



Thematic Evaluation

Evaluation of Public-Private Partnerships in Infrastructure



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ACRONYMS AND ABBREVIATIONS

4G	Fourth Generation program (Colombia)
ADB	Asian Development Bank
AP3F	Asia-Pacific Project Preparation Facility
ANI	National Infrastructure Agency (Colombia)
BNDES	National Bank for Economic and Social Development (Brazil)
CAF	Andean Development Bank
CAN	Country Department Andean Group
CMF	Capital Markets and Financial Institutions Division
CS	Country Strategy
CSC	Country Department Southern Cone
DNP	National Planning Department (Colombia)
E&S	Environmental and social
EBRD	European Bank for Reconstruction and Development
EIAH	European Investment Advisory Hub
EIB(G)	European Investment Bank (Group)
EPEC	European PPP Expertise Centre
EU	European Union
FDN	National Development Finance Company (Colombia)
GDP	Gross domestic product
ICT	Information and communication technology
IDB(G)	Inter-American Development Bank (Group)
IFC	International Finance Corporation
IFD	Institutions for Development Sector
IIC	Inter-American Investment Corporation
INE	Infrastructure and Environment Sector
(I)PPF	(Infrastructure) Project Preparation Facility
LAC	Latin America and the Caribbean
MDB	Multilateral development bank
MEI	Municipal and environmental infrastructure
MIF	Multilateral Investment Fund
MIGA	Multilateral Investment Guarantee Agency
MRG	Minimum Revenue Guaranty
NSG	Non-sovereign-guaranteed
OVE	Office of Evaluation and Oversight
PBL	Policy-based loan
PPI	Private Participation in Infrastructure database
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-private partnership
PSP	Private Sector Participation Facility (Brazil)
SCF	Structured and Corporate Finance Department
SCL	Social Sector
SG	Sovereign-guaranteed
TC	Technical cooperation
TSP	Transport Division of the Infrastructure Sector
VfM	Value for money
WB(G)	World Bank (Group)

EXECUTIVE SUMMARY

This evaluation assesses the work done by the Inter-American Development Bank Group (IDBG) on public-private partnerships (PPPs) in infrastructure in Latin America and the Caribbean (LAC). The evaluation comes at a unique time for IDBG given the recent merge-out of private sector operations into the Inter-American Investment Corporation (IIC). The change in strategic focus of the Multilateral Investment Fund (MIF), which used to have a PPP focus area, may also create new opportunities and challenges in terms of skills, organization, and coordination among different parts of the IDBG.

Benefits and Risks of PPPs

The significant infrastructure gaps in the region and the relevance of meeting infrastructure needs for development are well documented in many reports by the IDB and others. PPPs are a tool, a delivery model, that can help overcome some traditional problems associated with public provision and reduce the existing gap in infrastructure. No single definition of PPPs is accepted internationally; PPPs include a range of options between purely public and purely private projects. For this evaluation, IDBG's independent evaluation department (OVE) used the broad working definition in the PPP reference guide 2014: *A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.*

While potentially useful, PPPs also raise concerns that need attention. Regardless of the chosen infrastructure delivery tool, infrastructure projects, which are typically large-scale and long-term, pose a number of risks—technical, construction, operating, financial, force majeure, regulatory/political, project default, environmental and social. PPPs are not immune to these issues, requiring in all cases a strong analytical framework that could avoid extra costs and maximize value to all parties, with the long-term goal of providing better infrastructure to the region. PPPs are not easy fixes for governments seeking to scale up infrastructure investment. They require institutional developments (including project preparation capacity) that take time to consolidate before delivering their potential, and, if done poorly, can result in higher costs and less and worse services.

PPP Activity in LAC and IDBG

In the decade from 2006 to 2015, the LAC region had investments of US\$361 billion in around 1,000 PPP infrastructure projects, mostly in energy and transport. The PPP market in the region is highly concentrated in Brazil, followed at a significant distance by Mexico and Colombia, while Honduras leads in PPP investment relative to GDP. PPP activity has increased in recent years, coinciding with improvements in countries' enabling environments, and many LAC countries with strong PPP capacity have project pipelines with long lists of potential PPPs. The readiness of the PPP environment varies greatly across the region, however, and the rate of contract renegotiations has been high. While there are valid reasons for renegotiations (e.g., unforeseen changes in circumstances), many were a consequence of poor project preparation. Moreover, it is important to increase transparency and disclosure during tender and implementation of projects, particularly given recent incidences of corruption. Multilateral Development Banks (MDBs) can play important roles in supporting the development of suitable environments to attract

private investment, in providing independent project preparation assistance, and in helping close financing gaps.

This evaluation reviews IDBG's support to infrastructure PPPs at three levels: enabling environment, project preparation, and financing of PPP projects. As IDBG has no central database identifying and monitoring such infrastructure PPP-related work, OVE assembled and validated a portfolio of PPP projects consisting of operations managed by all IDBG windows at the three levels. It focused its analysis on case studies of projects in five countries: Brazil, Dominican Republic, Guyana, Peru and Uruguay. These case studies are representative of the two most important sectors – energy and transport – and included all IDBG PPP operations in the most important sub-sectors (wind and hydropower; and roads and urban transport, respectively) that were approved between 2009 and 2012. OVE also conducted a case study on Colombia, focusing in particular on enabling environment operations during the past decade.

During 2006-2015 IDBG approved 145 PPP operations for US\$5.8 billion. IDBG's work focused on improving the enabling environment and on financing PPP projects, with little support for project preparation. Most IDBG resources for the enabling environment were directed to sector reforms, institutional strengthening, and improvement of regulatory frameworks to encourage private participation in infrastructure. The financing of specific PPP projects was concentrated in the two most important PPP sectors in the region--energy and transport—and provided mostly by the private sector windows of the IDBG. The IDBG portfolio has only recently begun to include less traditional sectors (such as support for education and health infrastructure).

The IDBG provided 35% of total MDB project financing in the region, though its support was relatively small compared to the LAC PPP market. IDBG was more active in financing PPP projects than other MDBs in LAC, while the World Bank Group (WBG) was more active in enabling environment and project preparation. Most of IDBG's support (over 70% of the total portfolio) for both enabling environment and financing was approved for the five countries with the most developed PPP capacity, which also attracted most private financing.

Results of IDBG support

Objectives related to the enabling environment were mostly achieved, but projects focusing on financing had difficulties achieving their objectives in countries with weak enabling environments. In those cases, IDBG was not successful in producing the required changes to the projects (or contracts) to make them viable. Basic conditions for successfully delivering infrastructure services through PPPs were absent in half of the projects in the sample financed by IDBG. Yet the approach in those cases was not to first build prerequisites—for example, by first providing enabling environment support, and then trying new models through pilot projects that allow seeing initial results and possible positive demonstration effects—but to only engage at financial closure of the projects.

When different parts of IDBG acted independently from each other, inefficiencies were likely to increase, and IDBG missed the opportunity to provide overarching solutions to countries. Additionally, IDBG did not routinely conduct a Value for Money (VfM) analysis in its early decision-making process, and this lack of proper analysis led to the pursuit of objectives that did not maximize IDBG's potential to add value. Even when

IDBG gave ad hoc project preparation support, it was mostly at the financial phase, when it was difficult to change project conditions.

IDBG added value in a few countries (most notably Colombia and Uruguay) by having long-term engagements with governments, being flexible and adaptable to changes in context, and working in new areas with high potential. Providing a recognized “seal of approval” early in project preparation and applying IDBG environmental and social safeguard standards (which are often more rigorous than national ones) are other areas where IDBG can add value.

The longer-term sustainability of IDBG support was often uncertain. Improving disclosure practices in PPP projects is key to increasing transparency, mitigating corruption risk, and raising public awareness about the benefits of PPP projects. Additionally, although long-term local currency financing is essential for PPP sustainability, in many LAC countries capital markets are concentrated, small, and not very deep. PPP projects sometimes also have difficulty managing environmental and social (E&S) risks, which can be high for this kind of project. In general, it is difficult to manage E&S risks during the financing phase of PPP projects if they have not been identified and addressed in the design and structuring stage.

Institutional arrangements

In recent years, in line with the enhanced focus on sustainable infrastructure and private sector involvement, practically all MDBs have redesigned their approaches towards PPPs, some of them drawing on evaluations of their experience with infrastructure PPPs. The main lessons that emerge from PPP developments in the region and from MDBs’ and IDBG’s own experience include (i) the need for a clear and focused PPP strategy; (ii) the need for a critical mass of PPP skills and expertise; (iii) the need for a coordinated and collaborative approach across all parts of the institution that are involved with infrastructure PPPs, with an appropriate incentive framework; and (iv) the need for an adequate set of PPP-related instruments (including knowledge, policy, and financing).

IDBG can learn from the experiences of other MDBs to make progress in these areas. Though several IDBG strategy documents mention the importance of PPPs, IDBG does not yet have a clear overarching PPP strategy, and IDBG’s country strategies have not adequately guided the Group’s PPP activities to date. IDBG staff working on PPPs are currently dispersed in the institution, without a focal point that could help in making decisions and sharing lessons. IDBG initiatives have been undertaken to date on a case-by-case basis, responding more to sector incentives than on how best to improve infrastructure through PPPs. A more integrated approach toward IDBG activities supporting PPP enabling environment, project preparation, and financing could improve development effectiveness. Finally, while IDBG has developed some important knowledge products, PPP knowledge is not optimally managed and IDBG has not used project preparation facilities to their full potential.

Drawing on the findings of this evaluation, **OVE has recommendations for management on three levels – strategic, organizational, and operational** – which ideally should be addressed through an integrated IDBG action plan.

- **Strategic level**
 - (i) **Identify and assess the potential demand for PPPs through specific country diagnostics.** These diagnostics—a mapping of PPP opportunities—should include analyses of at least the following aspects: (i) infrastructure needs at the sector level; (ii) the PPP environment (i.e., legal and regulatory framework and institutions, the potential for private investment and maturity of local capital markets); (iii) the fiscal constraints and risks; and (iv) the type of support from multilaterals that governments are looking for.
 - (ii) **Define priorities for intervention.** This would include a general framework considering in which countries and sectors support is needed and what type of support is needed, and defining priorities.
- **Organizational structure and skills**
 - (i) **Establish a PPP focal point in the IDBG structure.** Drawing on IDBG's own experience and the lessons learned from other MDBs, assess which option is the most suitable given IDBG's current organizational structure. The focal point needs to have sufficient authority and resources to foster collaboration and pull together all relevant parts of the IDBG (public and private) to deliver seamless PPP services to clients, including investments and advice.
 - (ii) **Assess the current PPP capacities in the organization.** Currently PPP capacities are dispersed throughout the IDBG. Part of the PPP action plan should include taking an inventory of the skills IDBG currently has, identifying what is missing, and working on attracting and retaining needed skills.
 - (iii) **Reform incentives.** Staff are currently rewarded mainly according to the volume booked in their window. This is particularly problematic since it is easier to book a sovereign-guaranteed (SG) operation than a PPP. The incentives should move from IDBG approval volumes to the amounts IDBG can mobilize from private investors, and there should be incentives for collaboration (e.g., for public sector staff to identify PPP opportunities).
- **Operational level**
 - (i) **Analyze infrastructure projects in the pipeline and advise countries on the most suitable delivery model for the projects.** IDBG needs to quickly study potential projects in the pipeline and advise first on whether a project should go forward, and then on which is the best instrument to support it (e.g., by systematically reviewing, if one exists, or conducting a VfM assessment). Ideally this analysis and advice should be independent of the sector that will be originating the operation, selecting the best alternative for the client (e.g., in terms of PPP vs. public project and in terms of instruments). This assessment needs to also include governance issues (e.g., how the public sector project, PPP, or concession was awarded), as well as E&S issues (e.g., whether there was sufficient consultation up front and whether the critical E&S and climate change issues have been addressed, with clarity about the roles between the public and private sectors).
 - (ii) **Explore the use and development of new financial and advisory products tailored to countries' specific needs.** Options to explore include,

for example, local currency financing, advisory services, specific instruments to support subnational governments, and project preparation facilities.

- (iii) **Strengthen the results framework for PPP operations.** PPP operations should routinely review VfM (i.e., is a PPP the best alternative); the quantity and quality of services delivered; the costs, both for taxpayers (known and contingent fiscal impacts) and for users (e.g., considering affordability for poorer households); and the likely sustainability of the arrangements. Regarding E&S issues, it will be important to assess whether critical objectives have been met; particularly for infrastructure projects with significant E&S issues, ongoing consultation and disclosure by the concessionaire would be highly desirable.
- (iv) **Design a specific PPP knowledge strategy.** The IDBG should systematically capture and document the results and lessons learned of PPP operations through an improved system for knowledge management, recognizing that confidentiality issues could make this learning process more challenging, requiring public and non-public versions of documents.
- (v) **Systematically incorporate lessons of experience from IDBG's own operations and from other MDBs in the design and implementation of new PPP operations.** The central unit should play a critical role in engaging with other MDBs and identifying lessons and best practices.

