IDA countries had 4.4 times as much PPI-related investment per capita over this period as IDA countries did. Moreover, in the wake of the global financial crisis, the role of PPI in poor countries appears to be diminishing rather than strengthening.

PPI is nevertheless important in IDA countries compared with other sources of investment. In African IDA countries, for example, PPI accounts for more infrastructure investment than any other source except government budgets—almost 78 percent more than ODA. PPI represents about 25 percent of the total in the region's IDA countries and about 14 percent in its blend and non-IDA countries (with ODA, government budgets, and non-OECD financiers such as China accounting for the rest). Globally, PPI investment had grown to about 2 percent of GDP in IDA countries by 2007, almost twice the level in blend and non-IDA countries. The GDP share in IDA countries increased by nearly 100 percent in 2003–07, but the global financial crisis has wiped out much of that gain.

What works—and what does not?

Available data, recent research, and anecdotal evidence from practitioners point to the types of PPI projects demonstrating viability and sustainability—and producing significant efficiency gains—in IDA countries since the late 1990s.

Merchant telecommunications projects

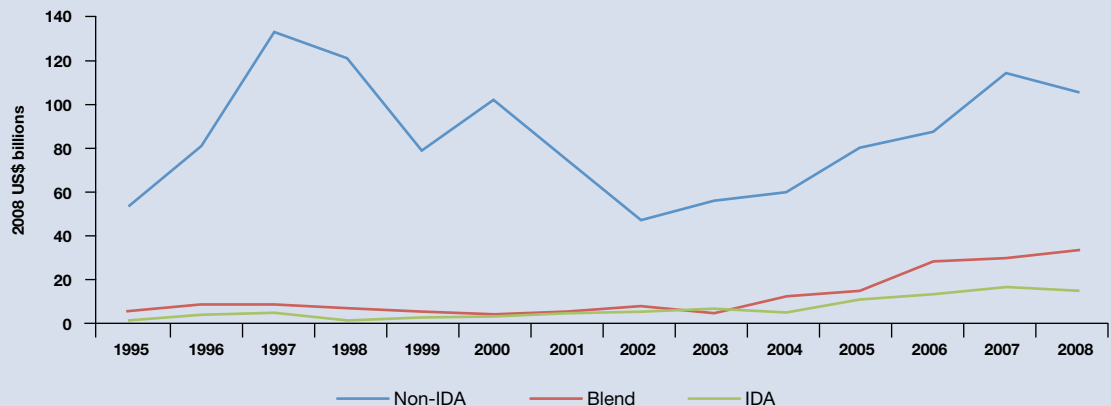
More than 60 percent of PPI investment in IDA countries in 1995–2008 was in telecommunica-

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FIGURE 1

In IDA countries, only a small contribution from private participation in infrastructure

Infrastructure investment associated with PPI projects, 1995–2008



Source: World Bank and PPIAF, PPI Project Database.

tions (compared with about 50 percent in blend and non-IDA countries). Most of that investment came through merchant projects, which circumvent many of the obstacles that limit the use of other kinds of PPI arrangements in IDA countries. Merchant projects have no need for project preparation or procurement by government. They have robust revenue streams, even in poor countries, because they are often secured by prepayment systems. They involve relatively low capital costs, and most benefit from unregulated tariffs.

Arguably, merchant projects are not even public-private partnerships in the usual sense, because they typically involve no public-private risk sharing formalized in contractual agreements. But they may help strengthen popular support for more traditional public-private partnerships in some countries by promoting the idea that private service provision offers efficiencies over government provision. They may also ease the introduction of prepayment in such sectors as water and electricity, where it has sometimes met with customer resistance.