I. INTRODUCTION

- 1.1 **Enhancing financing for infrastructure is high priority for the Latin America and Caribbean Region (LAC).** The significant infrastructure gaps in the region and the relevance of meeting infrastructure needs for development are well documented in many reports by the Inter-American Development Bank (IDB) and others.¹ In recent years public-private partnerships (PPPs) have become an increasingly important option to support infrastructure investment. At the third international conference on Financing for Development held in Addis Ababa in July 2015, multilateral development banks (MDBs) and the International Monetary Fund emphasized the “billions to trillions” challenge—that is, the need to use the (relatively few) billions of dollars of official development assistance to raise trillions of (private) capital required to achieve the Sustainable Development Goals agreed in the 2030 Development Agenda. Many of these goals rely on a substantial scale-up in infrastructure investments, and the growing consensus is that, realistically, such a scale-up can be achieved only through increased private sector participation, including the use of PPPs.
- 1.2 **The IDB Group (IDBG) has acknowledged infrastructure investments, both public and private, as a significant priority for LAC.** For example, the IDB’s Sustainable Infrastructure Strategy identified the importance of fostering financing mechanisms to leverage the participation of the private sector in infrastructure, highlighting the need for a tight collaboration between the public and private sectors to enhance the quality and quantity of infrastructure through PPPs.² The Inter-American Investment Corporation (IIC), the private sector arm of the IDBG, also considers infrastructure as a strategic priority. According to its business plan, by 2019 it expects a 14% increase in approvals in infrastructure over the 2010-2014 average.
- 1.3 **The objective of this evaluation is to review and assess the work done by the IDBG on PPPs in infrastructure in LAC.** It also reviews the experiences of several other MDBs with PPPs to gain a comparative perspective and gather lessons that might be helpful for IDBG. The evaluation focuses on the decade 2006-2015.
- 1.4 **This evaluation is timely given recent changes within IDBG.** The 2016 merge-out of private sector operations—moving private sector operations previously in IDB to the enlarged Inter-American Investment Corporation (IIC)—and the change in strategic focus of the Multilateral Investment Fund (MIF) are creating new opportunities and challenges in terms of coordination and synergies between different parts of IDBG.

¹ It is estimated that LAC’s infrastructure needs are equal to around 5% of the region’s GDP. IDB (2016, 2015, 2014); ECLAC (2011); Kohli and Basil (2010); Fay and Yepes (2003); Calderón and Servén (2003).

² Two other IDB sector strategy papers—Climate Change Adaptation and Mitigation] and Institutions for Growth and Social Welfare—and several IDB sector frameworks also include PPPs as an area for IDB engagement.

- 1.5 **The evaluation seeks to answer questions concerning the relevance, effectiveness, efficiency, value-added, and sustainability of IDBG's infrastructure PPP activities (Box 1.1).** These activities span three types of IDBG support: support for the enabling environment, assistance in project preparation, and financing of PPP projects. Some investment operations and policy-based loans (PBLs) have sought to help countries develop a supportive enabling environment for PPPs, while technical cooperation (TC) initiatives such as the InfraFund have supported project preparation and lending operations have financed PPP investments.

Box 1.1. Evaluation questions

- Is the PPP portfolio focused on market needs?
- To what extent did selected PPPs address critical challenges in specific markets?
- Did IDBG use appropriate instruments?
- Was IDBG's work consistent and coordinated with strategy and policies in the country?
- What effect have these operations had on the PPP market?
- To what extent did they succeed in strengthening capacity and the enabling environment?
- Have they succeeded in achieving the objectives, in particular regarding access to and the quality and costs of infrastructure services?
- To what extent did project design and structure respond to issues arising during project implementation and allow for efficient project delivery?
- What has been the main value-added of IDBG?
- To what extent have selected operations succeeded in addressing key environmental and social issues?
- Have selected operations been sustainable?

- 1.6 **To address these questions OVE gathered evidence at two levels.** First, to gain a cross-cutting view of IDBG's work to date, OVE identified a portfolio of 145 PPP projects undertaken during 2006-2015 across all IDBG windows.³ Second, OVE conducted in-depth case studies in six LAC countries: Brazil, Colombia, Dominican Republic, Guyana, Peru, and Uruguay.⁴ These countries represent diverse contexts and experiences and accounted for 70% of the total IDBG portfolio during the evaluation period.

- 1.7 **As there is no single internationally-accepted definition of PPPs, OVE used the broad working definition in the PPP reference guide 2014:**⁵ *A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.* The contract design and negotiations embedded in a PPP arrangement are time-consuming processes that can differ depending on the context, the experience of the contracting authority, and the strength of the private sector consortia (Annex I).

³ OVE undertook this portfolio definition from scratch because the IDBG does not have a common definition of what is considered a PPP or a central database identifying and monitoring PPP-related work. See Annex II for a complete description of OVE's methodology.

⁴ The six case studies identified are representative of projects approved in transport and energy during 2009-2012. The selection criteria are listed in Annex II.

⁵ 2014 Public-Private Partnerships Reference Guide 2.0. World Bank, Asian Development Bank, IDB

A. Benefits and Risks of PPPs

- 1.8 PPPs can help overcome some of the limitations traditionally associated with standard public provision.** First, tight budget constraints often limit the capacity of the public sector to commit capital to long-term and risky infrastructure projects. A PPP arrangement allows the private sector to finance the construction, and operations and maintenance of the infrastructure asset and be remunerated directly via user charges, indirectly via taxation, or through a combination of both. Second, the absence of long-term contracts with clearly specified service quality standards can result in substandard work or a construction method that entails much higher operations and maintenance costs. A PPP contract is designed to account for outputs and costs over the entire life-cycle of the project, potentially allowing the private sector to reduce costs while improving service quality. Third, public delivery of public infrastructure programs is often affected by project identification and prioritization difficulties, low-quality planning, and slow permitting and procurement processes. PPP projects are meant to follow international standards in procurement, with open, transparent and competitive procedures. Finally, the risk that political and fiscal cycles will affect the investment during the operation and maintenance stage can impair the efficiency of investments, increasing costs of infrastructure and reducing service quality. While not immune to the political cycle, PPPs tend to introduce discipline given the relatively large amount of resources required and the long-term commitment involved.
- 1.9 PPP arrangements are not without risks, however, and raise concerns that need attention.** First, PPPs face fiscal management risks that need to be carefully addressed and managed. The possibility of having investments in infrastructure while avoiding the immediately visible fiscal liabilities (if PPP commitments are treated as an off-balance sheet item) make PPPs an attractive option to governments, since they can reap the political benefits of having the infrastructure in place and spread the cost to future taxpayers. In addition, PPPs involve complexities at all stages of the project cycle (preparing, procuring, financing and managing contracts) and require a wide range of skills. Some of these may be new to the public sector or difficult to attract and retain in the public sector. Inefficient or corrupt tender awards, for example, are often the seed of future problems with PPP projects. Finally, given that most PPPs involve a large amount of private finance, they face higher costs of capital than projects that are purely publicly financed. The value-for-money proposition in favor of PPPs therefore requires the private sector to achieve cost efficiencies and improved service quality over the lifetime of the project to compensate for the higher financial costs. Given the long-term nature of PPP contracts, effective contract management arrangements are required to ensure that PPPs continue to deliver value-for-money.
- 1.10 Regardless of the chosen infrastructure delivery option, whether standard public procurement or PPP, infrastructure projects face a range of risks due to their large-scale and long-term nature.** These include technical, construction, operating, financial, force majeure, regulatory/political, project default, or environmental and social risks. PPPs are not immune to these risks, and thus contract design and risk allocation are crucial for achieving the expected benefits.

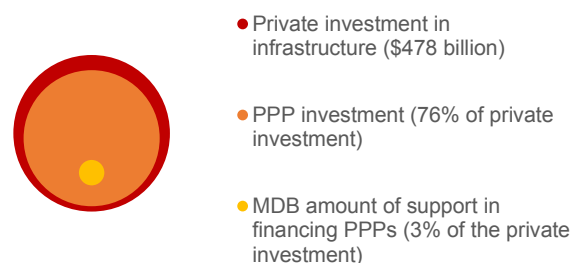
B. Infrastructure PPPs in LAC

1.11 **From 1992 to 2013, LAC dedicated 2.4% of its GDP to infrastructure, investing significantly less than some other economies.** China invested 8.5% of its GDP in infrastructure development; Japan and India invested 5% and 4.7% of their GDPs, respectively, and the European Union and the USA invested 2.6% of GDP.⁶

1.12 **According to the Private Participation in Infrastructure (PPI) Database, over the period 2006-2015 around 1,000 PPP projects were developed in LAC.⁷**

These investments accounted for 76% of total private investment in infrastructure (Figure 1.1) and 1% of the region's GDP.⁸ Other developing regions such as South Asia or Sub-Saharan Africa have invested about 1.6% and 0.8% of their respective GDPs in infrastructure PPPs in that decade. Low- and middle-income countries in developed regions such as East Asia and Pacific and Europe and Central Asia—hard-hit by the global crisis and more in need of maintenance than of new infrastructure investments—invested about 0.1% of their GDP in infrastructure PPPs.

Figure 1.1. PPPs were the predominant way of supporting private infrastructure investment in LAC over the period 2006-2015.



Source: PPI Database (2016).

1.13 **PPP investment in infrastructure has increased significantly across LAC—from US\$8 billion in 2005 to US\$39 billion in 2015, with an accumulated investment of over US\$361 billion over this period.** PPP investment was reduced for a time after the global financial crisis, but after 2010 many governments looked again to increase private investments, given the difficulties in increasing public investment in view of low commodity prices and rising fiscal deficits in the region. This development was brought about also in part by improvements in PPP readiness, with the establishment of dedicated agencies and regulations for PPPs in many LAC countries.⁹ Overall, LAC significantly improved institutional frameworks to develop PPPs.

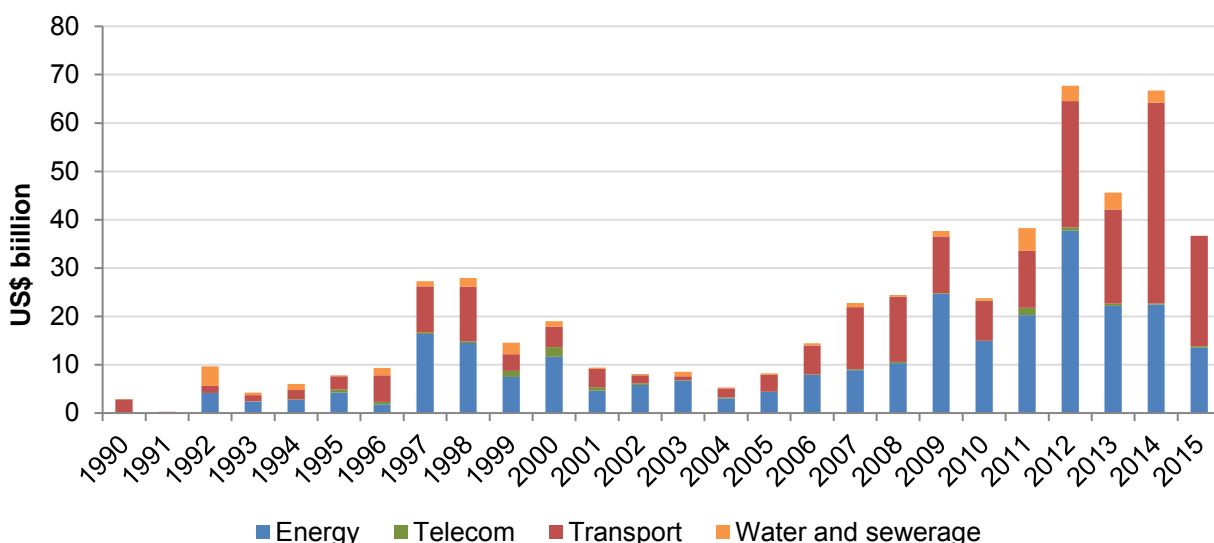
⁶ [McKinsey Global Institute \(2016\)](#). See also Annex V.

⁷ The PPI database is used throughout this document to describe the status of the PPP market in LAC. It is the most comprehensive database available for the region, though not perfect. Investment amounts in this database represent the total investment commitments entered at the beginning of a project (at contract signature or financial closure), but amounts are not consistently updated. Annex II provides further context on the methodology used for the PPI Database.

⁸ Infralata database (2016).

⁹ See Figure 1.2 and variations of PPP enabling environment (2009-2014) in Annex V.

Figure 1.2. LAC PPP Investment in infrastructure by sector (1990-2015)



Source: PPI Database (2016)

- 1.14 PPP investments have been mostly in energy and transport.** Despite significant differences among countries, PPP investment in LAC is highly concentrated in energy (over 48% of total PPP investment) and transport (over 46%, with a predominance of road investment). The share of water and sanitation (4.7%) and information and communication technology (ICT) projects (1%) among PPPs in the region is small.¹⁰
- 1.15 The PPP market in the region is highly concentrated in Brazil, followed at a significant distance by Mexico and Colombia, while Honduras leads in PPP investment relative to GDP.** Over 94% of total PPP investment in LAC during the last decade was concentrated in only five countries: Brazil (65%), Mexico (11%), Colombia (7%), Peru (6.4%), and Chile (5.3%). However, relative to the size of the economy, Honduras led the region with PPP investments of 2% of GDP, followed by Peru (1.6%), Nicaragua (1.5%), and Jamaica (1.3%). Brazil's and Mexico's PPP investment was only 1.1% and 0.4% of their respective GDPs in the last decade. In small countries, the development of a sustainable pipeline of projects can be especially challenging.
- 1.16 Other changes have also influenced, and will influence, PPP investment in the region.** Debt accounted for two-thirds of PPP investment between 2004 and 2014, but during the global financial crisis equity took on a bigger role. During the last decade, commercial banks accounted for over 50% of private investment in infrastructure in the region; developers, engineering procurement, and construction firms contributed 9%; and other main financiers of infrastructure PPPs

¹⁰ Data and definitions follow the World Bank's PPI Database (<http://ppi.worldbank.org>). The following LAC countries are covered in the database: Argentina, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, and Uruguay.

were national banks (13.7%) and MDBs (7.3%).¹¹ Going forward, Basel III regulations will limit commercial banks' capacity to finance long-term infrastructure projects. Recent studies point to institutional investors—such as pension funds, insurance companies, and investment funds—as potential financing partners in the delivery of infrastructure.¹²

- 1.17 **Many LAC countries with developed capacity for PPPs have project pipelines with long lists of potential PPPs.** Many PPP projects could reach the market in the coming years. Practically all the largest countries in the region—Argentina, Brazil, Chile, Colombia, Mexico, and Peru—have an infrastructure investment agenda in which PPPs play a crucial role.¹³ For example, Colombia developed a US\$70 billion plan to improve national infrastructure. The plan devotes close to US\$30 billion to the flagship project—the Fourth Generation (4G) road infrastructure program, a concession plan with 47 projects that is the largest road program in LAC.¹⁴ Given that the ratio of private investment to GDP in some of the largest economies in the region is still low, there is considerable scope for more projects, provided that they can be successfully managed.
- 1.18 **However, the readiness of the PPP environment varies greatly across the region,** in terms of regulations and legislations, degree of private investment in infrastructure delivery, and the development of financial markets. Although there have been improvements in some countries—especially Uruguay, Guatemala, and Mexico—during the last decade, progress has been uneven and needs are different in each economy. Infrascope (2014) does not yet rank any country in LAC as “mature,”¹⁵ but it rates five—Chile, Brazil, Peru, Mexico and Colombia— as “developed” PPP environments, nine¹⁶ as “emerging,” and five¹⁷ as “nascent.”¹⁸

¹¹ Financing sources also include investment banks (3.3% of total funds for PPPs), export credit agencies (2%), investment or infrastructure funds (2%), government agencies or public authorities (2%), pension funds (1%), and sovereign funds and insurance companies (less than 0.3%) (Serebrisky et al., 2015).

¹² Serebrisky et al. (2015). As an example, pension funds together with insurance companies have accumulated funds of about 20% of the region's GDP, but they dedicate only 1% of their portfolios to the infrastructure sector.

¹³ Examples: Argentina recently announced plans to invest over US\$26 billion in infrastructure in the next four years, with the bulk of investment coming from the private sector: <http://www.latinfinance.com/Article/3584224/Will-infrastructure-investments-revive-Argentinas-economy.html#.WDNgUtUrJpg>. The Government of Brazil announced 34 infrastructure projects (14 in energy and 11 in transport) to be shaped as concessions, with at least 20% of financing from private investors. Chile's Government plans to invest CLP18.9 trillion (US\$28 billion) under the Infrastructure Master Plan for 2014-2020, in 25 concession projects: http://www.mop.cl/Documents/Agenda_2014-2020_baja.pdf. In 2013 Mexico launched an ambitious National Infrastructure Plan for 2014-2018, to invest 7.7 billion pesos (US\$594 billion) in 743 transport and communications, energy, hydraulics, health, urban development, and housing projects; the Government is now working to create the conditions to attract private participation. Finally, by the end of 2016 Peru's Government plans to issue the first in a series of decrees aimed at accelerating infrastructure investments and boosting economic growth. According to the Finance Minister, measures will include both PPPs and purely public works projects.

¹⁴ <http://documents.worldbank.org/curated/en/570111468186858634/pdf/104848-BRI-ADD-SERIES-PUBLIC-Colombia-4GTollRoadProgram.pdf>

¹⁵ Infrascope ranks the capacity of LAC countries to carry out sustainable PPPs in infrastructure. It is produced by the Economist Intelligence Unit, with support by the Multilateral Investment Fund (MIF) and other institutions.

¹⁶ “Emerging” PPP environments: Uruguay, Guatemala, Jamaica, El Salvador, Costa Rica, Honduras, Paraguay, Trinidad and Tobago, and Panama.

¹⁷ “Nascent” PPP environments: Dominican Republic, Ecuador, Nicaragua, Argentina, and Venezuela.

¹⁸ See also “Variations in the PPP enabling environment (2009-2014),” in Annex V.

Among the most urgent challenges for the region Infrascope highlighted were deficiencies in the institutional framework and subnational adjustment.¹⁹ Financial facilities²⁰ were found to be especially strong in Chile, followed by Brazil, Mexico, Peru, and then Panama and Colombia; the rest of the region still struggles with this aspect, and there has been little improvement since 2010.

- 1.19 **An important challenge for the region is the high rate of renegotiations in LAC in the past decades, linked in part to poor project preparation.** Contracts have been renegotiated for almost 70% of PPP infrastructure contracts signed in the region in recent decades, and for 92% of water-related projects. Such renegotiations could be problematic if they lack transparency and public visibility.²¹ Risk misallocation tends to be at the heart of renegotiation processes, pointing at poor project preparation and deficient value-for-money (VfM) assessment, together with incomplete contracts or regulatory weaknesses, which considerably alter the desired project results.²²
- 1.20 **MDBs are well positioned to provide timely support to unlock more value in infrastructure projects and programs.** Regardless of how an infrastructure project is financed, if it is to be successful it should be economically, environmentally, and socially sound and able to recover its costs. It is relatively easy to underestimate the time and cost it takes to structure and design these complex long-term projects well. MDBs have the potential to help develop suitable environments to attract private investment (for example through support to reform legal and regulatory frameworks), provide independent project preparation support (such as VfM and risk transfer assessments), and help close financing gaps.

II. IDBG AND OTHER MDB SUPPORT FOR INFRASTRUCTURE PPPs IN LAC

- 2.1 **IDBG approved 145 infrastructure PPP operations for US\$5.8²³ billion during the 2006-2015 period (Annex II).** These operations used a diverse set of instruments, including investment loans (83.5% of the total amount), guarantees (7.9%), programmatic PBLs (7.8%), equity (one operation)²⁴, and TC grants. TCs represented a small amount of the portfolio (0.7%) but a larger share of the number of operations (68, or 47%).

¹⁹ Subnational adjustment refers to whether infrastructure concessions can be carried out at a regional, state, or municipal level, and to the relative success and consistency of these frameworks.

²⁰ Financial facilities: government payment risk, capital market for private infrastructure finance, marketable debt and government support, and affordability for low-income users.

²¹ Guasch et al., 2014; Engel et al., 2014.

²² Bitran et al., 2012.

²³ These internal IDBG figures are not fully comparable to the MDB figures shown later in the chapter because they include enabling environment and project preparation operations in addition to financing operations, and they include all approved operations (some of which were eventually dropped or cancelled).

²⁴ The US\$3.5 million IIC equity investment was in Andean Power Generation SAC in Peru, which invested in two run-of-the-river hydroelectric plants, with a total installed capacity of 27.4 MW, along with a 60-km transmission line for the plants. The power plants started operations in 2016.

2.2 IDBG's support focused on improving the enabling environment and on financing PPP projects; there was little support for project preparation:

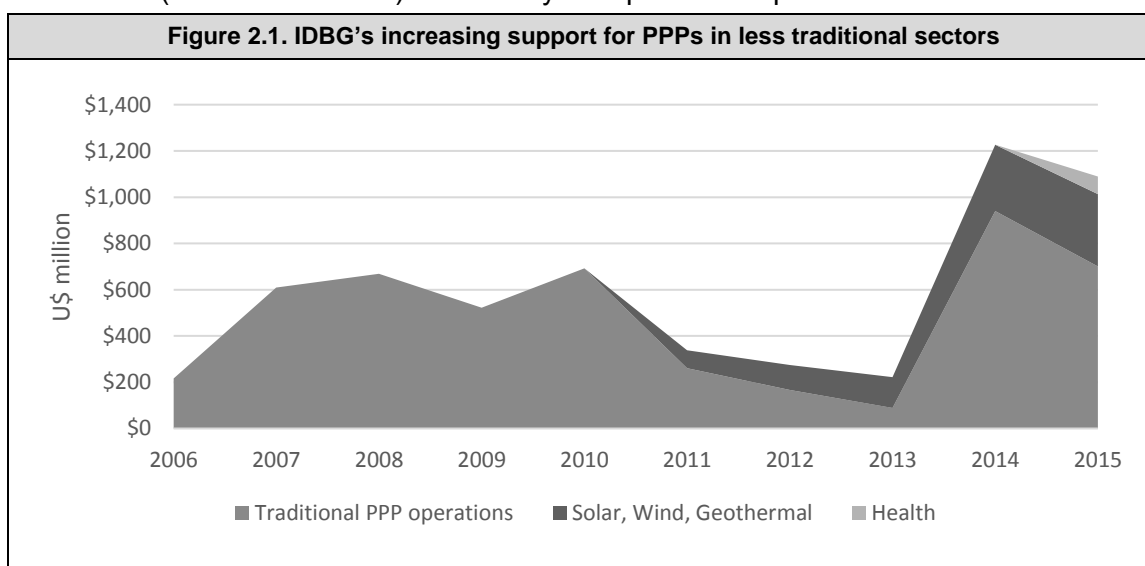
- IDBG approved 77 *enabling environment* operations for around US\$900 million. These operations provided “upstream” support, including support for policy reforms, capacity building, and institutional strengthening.
- IDBG approved 10 *project preparation* operations for US\$9.4 million. These TC operations supported initial stages of the PPP project cycle, such as the identification of a project; elaboration of feasibility, technical, and pre-investment studies (including environmental, social, and governance assessments); definition of the procurement strategy; and support for the design of PPP contracts.
- IDBG approved 58 *financing* operations for US\$4.9 billion. These operations, which account for most of the approved finance, aimed at closing financial gaps in the final phase of the project cycle.

2.3 Most resources for enabling environment were directed to sector reforms, institutional strengthening, and improvement of regulatory frameworks to encourage private participation in infrastructure. IDBG approved US\$362 million (or 40% of the total approvals for the enabling environment) for multisector operations that sought to strengthen countries' capabilities and regulatory frameworks for developing PPP projects. It approved US\$278 million (31%) to improve the enabling environment in the energy sector by supporting conditions for developing renewable energy projects and a regional transmission project, and to encourage rural electrification through PPP schemes. The remaining 29% was used to strengthen public entities and improve regulatory frameworks in the water and sanitation (13%), health (8%), and transport (8%) sectors. Most support was provided through PBLs (51% of total volume) and investment loans (46%); TCs accounted for a small amount (3%), but were the most frequently used instrument (66% in number). The Institutions for Development (IFD) and Infrastructure and Environment (INE) departments accounted for most of the total approved amounts (56% and 32%, respectively). In terms of number of operations, INE (31%), MIF (30%), and IFD (22%) provided 83% of all enabling environment operations approved during the evaluation period.

2.4 Project preparation TCs had several objectives. InfraFund is a special TC program dedicated to helping public, private, and mixed-capital entities in LAC identify, develop, and prepare bankable and sustainable infrastructure projects that have the potential to reach financial closure. IDBG used this fund to approve 6 TCs whose objectives included the constitution of a PPP development fund (3 operations) and the elaboration of key documents and structuring of the bidding process for PPP projects (3 operations).²⁵ Besides the InfraFund TCs, IDBG (through INE) also approved 4 TCs to support public entities in identifying and selecting PPP projects (2 operations), and to structure the bidding processes of PPP projects (2 operations).

²⁵ InfraFund's resources were also used for 8 enabling environment operations and 5 PPP financing operations.

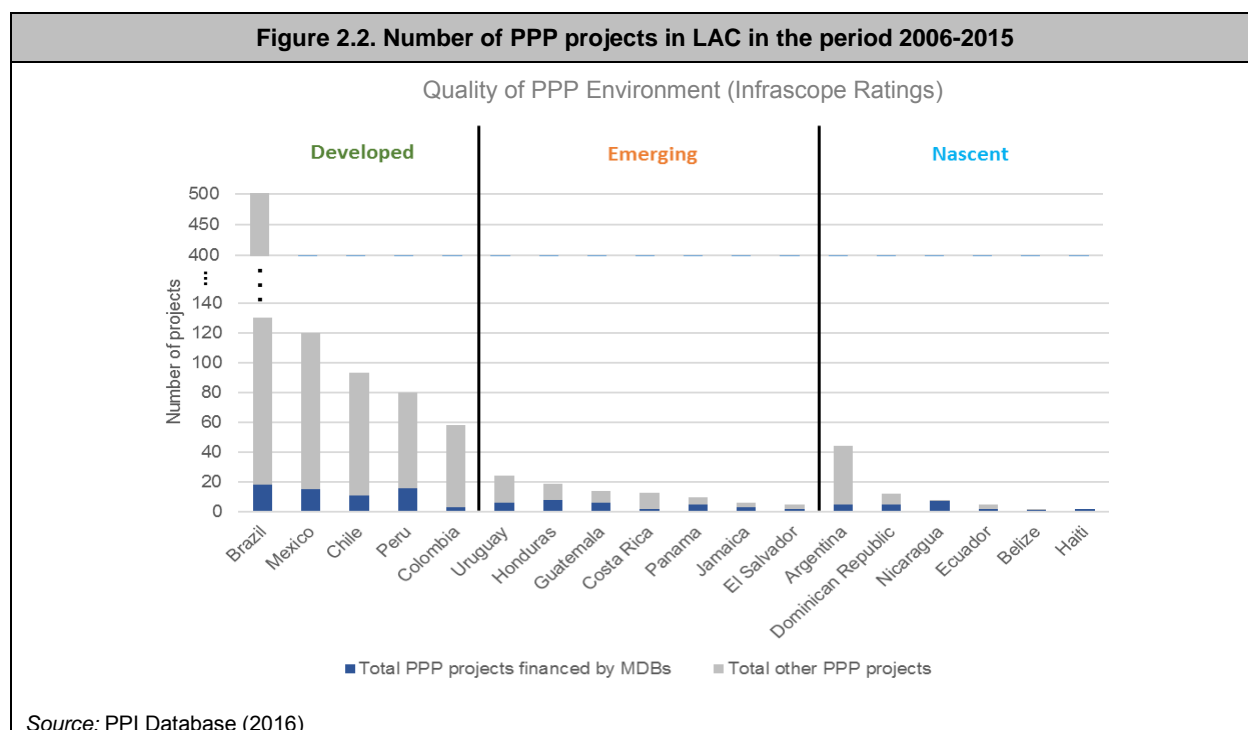
- 2.5 **The financing of specific PPP projects was concentrated in the two most important PPP sectors in the region: energy and transport.** IDBG approved loans and guarantees of US\$3.2 billion for 22 operations in the transport sector, and US\$1.7 billion for 36 operations in the energy sector. PPP projects in transport included expansion of transportation systems (55% of total in transport), the expansion and construction of roads (30%), and the expansion of airports and ports (15%). Energy sector projects included the construction of renewable energy—wind, thermal, hydro, solar, and biomass—power plants (86% of the total in energy) and the expansion of transmission networks (14%).
- 2.6 **The private sector windows of the IDBG provided most (81%) of the PPP project financing.** Prior to their recent merger, Structured and Corporate Finance department (SCF) had approved 42 PPP operations and IIC 12 (mostly small energy projects). On the public sector side, INE participated in the financing of 4 PPP projects, one (Lima Metro Line 2) financed by both private and public windows of IDBG.