Independent power producers

Independent power producers (IPPs) are relatively common in IDA countries, typically accounting for 30–35 percent of all PPI-related investment commitments in such countries as Indonesia and Vietnam, slightly less in Bangladesh, and close to 50 percent in Pakistan. The IPP arrangements often include power purchase agreements denominated in hard currency to protect operators from foreign exchange risks. IPPs in African IDA countries tend to be small and relatively expensive (Kenya's four IPPs are all less than 75 mega-

watts)—because of the small size of national markets and lack of regional project development but also because of poor project preparation and noncompetitive procurement. As a result, in Africa IPPs contribute smaller shares to overall PPI investment in many countries and are less common than in some other regions, with only 23 IPPs operating in Africa's 39 IDA countries.

Port concessions

PPI port projects appear to be viable in many IDA countries, although the best-practice PPI approach, the landlord port model, is still rare. Private operation of ports has worked reasonably well in Ghana, Nigeria, Tanzania, and several other African IDA countries. Nigeria's massive port reform program led to more than two dozen concessions in this sector, although many are being restructured. PPI port projects have been reasonably successful in Indonesia and Vietnam, although they contribute relatively small shares of PPI-related investment. These projects appear to work well because ports generate hard currency revenues, tend to play a critical role in a country's transport network (making it difficult for governments to tolerate massive inefficiency), and have experienced strong growth in container traffic since the early 1990s.

Toll road projects

Toll road projects have proliferated in India (a blend country), where highway projects made up more than half of all PPI transactions concluded in 1990–2006 and accounted for more investment commitments in 2003–07 than any other sector except telecommunications. High traffic volumes and methods for lowering private part-

Some types of PPI projects bring greater gains than others

ners' risks and costs (such as annuity concessions and viability gap funding) appear to have helped spur the growth in India. Other countries, such as Vietnam, are considering grant support programs similar to India's. But in African IDA countries (except Nigeria) low traffic volumes and limited funding for risk and cost reduction have severely limited the use of toll roads.

Water projects

Across country income groups, PPI-related investment is much lower in water and sanitation than in other sectors. Traditional brownfield concessions in this sector, involving private responsibilities for distribution and high levels of investment, have become rare since the Asian financial crisis. But PPI projects aimed at operational efficiency and service quality rather than private investment appear to be proliferating even in IDA countries (Marin 2009). Such projects often involve investment, but it is usually covered by government and donor funding (as in the *affermage* contracts in West Africa and some design-build-lease projects) or annual cash flows (as in projects in Côte d'Ivoire and Mali).

Small-scale PPI

Little systematic information is available on small-scale PPI. But studies estimate that in some developing countries, particularly African IDA countries, tens of thousands of small-scale private service providers are active in the water and electricity sectors. In Nairobi, for example, community-managed water schemes serve at least 60 percent of households in urban areas and even larger shares in slum and periurban areas. Most operate like micro merchant projects, without government risk sharing or regulation.

To make the most of these providers, the challenge is to legalize them, and thereby control costs and quality, and support skill development (to help them understand, for example, that cost recovery is necessary for access to finance)—all without bureaucratizing service delivery and dampening the entrepreneurial spirit of operators (Baker 2009). While the development community long hoped that reformed utilities would make these small-scale service providers unnecessary, they are now beginning to be recognized as permanent solutions in some countries.

Rail concessions

Rail concessions have generated much smaller shares of PPI investment in IDA countries than in blend or non-IDA countries. While common in Africa, they usually rely on donors or host governments for capital investment. Rail concessions face unique problems. In poor countries huge rehabilitation investments are often required to

make systems efficient and commercially viable. Passenger services are often politically necessary but require subsidization. Cross-border services, while necessary to create scale economies, often complicate the preparation of PPI arrangements. And overstaffing, often tolerated by governments as a form of employment generation, can make privatization of these systems costly and politically difficult because of the need for massive retrenchments.

Key factors in success

What factors appear to be linked to the success of PPI projects in IDA countries? And how can donors and international financial institutions help ensure that these factors are in place?