Source: OVEDA.

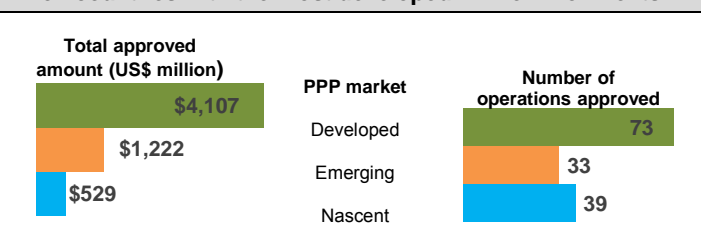
- 2.7 **IDBG's PPP activity has only recently begun to move beyond transport and energy (Figure 2.1).** Considering the overall portfolio, IDBG approved 85 PPP operations for US\$5.3 billion in energy and transport—over 90% of the amounts and 59% of the number of PPP operations. Only 3% of approved amounts have been in other sectors, including water and sanitation, health, agriculture, and telecommunications, while 6% have gone to multisector operations that included energy and transport as well as social sectors. After a decline in IDBG PPP activity between 2010 and 2013, IDBG started to move to less traditional sectors, including financing renewable energy (especially wind and solar projects since 2011) and, most recently, supporting the enabling environment for social sectors in Colombia and Peru. However, both the amounts and numbers of these operations remain small in comparison with the support IDBG continues to provide for traditional transport and energy infrastructure (particularly roads and hydroelectric power plants).
- 2.8 **Most of IDBG's support (over 80% of the total portfolio) was approved for the six countries with the most developed PPP capacity.** OVE classified the IDBG portfolio using the Infrascope 2014 ranking of countries' capacity to carry out sustainable PPPs

(Figures 2.2 and 2.3).²⁶ The five countries with *developed* PPP environments²⁷ accounted for 70% of the total amount and over 50% of the operations. Most of the amount for countries with *emerging* capacity was approved for Uruguay (12% of the total amount), the country ranked sixth. Among countries with only *nascent* PPP capacity, Dominican Republic and Jamaica accounted for the largest share (almost 10% of the total).



2.9 Most IDBG financing went to the countries that also received the most private PPP investment during the period. Three countries (Brazil, Peru, and Uruguay) accounted for 60% of IDBG's total PPP financing.²⁸ Enabling environment operations were concentrated in Mexico (21%), Colombia (18%), and Peru (13%). IDBG's limited support for project preparation was also concentrated in countries with the most developed PPP environments: Brazil

Figure 2.3. IDBG's support for infrastructure PPPs was focused on countries with the most developed PPP environments*



* Infrascope defines countries as having *developed*, *emerging*, or *nascent* capacity to carry out sustainable PPPs in infrastructure. Countries not ranked by Infrascope (Haiti, Belize, Guyana, and Suriname), and regional initiatives, were included in the *nascent* category.

Source: Internal IDBG data.

²⁶ Country PPP environments are considered **mature** when the overall score is between 80 and 100 (in the 2014 ranking none of the LAC countries was ranked in this segment), **developed** when it is between 60 and 79.9, **emerging** when it is between 30 and 59.9, and **nascent** when it is below 30.

²⁷ The countries in each of the categories are noted in paragraph 1.17 and in Figure 2.2.

²⁸ Brazil 25.4%, Peru 21.8%, and Uruguay 13.1%

(49%), Peru (19%), and Colombia (16%). In nascent PPP capacity countries, IDBG enabling environment support was considerably higher than its financing support, with almost 20% of total resources for enabling environment approved for these countries, compared with only 2% of financing approvals.

- 2.10 **Though IDBG financing was small compared to the LAC PPP market, it was the largest financier among MDBs.**²⁹ During 2006-2015, MDBs financed 117 infrastructure PPP projects with costs of US\$12.6 billion,³⁰ representing around 3.5% of total PPP investments in LAC.³¹ IDBG provided slightly over one-third of that MDB financing. Of the 140 projects in the region's PPP portfolio, IDBG participated in over 40% (57), International Finance Corporation (IFC) and Multilateral Investment Guaranty Agency (MIGA) in about 30%, and the Andean Development Bank (CAF) in 14%. Other MDBs participated in less than 10% each.³² While in absolute terms most MDB resources went to the bigger economies in the region,³³ in relative terms—compared to total PPP investment—MDBs had a bigger role in smaller countries.³⁴ Compared with other MDBs, IDBG support was relatively more focused on countries with higher PPP capacity (Figures 2.4 and 2.5). In fact, IDBG's PPP portfolio in *developed* PPP markets (Brazil, Mexico, Colombia, Peru, and Chile) represented 46% of total MDB financial support in those countries. IDBG had the biggest financing role in Uruguay and Jamaica, with 20% and 18% of total PPP financing, respectively.³⁵
- 2.11 **Other MDBs have more diversified engagement and are developing a broad and innovative range of instruments.** The World Bank (WB) has been supporting enabling environments in the region with operations for US\$3.7 billion. At the same time, IFC's advisory services and the WB have provided almost US\$83 million to 8 countries in the region for project preparation. MDBs have started to develop new wholesale instruments other than direct loans for specific

²⁹ This reflects only IDBG approvals for PPP project finance, net of droppages and cancellations. IDBG approvals for PPP operations cited in paragraph 2.2 exceed the financing because of these droppages and cancellations.

³⁰ MDB support has included 85 projects in energy (mainly electricity) and 27 in transport (mainly roads, followed by railways and ports). The support was principally through loans (68% of amount of support), but also through syndications (20.8%), guarantees (12.4%), and equity and quasi-equity (0.6%). According to the PPI database, MDBs have financed only 4 water and sanitation projects and no ICT projects in the region.

³¹ These data can differ from internal institutional data. The MDB information here comes from the PPI database for projects reaching financial closure between January 2006 and December 2015.

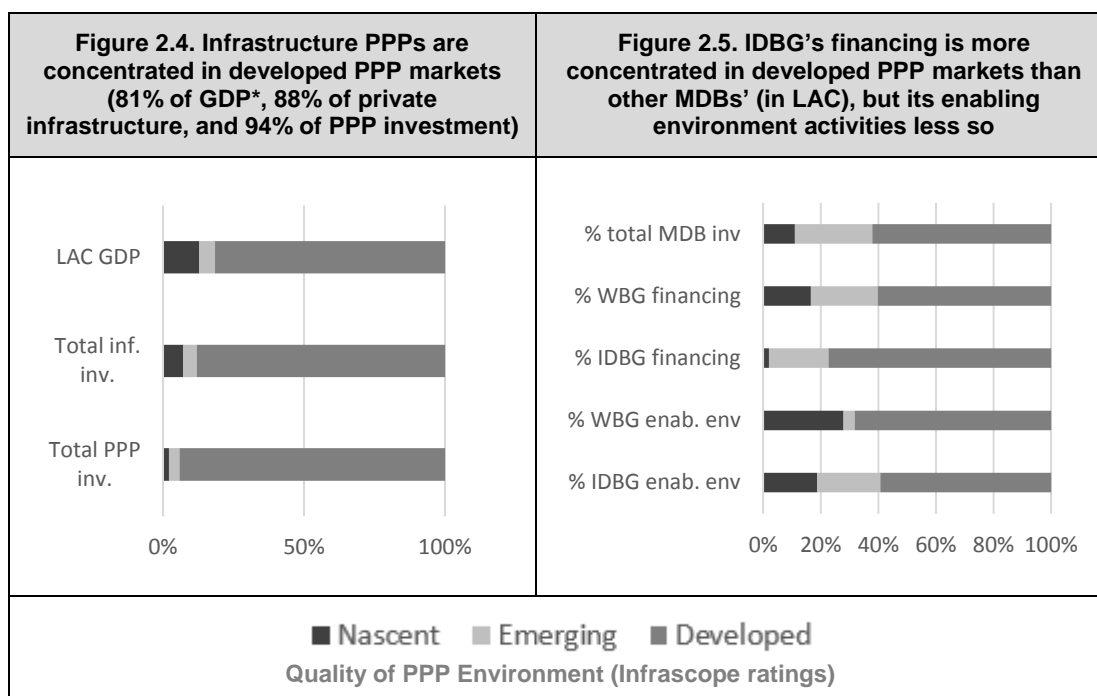
³² Central American Bank for Economic Integration 8%, European Investment Bank (EIB) 5%, North American Development Bank 2.6%, and other MDBs 3%. Based on PPI Database (2016).

³³ In absolute terms, MDBs have concentrated their efforts in Peru (19.8% of PPP projects supported by MDBs), Brazil (16.9%), Mexico (11.6%), and Chile (8.8%). Colombia represented only 4.9% of the PPP projects supported by MDBs in the region.

³⁴ These include Haiti (38.6% of total PPP investment), Panama (35.2%), Ecuador (26.7%), and Jamaica (26.4%). See table in Annex V.

³⁵ Within the Caribbean region, Jamaica has been the most active country for PPPs during the last decade. Despite the infrastructure gap, PPP activity across the Caribbean region has remained limited. From 2006 on, Jamaica has developed 8 PPP projects totaling US\$1.8 billion, out of US\$ 2.2 billion of total private investment in infrastructure in the country. Of the investments, 75% were for greenfield projects, and MDBs provided support to half of the PPP investment. Sectors covered were electricity (5 projects), ports (1 project) and roads (2 projects), with an investment of US\$420 million, US\$437 million, and US\$937 million, respectively.

PPP projects. For example, in 2016 CAF has been active in Brazil through an association with Brazil's BNP Paribas Asset Management and the creation of a R\$1 billion real (US\$315 million) fund to help finance Brazil's infrastructure concessions through a new bond portfolio.³⁶



* Average GDP 2006-2015

Source: PPI Database (2016). OVEDA.

III. FINDINGS ON IDBG'S PPP ACTIVITIES

- 3.1 **This chapter examines the extent to which IDBG infrastructure PPP activities were relevant, effective, efficient, and sustainable over the evaluation period.** The analysis of relevance is based on an analysis of the broad portfolio of IDBG activities and their objectives and how well they fit with countries' capacities to do PPPs. The analysis of effectiveness, efficiency, and sustainability is based on the five country case studies (Brazil, Dominican Republic, Guyana, Peru, and Uruguay) that cover a large portion of IDBG's mature PPP portfolio of financing operations approved between 2009 and 2012. These country cases include all highway, urban, wind, and hydro projects in the portfolio approved during that period, and thus provide a comprehensive view of project financing for the two most important sectors for IDB and the market (energy and transport), though IDBG support for other PPP projects in these countries was also considered. A sixth country case study, Colombia, focused on enabling environment operations and also provided a view of IDBG operations over an entire decade.³⁷

³⁶ <http://www.brazilgovnews.gov.br/news/2016/09/government-announces-concession-of-25-infrastructure-projects>

³⁷ See the methodology in Annex II for an explanation for the selection of cases and their representativeness compared to the portfolio.

- 3.2 **Though IDBG did not have an overarching PPP strategy, it established a diverse set of objectives regarding PPPs, first through Country Strategies (CSs) and then through the approval of individual operations.** OVE found that 19 recent CSs (73% of all CSs) mention the importance of supporting the development of PPPs. The range of objectives varied by type of intervention, with those related to improving the enabling environment³⁸ cited most frequently (in 90% of the CSs), followed by financing of PPPs through non-sovereign guaranteed NSG windows (58%) and supporting project preparation (42%).³⁹ Transport and energy were the sectors most frequently mentioned (in 63% and 42% of the CSs). These CS objectives usually responded to country needs –for example, fiscal space– and specific country demands.
- 3.3 **Though many CSs emphasized PPP support, they were not clear on the importance of country capacity or on the need for sequencing and coordination among different types of PPP support.** Objectives were identified for all 9 countries with *emerging* capacity for doing PPPs, 3 of 5 (60%) countries with *developed* capacity, and 7 of 12 (58%) countries with *nascent* capacity.⁴⁰ Only in a few cases did CSs explicitly mention that IDBG support should be contingent on ensuring sufficient PPP capacity in the country.⁴¹ Even in CSs that mentioned objectives for all types of PPP support (enabling environment, project preparation, and financing),⁴² it was not clear how those activities would be coordinated into a cohesive program.

³⁸ Includes developing legal and regulatory frameworks, promoting PPP approaches, providing support for specific institutions related to PPPs, and strengthening financial administration and public procurement systems.

³⁹ Includes supporting the development of a pipeline of viable and bankable PPP projects, designing and managing PPPs, supporting the structuring of PPPs, and attracting private investment.

⁴⁰ The only countries whose CSs did not explicitly mention PPPs are Bolivia, Chile, Ecuador, Guyana, Mexico, and Suriname.

⁴¹ For example, the Bahamas CS (GN-2731 2013-2017) explicitly states that the IDBG would pursue opportunities to finance PPP projects once the PPP framework is in place. The Haiti CS (GN-2646 2011-2015) also mentions the possibility of investing in transmission and generation through this mechanism once a stable regulatory framework allows for concessions and PPPs.

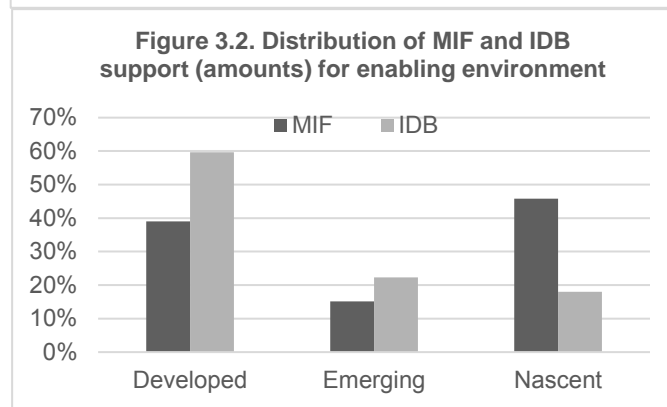
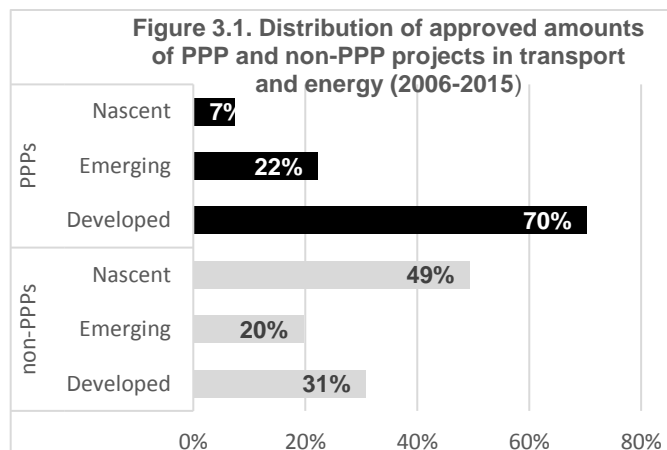
⁴² For example, in Nicaragua, Peru, Uruguay, and Paraguay.

3.4 **Actual IDBG lending has been better linked with country capacity.** While IDBG's PPP approvals have been concentrated in countries with more developed PPP capacity, its non-PPP loans for infrastructure in the transport and energy sectors have been focused on countries with lower capacity for PPPs (Figure 3.1).

A. Support for the enabling environment

3.5 **Except for MIF operations, IDBG's enabling environment work was concentrated in countries with developed PPP capacity (Figure 3.2).** IDBG did not provide substantial support to improve the enabling environment in some nascent countries where it financed or planned to finance PPP projects, such as Guyana, Belize, and Ecuador. MIF's support was more focused on countries with lower PPP capacity, yet it often acted without a comprehensive integrated IDBG strategy or synergies with the rest of the IDBG.⁴³ As MIF reduces its PPP work going forward in line with its business plan, it is unclear whether and how the rest of the IDBG will pick up the enabling environment work in the more challenging settings.

3.6 **In two of the five case study countries, Uruguay and Colombia, various IDBG windows provided substantial support to the enabling environment.**⁴⁴ These were part of a longer-term IDBG effort to help governments strengthen policy tools to stimulate private investment, which included coordinated support from different windows. In Uruguay, MIF provided support to help develop the legal and regulatory framework, build local capacity, identify a medium-term pipeline of projects (supporting the implementation of two pilots), and develop financial



Source: OVEDA.

⁴³ A similar observation was made in OVE's reference note on PPPs for the MIF evaluation in 2013, which led to the following recommendation: "Associate with comprehensive strategies that are been pursued by governments, and ideally also by the IDB. In this line, MIF program could gain relevance by being associated to comprehensive strategies that promote PPPs as an instrument to develop infrastructure and related public services."

⁴⁴ In the other three case study countries, the IDBG did not provide substantial enabling environment support during the period.

instruments, in collaboration with IDB (INE).⁴⁵ More recently, IDB approved a loan to support the institutional capacity of the recently created PPP unit, which is at the center of the PPP institutional framework.⁴⁶ IDB also approved a PBL in the financial sector that included objectives related to PPP development.⁴⁷

- 3.7 **In Colombia, as in Uruguay, IDB's sustained engagement was relevant and appreciated by the government** (Box 3.1). IDB's Transport division (TSP) approved several operations to support the enabling environment for PPPs, and specifically the National Planning Department (DNP) and the National Infrastructure Agency (ANI). More recently, in 2015, the Capital Markets and Financial Institutions division (CMF) approved a programmatic PBL for US\$500 million to support the country's financial system reform, which included a modification to the financial regulation for PPPs.⁴⁸
- 3.8 **IDBG has also responded to governments' interest in incorporating private investment in new sectors in Uruguay and Colombia.** Though regulations and institutions to implement road concessions are well established, IDBG has helped to improve the technical expertise and specific regulations to eventually create a framework for private participation in new sectors, such as social infrastructure (schools or hospitals). IDB has also approved a programmatic loan to support management modernization of the health sector in Peru, which would promote PPPs.⁴⁹

⁴⁵ The Plan to Support Public Private Partnerships (UR-M1040 - 2010), for US\$1.2 million, provided technical and economic support to the National Development Corporation (CND). The CND is responsible for promoting PPP projects and developing technical guidelines. It also provides advice on the identification, design, structuring, promotion, selection, and contracting of these projects and contributes to building the capacity of the contracting public entities.

⁴⁶ The two main objectives of the loan, Institutional Capacity Program for the Ministry of Economy and Finance (UR-L1074 - 2012), were to improve methodological guidelines for reviewing feasibility and VfM studies prepared and applied by this unit, and to reduce the time needed to formulate and contract PPPs. The two technical public entities in charge of PPPs, other than CND, are (i) the Planning and Budget Office, which is responsible for ensuring the development of each project according to the conditions and characteristics of the PPP contract model and for reviewing the economic and financial models as well as socioeconomic impact; and (ii) the PPP Project Unit within the Ministry of Economy and Finance, which is in charge of monitoring the economic and financial aspects, verifying compliance with budgetary process, assessing the associated risks, reviewing the suitability of the bids received, and managing provisional awards.

⁴⁷ Financial System Reform Support Program (UR-L1108 - 2015) for US\$250 million. Two of the agreed policy measures are related to PPPs: (i) define national objectives for PPPs, and (ii) strengthen the operations of the PPP project unit. Both were also supported through previous IDBG operations. For a second phase, the policy measures agreed are (i) approval and registration of at least two PPP contracts; and (ii) issue regulations governing the process for formalizing the private sector's role in designing and implementing PPPs.

⁴⁸ Loan CO-L1144. One of the measures in the first program was the "decree modifying the provisions on individual credit limits, investment regimes involving resources from unemployment funds, mandatory pension funds, and portfolios that underpin the technical reserves of life insurance companies, and partially modifying the definition of capital funds within the private capital fund investment regime directed at infrastructure investments as part of PPPs." The decree covering these measures was issued in April 2014 (Decree 816 of 2014).

⁴⁹ PE-L1169 (Improving Management for Universal Health Coverage Program I) approved in 2015. It is expected that among the components of the second operation will be to define contract supervision mechanisms for health care investment projects awarded through PPPs, and to strengthen Health Ministry of Peru (MINSA for its Spanish acronym) capacity to implement PPP contracts.

Box 3.1. Colombia's PPP experience and IDBG's role

Over the last 20 years Colombia has gained considerable PPP experience in infrastructure, mainly in the road transport sector, achieving mixed results and learning from experience. In January 2012, the country improved its PPP legal framework with the approval of Law 1508 designed to address the problems experienced by three previous “generations” of road concessions—project structuring, contract incentives, and payment mechanisms. The objective remains to attract private finance and enable the implementation of the “fourth generation” road program (4G) while improving the quality of the country's infrastructure services in both “productive” sectors (e.g., transport, water) and social infrastructure (e.g., health, education). Law 1508 allows PPP proposals to originate from public or private initiatives (unsolicited proposals). Up to October 2016, of 490 registered PPP proposals, over 90% were private but fewer than 2% of them had been approved. Public initiatives represent less than 10% of the total, but 54% of them have been approved.

The IDBG has supported infrastructure PPPs in Colombia during 2006-2015: six **enabling environment** operations (US\$41 million), one **project preparation** operation (US\$0.2 million), and two **project financing** operations (US\$323 million). The IDBG has regularly supported the country's National Planning Department (DNP), starting in 1996 with the approval of the first stage of the *Program to Support Private Participation and Concessions in Infrastructure* (PPCI-1) which was intended to strengthen DNP's technical and institutional capabilities for developing PPP projects. Its objectives were to (i) **consolidate and strengthen the regulatory framework and technical and institutional capacity of policy, regulatory, and oversight agencies in several sectors (transport, energy, water, and social infrastructure such as health and education); and (ii) support the technical, economic, financial, and/or legal development of processes for private participation.** The PPCI-1 was followed by a PPCI-2 in 2004 and a PPCI-3 in 2008, all three with tangible results. In 2014 the IDBG approved a 5-year US\$25 million loan (*Program to Support Private Participation*) to strengthen the technical and regulatory mechanisms that promote PPPs across sectors. The IDBG has financed only two PPP projects in Colombia—a US\$165 million loan to modernize and expand **El Dorado International Airport** in Bogotá, which was approved in 2013 and pre-paid in May 2015; and a US\$158 million loan, approved in 2015, to co-finance the **Perimetral Oriental de Bogotá**, a 154m highway upgrade, part of the first wave of PPPs awarded by the government under the 4G program.

In sum, IDB's enabling environment support constituted a relevant, long-term, and intensive effort to strengthen the PPP environment. IDBG provided little support for project preparation. IDBG approved only two project financing operations, and only the last operation in 2015 supported the focus area of IDB's enabling environment operations – the road program.

- 3.9 **At the subnational level IDBG has not been as relevant in providing significant support for the enabling environment.** Addressing the lack of capacity at the subnational level for planning and executing PPPs has repeatedly been mentioned as a major need in Colombia, Peru, and Brazil. Because this type of lending operation requires sovereign guarantees, IDBG support for the enabling environment at this level has mainly been through TCs. For example, in 2004 MIF approved a TC to support PPPs in the state of Minas Gerais (Brazil) for US\$680,000. This TC provided many lessons to the state, MIF, and IDB, but it did not result in a continuous and comprehensive effort on the part of IDB to support PPPs in the longer term.⁵⁰ MIF also had experience in Mexico by approving several TCs in 2007 to support the program to boost PPPs in Mexican states (PIAPPEM, for its Spanish acronym). In that case, the lack of a central coordination unit for the

⁵⁰

The TC was extended to accomplish some of the targets related to pilot projects. An intermediate evaluation of the TC found that the project underestimated the difficulties of developing PPP projects in the state and the time required for assimilating the new model. A priori it was very difficult to estimate a timeframe for awarding a project, as several public institutions were involved in the decision, and many events could delay execution. The TC was able to achieve the creation of a PPP project office, a PPP unit, and the “PPP Network.” The institutions started to have the problem of retaining and increasing human capital to sustain the development of the PPP framework. (Adapted from Avaliação intermediária de progresso da cooperação técnica (CT) do programa PPP-MG - 2007).

process forced IDB's country office to take responsibility for implementing the program, which affected procurement and project coordination.⁵¹

- 3.10 **Because enabling environment projects have been managed by different windows, coordination among different parts of the IDBG has not always been assured.** In one case two different IDBG windows hired the same consultant without realizing it. Since the consultant was working in both cases on activities to improve enabling environments, coordination between windows could have produced some efficiencies. As another example, in several cases IDBG tried to engage in project financing (and the project was dropped or cancelled) where the enabling environment was not ready. A coordinated approach that included other areas of IDBG could have saved the Bank and the country time and resources. Without a focal point to coordinate efforts and prioritize actions in different contexts by all windows, these types of inefficiencies are difficult to avoid.
- 3.11 **Countries often face similar coordination problems.** Although a federal PPP law exists in Brazil, most PPPs are implemented under states' own PPP legislation. There is no nationwide framework for planning and integrating PPP investment projects in infrastructure among the municipal, state, and federal levels. This lack of coordination and standardization of national PPP procedures can be a constraint, especially for projects crossing administrative boundaries. A similar uncoordinated approach by different public entities is characteristic of Colombia, and it used to happen in Peru before the 2015 Law 1224 established the Ministry of Finance as the leading agency.
- 3.12 **OVE analyzed the effectiveness of two closed operations in Uruguay and Colombia. In those two cases IDBG's enabling environment operations achieved their main objectives.**
- i. In **Uruguay**, the plan to support PPPs (UR-M1040) achieved most of the target indicators regarding local capacity building and the identification of a medium-term pipeline of projects (with potential projects identified, a program of PPPs defined for medium-term implementation, and two pilot projects awarded).⁵² Since 2010, the overall Infrascopes score for Uruguay has increased from 42.8 to 52.9, making it the most-improved country in the period. The only component of the operation that had poor results was the one related to the development of financial instruments (such as a project structuring fund, financing fund, and guarantee fund). Today, pension funds are the only alternative to finance PPPs in local currency,⁵³ given the difficulty local banks have in engaging in long-term project finance in that currency.⁵⁴ This also reduces the speed at which PPP projects can be implemented in the country.

⁵¹ See OVE's reference note on PPPs for the MIF evaluation (2013).

⁵² One of them had problems at financial closure, which created some delays.

⁵³ And there are not many mechanisms to reduce the construction risks embedded in this type of financing (BROU has provided some guarantees for the prison project, but it was slow to structure and difficult to negotiate). Given its purpose, the social security funds (AFAPs) are not interested in this type of risk, making this financing very difficult to implement.

⁵⁴ The size of banks in the country and the depth of the financial system limit the willingness of banks to finance this type of projects.