Available project opportunities

Many IDA countries have few real opportunities for bankable PPI projects because revenue streams are generally too small to attract meaningful private risk taking. Successful PPI programs maximize demonstration effects by focusing on the few project opportunities with a strong chance for success—and leaving the rest for funding by government budgets, ODA, or non-OECD financiers. Donors and international financial institutions can help by avoiding preemption of potentially bankable PPI projects by ODA or non-OECD financing or attempts to pursue such projects where modest efficiency improvements offer easier opportunities for quick wins.

Enabling environment

A strong business climate is critical to the success of PPI projects because it helps facilitate affordable project finance. India's investment-grade credit rating, achieved while the country was still classified as low income, has played a big part in its PPI success. Strong central government leadership in easing restrictions on doing business—and showing commitment to PPI—is critical in improving the business climate. Donors and international financial institutions can help by providing more upstream capacity-building assistance to support reforms in the enabling environment for PPI.

Project preparation

PPI projects in IDA countries commonly require upstream preparation—involving sector, policy, and legal and regulatory reforms. This upstream preparation is expensive, time consuming, and, because it may not lead to deal closure, ultimately risky. Countries with access to adequate funding for project preparation, from government budgets or from donors and international financial institutions, have better chances of success with PPI projects. But in Africa, where estimates suggest

A big increase in PPI is needed to close the financing gap

that 10 percent of a project's total investment is needed for project preparation (rather than the 3–5 percent normally cited for industrial economies), total donor funding available for PPI project preparation is only a fraction of what is needed.

PPI priorities and potential

How much PPI investment is needed to close the infrastructure financing gap in IDA countries? In Africa investment from all sources amounts to less than half of what is needed annually to meet modest service delivery targets after 10 years (Foster and Briceño-Garmendia 2010). PPI investment would have to increase by four to five times to fill that gap. Greater operating efficiency and more official assistance will also be needed if IDA countries are to have any hope of achieving minimally acceptable levels of service delivery in the next quarter century.

With attention to the kinds of success factors mentioned above, a doubling of precrisis PPI investment might be possible over the next 10 years. But such an increase will add value only to the extent that it goes to the kinds of projects that can do most toward meeting infrastructure service needs:

- Brownfield concessions in energy and transport, urgently needed to cope with rehabilitation needs stemming from chronic underfunding of operations and maintenance, but difficult to do because the investment needs are so large
- Greenfield electricity generation projects (IPPs), especially critical in Africa
- Management and lease (or *affermage*) contracts, which appear to help improve operating efficiency and service quality without requiring risky capital investment by private partners
- Small-scale PPI, already playing a major part in infrastructure service delivery in many IDA countries

Postscript: the financial crisis

By late 2009 the global effects of the financial crisis were easing, and PPI investment was once again on the increase in a few middle-income countries. But the recovery is taking place through larger projects in countries able to substitute budgetary resources (or directed loans from national development banks) for commercial finance (Izaguirre 2010). Pipelines of smaller PPI projects in poorer countries have not yet recovered and are suffering from the higher cost of project finance and shorter debt maturities, which are expected to affect the global project finance market for some time. By the end of 2010 government funding support for PPI projects is likely to be nearing exhaustion in middle-income countries, increasing their need for whatever commercial finance is available. Poor countries will be further crowded out of the PPI markets. And because of the procyclical nature of ODA, they are likely to have less of that for infrastructure investment over the next few years as well.

After several years of modest gains, IDA countries will probably see PPI investment levels recede again. These countries need support now more than ever if they are to make the best use of PPI in helping to close the massive gaps in infrastructure finance.

Note

1. *IDA countries* are those eligible for concessional credits from the International Development Association (IDA) because of poverty (currently, with gross national income per capita of less than \$1,135) and lack of creditworthiness. *Blend countries* are those eligible for funding from both IDA and the World Bank's nonconcessional window, with eligibility defined on the basis of middle- or low-income status, debt sustainability, and institutional quality. *Non-IDA countries* are ineligible for concessional funding.

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