- ii. In **Colombia**, PPCI-3 (CO-L1065), with the support of two other TCs,⁵⁵ advanced the objective of consolidating and strengthening processes of the regulatory framework and the institutional capacity of public entities involved in PPPs. It advanced the DNP's structuring of PPP projects in transportation, energy, communications, water and sanitation, health, education, and comprehensive care in early childhood. It identified the needs of other institutions to facilitate private investment (such as the Infrastructure and Sustainable Energy Office), and helped elaborate sector evaluations to understand the impacts of previous IDB operations (PPCI-2). In general, targets were met, with several studies and regulatory support provided for each of the sectors. It was more difficult to meet all the targets regarding structuring projects (results were less than expected in transport, energy, and water projects). However, the main outcome was the legal and regulatory reforms enacted through the new law 1508 of 2012 and the support to reform regulations and structure PPPs in non-traditional sectors. Since 2009, Infrascope scores for Colombia for regulatory and institutional framework have registered one of the best performances in the region.⁵⁶ However, there are still issues with a preponderance of unsolicited proposals (pointing to weak project preparation capacity, but little work by IDBG to support project preparation). Also, almost no project financing was directly related to supporting the enabling environment work (except for a single project in 2015), pointing to very limited synergies between different parts of the IDBG.

3.13 Many parties, in addition to IDBG, contributed to these successful outcomes.

In Uruguay, the Government made a strategic decision to develop PPPs as an alternative source of finance and launched several initiatives—of which PPPs were one—to increase investments in the country. Stability after the 2002 crisis and a strong sustained growth helped the Government implement investment plans and leverage the reform. Colombia's Government also put in place an ambitious infrastructure plan and showed commitment to reform regulations and institutions and to improve governance to make it work (after a few previous efforts to develop PPPs, with several generations of concessions in roads). While IDBG clearly contributed to the success, it was not the only actor supporting the process: CAF and the WBG (through IFC) were also involved in supporting the Colombian Government.

B. Support for project preparation

3.14 The IDBG portfolio of project preparation activities was relatively small and focused only on more advanced economies, and thus was not in line with the objectives mentioned in CSs. Some problems identified in CSs include the lack of clear project pipelines and countries' limited capacity for screening, structuring, appraising, and designing contracts. Eight CSs mentioned the need to support proper PPP project preparation—especially pipelines and structuring in the

⁵⁵ In 2007, CO-T1066 was used to finance the visit of employees from the DNP, the Ministry of Finance, and the INCO (predecessor of ANI) to Chile, to transfer technical knowledge on Chile's experience in implementing PPPs. In 2008, the second TC (CO-T1139) helped with the preparation of pre-feasibility and feasibility studies in the transport and energy sectors.

⁵⁶ The regulatory framework score more than doubled between 2009 and 2014 (from 31.3 to 68.8)—the second-best performance in the region after Guatemala. The institutional framework score increased by 50% (from 33.3 to 50) in the same period.

transport, energy, water, tourism, and social sectors.⁵⁷ That these needs were identified in countries with very different PPP capacity indicates that this issue was probably common to all PPP contexts, irrespective of their level of PPP development.⁵⁸

- 3.15 **IDBG provided project preparation support only to Brazil, Colombia, and Peru and only in a few initiatives, though demand was high.** IDB's InfraFund participated with US\$2 million in the Brazilian Private Sector Participation Facility (PSP), created in 2007 to improve project preparation in the country (the InfraFund contribution represents about 20% of the facility).⁵⁹ IFC managed the initiative, and IDB's role was limited to contributing resources to the fund. This support was very important but represented only a small share of the country's project preparation needs. In Colombia, IDBG supported the Ministry of Finance in the identification and selection of PPP projects through a US\$0.5 million TC, and provided US\$1 million for the development of an infrastructure pre-investment fund. This was a joint effort between MIF and IDB (with a staff person from INE managing the TC). But these initiatives were few, not part of a bigger IDBG effort, and thus were not able to meet the huge demand in this area.
- 3.16 **The limited set of instruments made it difficult for IDBG to address some of the challenges of PPP project preparation.** As the CSs recognized, support for project preparation is one of the areas of significant client demand. In some cases, IDBG engaged with clients to help resolve problems that arose at the initial stages of the project cycle (during feasibility studies or design of PPP contracts), for example with the support of IDBG's private sector experts (then in IDB's SCF department). However, these engagements were not through specific dedicated IDBG products with a clear mandate, but through ad hoc support; also, they were provided by a part of IDBG that could later finance the PPP, which raises issues of potential conflicts of interest. Unlike other MDBs, IDBG does not have, for example, a specific instrument for providing advisory services, or a dedicated facility for preparing PPPs. Also, given the complex characteristics of PPPs, the preparation phase usually requires a lot of time compared to political cycles, and thus MDBs need to be able to respond quickly. This is especially true at the subnational level, where authorities change frequently and institutions are weaker.
- 3.17 **InfraFund activities in the region did not increase private sector participation in infrastructure to the extent that was originally expected.** Only a few of the InfraFund TCs were intended to leverage private sector participation in

⁵⁷ Barbados, Belize, Brazil, Costa Rica, Nicaragua, Paraguay, Peru, and Uruguay.

⁵⁸ Even in countries with good institutions and expertise for developing pipelines in some sectors, there are sometimes problems generating a good pipeline in different (new) sectors. The need to increase support mechanisms and resource capacity (human and institutional) for project preparation to enlarge the scale of possible investments, raise the quality of projects, manage risks, increase the speed of delivery, and attract the right private partners is internationally recognized.

⁵⁹ The fund is a coordinated effort among the IFC, the *Banco Nacional de Desenvolvimento Econômico e Social* (BNDES, through its subsidiary BNDESPAR), and the IDB. The purpose is to perform project selection and project execution tasks such as structuring projects and bidding them out. The fund is coordinated through the PPP Unit of the Ministry of Planning, Budget and Management, the agency in charge of structuring PPP projects at the federal level. The program was the first operation of IDB's Infrastructure Fund. There have been two phases to finance the facility: in 2007, BNDES contributed US\$1.9 million, and IFC and IDB contributed US\$1 million each; in the second phase, concluded in 2012, BNDES contributed US\$3.9 million, IFC US\$2.9 million, and IDB US\$1 million.

infrastructure. The most important was the participation in the PSP in Brazil already mentioned. Originally, the PSP supported projects in traditional infrastructure sectors and in social infrastructure (such as schools and other health care facilities). Five PPP projects supported by this facility reached financial closure by 2014, and three of them were more focused on new social infrastructure. The PSP helped to prepare a PPP on primary care units, education, and health, the first of several PPPs in health in Brazil. However, the support is still minor in terms of infrastructure needs in Brazil; on average, only one project per year was completed. Additionally, the IDB's participation in the facility was limited to a financial contribution, which reduced both IDB's involvement and its ability to learn from the experience of preparing social infrastructure PPPs in Brazil.⁶⁰

- 3.18 **In Colombia, the two TCs aimed at supporting project preparation delivered their expected outputs.** The TC to the Ministry of Finance helped prepare the ministry for the new needs envisioned for the PPP program. It ensured the inclusion of the contingent liability analysis in the fiscal principles, promoted the new PPP law (Law 1508 of 2012), and provided methodologies to assess and monitor risks in PPP contracts, a guide on good practices on PPPs, and training to employees. The other TC approved for project preparation, to support the development of an infrastructure pre-investment fund and build capacity in railroad PPP projects, also accomplished its main outputs. The main achievements were the implementation of a pre-investment fund, the strengthening of the technical team responsible for railroad projects, the definition of the requirements for presenting unsolicited proposals to the ANI, support for ANI in evaluating unsolicited proposals in the pre-feasibility phase, and the development of strategic guidelines for railroad transport. However, the projects for developing railroad infrastructure have not been presented for the bidding process.⁶¹
- 3.19 **The existence of robust and independent institutions with solid corporate governance has been important for achieving these results.** One example is the key new role played by the ANI in the execution and management of PPP projects (in the context of the 4G program). The perceived independence and corporate governance shown by the ANI reassures local and foreign investors about the fairness and transparency of the bidding and contract award processes.⁶² Other institutions, such as the National Development Finance company (FDN) created in 2011, are also providing support in the preparation phase of PPPs, sometimes managing the structuring. FDN also plays an important

⁶⁰ The facility is managed by a trustee, IFC Advisory Services. IFC, IDB, and BNDES participate on the Oversight committee with equal voting rights in selecting projects. Projects to be financed by the fund are executed by a Lead Project Execution Advisor (LPEA). IFC Advisory Services, IDB, or a third party may be hired by the fund as LPEA according to a policy determined by the board of donors, although IFC has been the LPEA for all PSP projects. For the first tranche, it was agreed that IFC was the sole institutional trustee of the Fund. After that and once US\$3.9 million had been fully spent, IDB could join as institutional co-trustee, although it never did.

⁶¹ The intermodal transportation master plan (known as PMTI), which set long-term objectives guided by a modular and flexible roadmap, established a possible pipeline of projects for different transport infrastructure, including railways. The PMTI1 included the construction of five railways to add 1,769 km to the country's primary rail network. Although railroads now have a higher share compared with some other modes of cargo transport, they did not achieve the expected results.

⁶² The establishment of the "Registro Único de Asociaciones Público Privadas," managed by the ANI and DNP, also provides transparency regarding the PPP pipeline, with both public and private initiative projects.

role in financing projects (and providing guarantees), especially for 4G projects. The corporate governance of the FDN is reinforced by the participation of the CAF and the IFC as shareholders.

- 3.20 **Ad hoc project preparation support was provided mostly at the financing phase (when concessions had already been granted), with IDBG assuming the extra costs for improving project designs and/or extra risks when it was difficult to change conditions.** By providing advice on an ad hoc basis without fees, SCF could not recover many of the costs. For example, in two projects, IDBG requested amendments in the contracts after they were awarded in order to strengthen the contractual structure and risk profile and to improve bankability. The provisions were amended, but the process was delayed, so that the contracts lapsed and renegotiation was necessary. During renegotiation for one of the projects, initial conditions were changed (regarding termination payment and liquidity structure conditions), and then IDB cancelled the entire loan. In the other project, the main sponsor sold its participation to another company, necessitating a modification of the guarantee provided to IDBG. This, together with other modifications to the proposed technology by the new sponsor, changed the nature of the project presented to IDBG's board. The new conditions would not have met minimum credit rating requirements, so IDB also cancelled this loan. Where IDBG enters late into complex projects, it can be very challenging to positively affect project outcomes (Box 3.2).

Box 3.2. The importance of a good preparation phase: Lima Metro line 2

The Metro Line 2 project is so large and complex that it has no precedents in Peru. The IDBG and other MDBs^a were formally incorporated into the project when it had already been awarded to the private sector; thus, they had no participation during the design phase. The project is in the early stage of implementation but has already experienced a delay of over a year, and execution problems that are likely to cause cost overruns, even though the initial costs were already high compared with international benchmarks. Cost overruns can be an indicator of inefficient practices or corrupt behavior.^b

At this initial stage of implementation four particular concerns have been identified:

- **The effect of the late entry of the IDBG and other MDBs into a highly complex project from an environmental and social perspective.** The IDBG did not participate in the project design and entered the project when it had already been awarded to the only bidder. The incorporation of effective social and environmental safeguards will be a major challenge during implementation.
- **The lack of analysis of the value proposition (VfM) done by the IDBG independently from government assumptions and results,** given the late entry already mentioned.
- **Challenges in coordination among different institutions in charge of the transport system.** This urban transport project is being implemented by the national government, which could create some duplication with city authorities. In addition, several authorities are in charge of planning and managing the different means of public transportation offered by the city.
- **The dual role of the IDBG in financing both the public and private parties in the PPP project and potential conflicts of interest.** Although IDBG's participation from the public and private side might add value as it serves as an honest broker between the different parties, there is uncertainty about how IDBG will handle potential conflicts of interest.

^a Such as CAF and the WB.

^b Peru's Comptroller has identified several irregularities, in the award and design of the contract, see [Irregularities identified in Line 2](#). Institutional Bulletin of Peru's Comptroller, August 2016.

C. Support for financing

- 3.21 **Given the relative size of the PPP markets in individual countries, IDBG PPP financing has been less relevant in more advanced countries than in emerging and nascent countries.** As was mentioned in the previous chapter, IDBG approved substantial amounts in countries that have more access to external financing for PPPs,⁶³ including Chile, Brazil, Peru, and Colombia, but IDBG financing was a larger share of total PPP financing in countries with lower capacities and small PPP markets, including Uruguay, Jamaica, Dominican Republic, and Belize. IDB approved very few operations in other countries with low capacity. On average, IDBG financing of PPP projects (without considering cancelled operations) represented 1% of total PPP investment in countries with developed capacities, 6.7% in countries with emerging capacities, and 1.2% in countries with nascent capacities.⁶⁴
- 3.22 **Regarding mobilization of additional resources, IDBG added financing through B-loans mostly in countries with higher financial capacity, especially Brazil.** The additional financing through B-loans for PPP projects in the portfolio was US\$1.6 billion (a mobilization ratio of 32% of direct IDBG financing). This mobilization rate was relatively higher than that of all MDBs in the region (25%). However, the average mobilization rate was driven mainly by the capacity for financial mobilization in countries with developed PPP markets (with an average rate for those countries of 41%, compared with only 14% for emerging PPP markets and no B-loans in nascent PPP markets). Brazil accounted for 74% of all B-loans in the portfolio, with a mobilization rate of almost 1 dollar of B-loan per dollar of IDBG A-loan. Given the importance of local currency financing for PPPs, the development of local capital markets is often key for mobilizing resources – and a potential area of IDBG support.
- 3.23 **IDBG objectives in its PPP financing operations in the case study countries were in line with country programs and addressed critical issues.** OVE identified 22 objectives from the sample of 10 projects in the portfolio of PPPs financed by IDBG from 2009 to 2012.⁶⁵ Of the projects analyzed in the sample, 8 were greenfield and 2 were brownfield projects. The main objectives of road and urban transport infrastructure projects were to increase system capacities and quality, and to improve services for users. In energy, all projects (wind and hydro) in the sample aimed to mitigate impacts on climate change by reducing fossil fuel dependency and increasing renewable capacity, while keeping costs under control. These were important issues in the contexts of these projects, identified in CSs and government plans. In three countries (Uruguay, Dominican Republic, and Brazil) the PPP projects were part of infrastructure programs (a bigger group of

⁶³ The Infrascopes indicator for Financial Facilities considers government payment risk, the availability of a capital market for private infrastructure finance, the existence of a marketable debt with reasonable conditions, and government support for low-income users and infrastructure affordability.

⁶⁴ IDBG financing was more than 10% of PPP investments in Uruguay and Jamaica; it was between 2% and 6% in Dominican Republic, Belize, Peru, Costa Rica, Panamá, and Chile; and it was less than 2% in Colombia, Mexico, Guatemala, Nicaragua, Brazil, Argentina, Honduras, Haiti, and El Salvador.

⁶⁵ There were 13 different objectives in the transport and 9 in the energy sector (see Annex VI, Table F, for details).

similar projects and/or part of a new model to deliver infrastructure that was being tested). The other two cases were stand-alone projects.

3.24 Half of the projects in the case study sample were in settings that lacked the minimum conditions needed to successfully finance PPPs.

- i. In one project the country had very limited PPP experience. Several previous attempts to develop projects had not come to fruition due to the fragile environment and private investors' lack of interest. Private participation had started in the sector with privatizations during the 1990s, but the process was reversed and assets returned to public control. The project represented the largest initiative in the country after many years of inactivity—but it never went ahead.
- ii. In four other projects, the country had no specific PPP legislation; PPPs were implemented under a general contracting and procurement law. PPPs were also not identified as a priority by the government, and both the government and the population lacked general commitment to private sector participation in infrastructure projects. Not surprisingly, the four projects also did not achieve their expected outcomes. Three were cancelled, and one was very costly for the country while providing fewer services than expected.

3.25 The very high proportion of cancellations of PPP operations in nascent markets illustrates the difficulty of financing successful projects in countries without supportive enabling environments. Two-thirds of IDBG's operations and 86% of the amounts approved in these countries were cancelled, compared to 4% and 11% of approved amounts cancelled in developed and emerging countries, respectively

3.26 In the energy sector, projects in countries with higher PPP capacity achieved a higher rate of success in meeting desired objectives. IDBG became involved with all the projects in the sample after concession contracts and power purchase agreements had already been signed. Only one of the projects achieved its objectives, and another one was on track to achieve them [⁶⁶]. In the first case IDBG engaged with the public entity (the off-taker) in a negotiation to improve the conditions required for financing this type of project, and the adjustments in the contracts allowed financial closure and the start of the operations. Other projects in the energy sector encountered problems in achieving their objectives. Three were cancelled before financial closure. For one, the sponsor ran into financial problems and had to abandon the project. IDB had structured that operation as a corporate loan, financing several energy projects of the sponsor in different countries (reducing IDB exposure to project risks and country and regulatory risk, and reducing the financial costs to the sponsor). But once the sponsor ran into financial problems at the corporate level, it was impossible to isolate this PPP project from the rest of the sponsor's operations. In the two other energy projects that were cancelled, IDB tried to assist the concessionaire in renegotiating contracts before financial closure, looking to obtain a tariff structure that could

⁶⁶ By June 2016, the project was still in construction, but 99% completed. The cost overruns were at the time only 3.2% of total cost. Both projects would reduce the share of electricity capacity from fossil fuels and the carbon footprint. One of them was also successful in improving the transfer of technology and know-how, hedging against oil price volatility, and reducing exposure of the electricity sector to lower hydropower production.

make the project bankable, but it was not successful. The last project that did not come to fruition was a very risky project in a country with very low capacity for PPPs. In this case IDB involvement ended when the main sponsor abandoned the project.

- 3.27 **Results were also mixed in the transport sector, with two projects achieving their main objectives and the other two having poor results.** The two that were completed and delivered the expected outcomes were also in a more developed environment for PPPs. The completion of both projects improved time savings and increased transport system capacity, safety, and service quality. One of them achieved additional objectives related to improved traffic conditions and economic activities in the areas surrounding the infrastructure that was built, and reduced vehicle emission levels and noise.⁶⁷
- 3.28 **The two transport cases with poor results were in the Dominican Republic, a country with a weak enabling environment for PPPs (Box 3.3).** One project reached financial closure and the infrastructure was constructed, improving time savings and increasing system capacity, but changes in the concession model from the original plans affected the capacity of the infrastructure to deliver some outcomes, especially those related to increased use of the asset and increased daily movement of users. The second project was terminated by the government in an agreement with the concessionaire after being awarded, because of the perceived high costs the concession would have imposed on users and government. The IDB loan was cancelled before disbursement.
- 3.29 **For financing operations, IDBG did not routinely review or conduct a VfM analysis in its early decision-making process to help determine whether a PPP is the best alternative.** Such an analysis should usually be carried out by the government and address not only financial but also social, environmental, and economic factors, as well as the likely efficiency of project implementation. Sometimes the lack of a VfM analysis resulted from governments including MDBs only in the financing phase of projects. In such cases, VfM calculations supposedly were already done by government, but IDBG did not review them. In one case [, the government approached IDBG to support a project without a VfM. An unbalanced distribution of risks ultimately led to IDBG's (and the sponsor's) decision not to go forward, but this could have been addressed earlier.
- 3.30 **Requirements for environmental impact assessments often do not correspond to IDBG's quality standards.** If IDB or IIC is involved at a later stage in the project cycle requiring additional measures to address environmental and social (E&S) risk, this can cause additional costs for the concessionaire and delays in project implementation. Among the most sensitive issues causing delays in infrastructure PPPs is resettlement of the population affected by the project. The practice of obtaining environmental (pre-) licensing for project implementation, which differs from country to country in the region, can also imply additional costs and project delays.

⁶⁷

For summary of achieved objectives by category, see figure G in Annex VI.

Box 3.3. The Dominican Republic's PPP experience and IDBG's role

The Dominican Republic has a weak enabling environment for PPPs in infrastructure. In terms of overall PPP-readiness, the country is considered *nascent*, ranking 15th out of 19 economies in LAC assessed in the MIF's Infrascopes (2014), with no improvement over the last years. The country falls below the LAC average on all Infrascopes dimensions, and between 2009 and 2014 experienced a deterioration in the institutional framework and investment climate dimensions. The absence of a specific regulatory and institutional framework has been one of the main impediments for further development of PPPs in the country. The Dominican Republic has no specific PPP legislation, and PPPs are executed under a general contracting and procurement law, with projects done on ad-hoc basis without a standardized framework. Any public institution can formulate PPPs, but because they must be approved by Congress, the process is lengthy. Project contracts have the status of a law, and changes are difficult. There is no central PPP unit, and depending on the sector different entities are involved in formulating, negotiating, and supervising PPPs. Currently, the government is working on a new PPP bill proposal with the technical support of the WB.

Despite the lack of a regulatory and institutional framework, the Dominican Republic has been the most active country in the Caribbean in terms of PPP investments. During the 1994-2015 period, PPP investments in the country amounted to US\$3,355 million in 21 projects. The electricity (53%) and road (31%) sectors have been the main drivers of PPP investments in the country. Greenfield projects have dominated PPP investments (16 projects, US\$2.111 million), especially in the electricity sector.

In the last 10 years, the IDBG supported infrastructure PPPs in the Dominican Republic mainly through the financing of PPP projects for US\$253 million between 2009 and 2012 (including two toll roads and two renewable energy projects). Of those four projects only one toll road (Boulevard Turístico del Atlántico - BTA) got implemented, while the other three were cancelled. In one of those cases, IDBG cancelled its loan with the concessionaire of the Viadom Toll Road after the project was terminated and before first disbursement. The concession contract for this project foresaw the payment of shadow tolls by the government to cover costs not recovered through tariffs.

In the BTA case, the lack of a proper analysis in early stages of the project led to pursuing incoherent objectives at the country level. IDBG financed the BTA on the basis of several assumptions that did not materialize during implementation. Changes in key design aspects of the project, overoptimistic projections for its utilization, and the application of expensive tariffs (which reduced demand even more) triggered huge costs to the public sector that were not expected in the beginning of the project. In this case, according to OVEs Country Program Evaluation 2009-2013, demand projections used to determine financial structure and the minimum revenue guarantee (MRG) were too optimistic, and contrasted with the Bank's own Transport Division (INE/TSP) projections, that were more conservative. IDBG's original risk analysis of the project focused only on the financial performance of the private borrower, and did not adequately consider the possible fiscal consequences of the proposed model for the country—even though IDB's Country Strategy cited the specific objective of maintaining fiscal stability during the period. Since the beginning of operation of the toll road in 2012, the MRG mechanism has been triggered, determining payments by the government of around US\$125 million just until 2015.

On improving the enabling environment, IDBG's participation was limited to a recent Programmatic Policy-Based Loan (PBL) operation approved in 2014 (DR-L1072), that was not implemented. The loan included, among other provisions, the establishment of a law regulating PPPs in infrastructure following international practices. However, this PBL was truncated in part because of the difficulties implementing the law, which was not approved by Congress. IDBG did not participate in project preparation activities.

In sum, the Dominican Republic case illustrates the difficulties of developing PPP projects in a country with weak enabling environment for PPPs. Additionally, it also shows the importance of a rigorous analysis at the beginning of a project, the potential need to support project preparation in this kind of environment, and the need to avoid pursuing incoherent IDBG objectives. Sequencing of operations is also relevant. Minimum standards for the enabling environment need to be achieved before IDBG can successfully finance PPPs. As it was, IDBG's efforts to improve the enabling environment came late and were not implemented.

- 3.31 **Some decisions on how projects were structured (definition of responsibilities at different phases of the projects) created additional costs and delays during project implementation.** For example, the separation between the construction phase done by a public entity and the operations and maintenance phase done by a concessionaire has led to handover delays and additional costs due to environmental, social, health, and safety issues. In one project for which IDBG financed the operations and maintenance concession, a significant delay in the handover was caused by a major accident in the construction phase done by a construction company carrying out the public works part. The concessionaire had already assumed expensive capital costs at the time to keep the project on schedule, but as construction was delayed, the public entity was required to compensate the concessionaire.
- 3.32 **Prepayments of loans can signal that IDB financing was sometimes used as a bridge loan.** In one case, IDBG provided one loan and two TCs⁶⁸ to a concessionaire for developing a project. The loan was repaid when the project was 95% built; the concessionaire explained that it had received better financing conditions from a consortium of local and international commercial banks. In another case the concessionaire repaid only one year after the loan approval, mainly because it considered that the IDBG loan was too expensive in the long run given that it was in foreign currency and needed an expensive hedge against currency risk. This issue, along with low levels of local currency revenues due to low tariffs, pushed the concessionaire to look for local financing (which was not long-term). While such projects may still feature some IDBG additionality (e.g., by helping to attract other financiers), unless projects are specifically structured for this event, IDBG is not sufficiently compensated for the use of its resources.

D. Value-added and sustainability

- 3.33 **As noted above, one way that IDBG added value was by being a stable presence in supporting the enabling environments in Uruguay and Colombia.** IDBG was flexible and adaptable and worked in new areas with high potential, and its long-term relationship helped maintain and improve skills as relevant institutions were being established. Clients also praised IDBG's institutional support in knowledge exchange, often provided by MIF in collaboration with IDB.
- 3.34 **Providing a recognized “seal of approval” early in project preparation is another way for IDBG to potentially add value to PPP projects**—for example, by enhancing public awareness about the benefits of a proposed model of intervention and community engagement (which can reinforce political commitment for PPPs); by providing clear rules for transparency and disclosure in specific projects (which are vital to tackle corruption); by applying international E&S standards; or by evaluating the merits of unsolicited proposals⁶⁹ or structuring

⁶⁸ The TCs were approved before the loan, to be used on the due diligence, traffic assessment, and engineering designs for the project. One TC was fully cancelled, and the other was not fully disbursed.

⁶⁹ Such proposals usually occur when gaps in government capacity add to the demand for the scarce resources and skills that are available in the public sector. They can slow down good project preparation, as in Colombia and Peru, or weaken the capacity of governments to establish infrastructure priorities, as in Brazil. There is potential for supporting this area of analysis at the country level.

model projects that help attract interest and mobilize investors. In Colombia, Uruguay, and Peru, IDB has been working on supporting institutions that are structuring projects in non-traditional social sectors (e.g., social infrastructure, schools, health)—a new trend in countries with more developed regulatory and institutional frameworks. While this is only an incipient trend and there are not yet concrete results in terms of completed projects, there is a demand for MDB support in the form of good technical and independent expertise at the sector level. The MDBs' seal of approval has also been applied when testing a new model for financing renewable energy projects in countries that have no previous experience but good potential,⁷⁰ and in complex, high-profile projects for which the country has no precedent.

- 3.35 **The inclusion of E&S safeguard standards that are often higher than those of national laws is another area that provides additional value.** If these standards are implemented successfully, they can have a demonstration effect for similar projects in the country. Applying these higher standards has led to changes in how national environmental protection agencies require risk assessments and mitigation for other similar projects. For example, because of IDBG's involvement in a wind farm project, the sponsor engaged in more in-depth studies related to the migratory flight patterns of birds and bats—assessments that were not common practice and were not required by the country's national environmental laws. After these detailed studies were conducted over the course of a full year, confirming no damage for critical (or endangered) species, the national environmental agency started requiring such studies for similar projects as part of their environmental assessment process. IDBG's Environmental, Social, and Governance department provided advice on this matter to key national stakeholders.
- 3.36 **Value-added can increase with IDBG's timely participation in the first operation of an investment program in the context of a good enabling environment.** IDBG participated in financing one of the first projects in an ambitious infrastructure program in a new sector, wind energy. With that participation, IDBG provided confidence and tested the financial market for the project, also benefitting subsequent projects. During the due diligence phase, IDBG led the dialogue with the public off-taker—a dialogue that included other interested lenders and the developers—to address concerns related to the bankability of the contract.⁷¹ These concerns had prevented financial institutions from supporting projects, thus jeopardizing the success of the entire program, and their resolution was expected to be applicable to other projects of the program, which IDBG did not finance. The specific context and IDBG's timely participation increased the chances that the impacts of the operation would spread to other operations.
- 3.37 **In another project, IDBG's timely involvement was pivotal for the successful financial closing of a project.** IDBG talked to the local banks, which adjusted their expectations regarding the interest rates to charge. This is part of the

⁷⁰ For example, in Uruguay's wind energy sector, or in solar and geothermal projects.

⁷¹ Allowing for dispute resolution under arbitration, the incorporation of a clear definition of material events leading to contract termination by the developer, the improvement of definitions of compensation mechanisms for early termination caused by the off-taker, addition of lenders' rights recognition, and lenders' cure period.

additionality of the IDBG, which can serve as an honest broker between the government and the private sector. According to the borrower, at that time financial institutions' limited knowledge of project finance in the country heightened the perceived risk of these operations, and the interest rate charged made projects unfeasible. After assessing the project, the IDBG could provide a more competitive interest rate. Subsequently, other banks also financed the project.

3.38 In two other projects, the IDBG showed consistent financial additionality by offering financing at the right time when a crisis had constrained financing.

IDBG financing for one of the first projects in an infrastructure program was important when local financial markets did not have enough liquidity. The concessionaire approached IDBG in search of financing after the project had been awarded. The loan approved included cofinancing from the Japan Bank for International Cooperation and was structured to attract a guaranteed sub-debt from local commercial banks. IDBG's support to this project was key in the evolution of this important infrastructure system. Another project, the first under the country's PPP Law, was affected by the 2008 global financial crisis, and IDB's role in structuring the PPP and mobilizing resources was crucial. IDB not only provided a loan itself but also mobilized financing from B-lenders. Because of the crisis, two B-lenders did not go forward, but IDBG was able to quickly replace the missing funds by mobilizing others.

3.39 With regard to sustainability, improving disclosure practices in PPP projects is key to increasing transparency, mitigating corruption risk, and raising public awareness about the benefits of PPP projects (Box 3.4).

There is already a well-established literature about the benefits of and best practices in disclosure for PPPs,⁷² and recent revelations in connection with Brazil's "Lava Jato" scandal have reminded people across LAC of the corruption risk.⁷³ Disclosing information about PPPs, from both the public and the private sides, can be beneficial for the performance and outcome of PPPs. Especially in countries with frequent use of unsolicited proposals, standardized disclosure practices can mitigate the risk of corruption and poor VfM analysis. Information about the performance of PPPs can also lead the population to greater acceptance of and support for PPPs, while the opposite can lead to delays and difficulties in

Box 3.4. The window of transparency: an innovative and proactive disclosure practice

IDBG provided COALIANZA, the PPP commission in Honduras, with a TC for institutional strengthening (HO-T1179), including a strong component on innovative disclosure practice. A communication strategy to familiarize the population, private companies, and civil society with PPPs was implemented, including a virtual platform, "la ventana de transparencia." As a result of this collaboration, the activity was presented as a best practice case in a Public-Private Infrastructure Advisory Facility (PPIAF) publication.^a The innovative approach involved presenting high-level information—including key benefits and opinions by politicians about the PPP projects—in the form of video clips. Recordings of key meetings about the projects are also available.

^a Disclosure in Public-Private Partnerships: Good Practice Cases, WBG, PPIAF 2015.

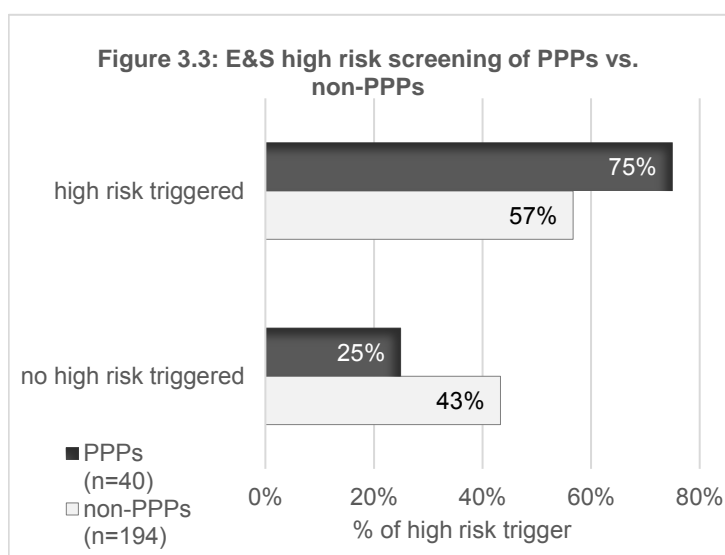
⁷² Disclosure in Public-Private Partnerships: Jurisdictional Studies, WBG, PPIAF 2015.

⁷³ For example, Odebrecht – one of the largest construction companies working across LAC – and an affiliated company reached a settlement to pay US\$3.5 billion in penalties for having paid bribes of almost US\$800 million, including in 10 LAC countries (Brazil, Argentina, Colombia, Dominican Republic, Ecuador, Guatemala, Mexico, Panama, Peru and Venezuela). See New York Times, "[Secret Unit Helped Brazilian Company Bribe Government Officials](#)" - December 21, 2016.

implementation. Greater transparency can also benefit the private sector by reducing the risk of renegotiations.

3.40 **Although long-term local currency financing is essential for PPP sustainability, in many LAC countries capital markets are concentrated, small, and not very deep.** New instruments and regulations to attract more players are not yet fully developed. In a few cases institutional investors have participated or dedicated funds have been issued in local currency, and other MDBs have been more active in this area than IDBG.⁷⁴ But in general, there are not many alternatives to reduce exchange rate risks, which are now borne by the public (e.g., by having power purchase agreements in US dollars or tied to them, or through government guarantees against exchange rate risk) or the private party (e.g., for roads whose user tolls are paid in local currency). IDB has some experience in Brazil and Mexico with financing in local currency, but it has been difficult to expand to other countries. In its latest (2017-2019) business plan, IIC envisages building its local currency financing capabilities.⁷⁵

3.41 **PPP projects sometimes generate problems of managing E&S risks, which can be high.** IDB's Environment and Safeguards Compliance Policy requires project preparation to "consider potential negative environmental impacts whether direct, indirect, regional or cumulative in nature, including environmentally related social and cultural impacts, of the operation and of its associated facilities if relevant." When IDB finances a private company, it has little leverage to influence the management and mitigation of key E&S risks that are under the responsibility of the public administration. Thus a PPP project structure brings along the problem that E&S risks—especially for associated facilities and right-of-way—are not under the direct influence of IDBG because no formal incentives or penalty mechanisms are in place. In fact, project teams are more likely to screen PPP projects as high risk than similar non-PPP projects (Figure 3.3). The same is true of E&S risk classifications assigned



⁷⁴ In some countries, there are initiatives to include local financing for infrastructure projects. In Uruguay, local social security funds (AFAPs) have financed the first project under the PPP law (a prison), taking part of the construction risk. Additionally, a fund is being formed with CAF participation and AFAPs capital. In Colombia, CAF also created a debt fund in local currency and participated with IFC in the FDN, which provides guarantees to infrastructure projects.

⁷⁵ 2017-2019 Business Plan, 2017 Administrative and Capital Budget Proposal, and 2017 Funding Strategy. From Transition to Consolidation. CII/GA-77, November 11, 2016.

by E&S safeguard specialists: 30% of PPPs are categorized as high risk, compared with 13% in the non-PPP portfolio.

- 3.42 **In some projects, high corporate commitment combined with the scrutiny of IDBG on E&S issues has resulted not only in effective mitigation of E&S risk but also in benefits improving local communities' socioeconomic conditions and livelihoods.** A key factor for excellent E&S performance is good engagement of the local community and key stakeholders, with the aim of improving livelihoods (Box 3.5). Applying IDBG's E&S

Box 3.5. Hydropower creating socioeconomic benefits for local communities

One of IDBG's hydropower projects was assessed in 2015 by the independent Hydropower Sustainability Assessment Protocol. This assessment concluded that "the requirements of the international financiers, who required a number of changes including the consolidated Environmental, Social, Health and Safety Management Plan and ongoing quarterly independent monitoring, have contributed to improved performance." The assessment identified several proven best practices on resettlement, project benefits, environmental management, public health communication, and consultations. The assessment report states: "Importantly, there were no gaps regarding Stakeholder Support, and the project maintains excellent relations with project-affected communities, national and local authorities, and other stakeholders."

safeguard standards has also sometimes led to changes in how the risk assessment and mitigation measures required by national environmental protection agencies. For the general portfolio, while PPPs were ex-ante classified as having higher risks, the safeguards performance ratings of PPP and non-PPP projects during implementation did not show significant differences.

- 3.43 **It is difficult to manage E&S risks during the financing phase of PPP projects if they have not been identified and addressed in the design and structuring stage.** In some cases, not being involved on the public sector side has reduced IDBG's ability to influence and control projects' E&S risks when some sensitive E&S issues were under the control of the government (Box 3.6). IDBG has sometimes tried to influence results through its financial engagement with the private sector, but not always successfully. There are also possible conflicts regarding who is responsible for addressing E&S issues at this stage, the public or the private sector.
- 3.44 **Other factors have also affected the sustainability of projects.** A conducive business environment—in particular, government commitment, regulatory certainty, transparency, and rule of law (beyond a PPP law or specific PPP institutions)—is essential for private sector engagement in PPPs. In several cases without an appropriate business environment, projects were cancelled or objectives were not achieved. The scale of the country or the region sometimes also reduced the potential for a sustainable PPP pipeline [. A regional approach (as through the Caribbean PPP support facility, or pooling resources) can provide an alternative to traditional enabling environment support at the country level.

Box 3.6. Sometimes E&S risks are not totally under IDBG's or its client's control

IDBG financed a concessionaire in the construction of a toll road. The expropriation for the construction site was the government's responsibility. Although construction had already been finished and although the toll road has been in operations for many years, landowners have not been compensated for their loss because of uncertainties regarding official land title registration and public budget constraints. The concessionaire can only appeal to government to settle the dispute.

Similarly, IDBG financed the construction and operation of a wind farm. The construction of the transmission line that connects the power plant with the national grid was the responsibility of the state-owned electricity company. Landowners have brought claims for appropriate compensation for depreciation of land value. The concessionaire offered to pay for these claims, but it is the state-owned company that is leading the negotiations with the landowners.

Finally, IDBG intended to finance a hydroelectric power project, but the project was not approved because its main sponsor withdrew. However, an access road to the construction site was built, passing through a critical natural habitat. Illegal artisanal gold mining increased around the access road, endangering endemic species and affecting indigenous people. After the government took the access roads out of the sponsor's project scope, IDBG's capacity to limit the adverse impacts was constrained, since IDBG's contractual relationship was with the concessionaire, not the government. To influence the government and mitigate the risks IDBG agreed on an Access Road Control Framework with the government in 2010. This agreement prohibits the use of the road for mining and forestry commercial activities. However, the framework has not been enforced, and an increase in mining activities has already been observed.

IV. INSTITUTIONAL ARRANGEMENTS IN IDB AND OTHER MDBs

- 4.1 **In line with the enhanced focus on sustainable infrastructure and private sector involvement, over the last few years practically all MDBs have redesigned their approach towards PPPs, some of them (e.g., ADB, EBRD, and WBG) drawing on evaluations of their experience with infrastructure PPPs.** The change in approach includes new institutional arrangements, product offerings, and focused interventions to better support this growing business area. New PPP strategies also identify ways to improve knowledge management and to increase collaboration within each institution among departments involved in PPP activities. This chapter presents the main trends and lessons that emerge from PPP developments in the region and from MDBs' and IDBG's own experience.

A. Strategic direction

- 4.2 **Several IDBG strategy documents mention the importance of PPPs, but there is no clear overarching PPP strategy for the IDBG.** The 2013 IDB Infrastructure Strategy calls on the IDBG to adopt a new vision for clients' infrastructure sectors. This strategy's main goal is to provide "quality infrastructure services for sustainable and inclusive growth," and one of its four priority areas is "boosting private participation in PPPs." But it does not provide a plan or guidelines on how to do that, leaving it to individual IDB and IIC departments to support governments and private and public institutions as they see fit—without necessarily coordinating to achieve synergies. Similarly, for private sector operations, collaboration between IIC and MIF has been ad hoc rather than systematic. MIF has recently been coordinating a working group on PPPs, but without the full support of all IDBG management. Given that MIF is now phasing out its involvement with PPPs, it is not entirely clear which part of IDBG will take over its PPP knowledge management role.

- 4.3 **As noted in the previous chapter, country strategies have not provided clear strategic direction to IDBG's PPP activities.** IDB and IIC have thus tended to respond to specific demands from governments or private sector clients, but without a comprehensive approach. Feedback from senior staff suggests that IDBG's responses to country client queries—for example, on whether a PPP was appropriate in a given situation—were highly dependent on who in IDBG was asked, potentially resulting in substantially different advice. This decentralized, fragmented, and uncoordinated approach seems to have reduced IDBG's ability to optimize business engagement opportunities; for example, in 2008 IDB worked with IFC and BNDES to establish the Brazilian PPP Development Fund but did not take advantage of this operation to deepen its engagement in the country's PPP market. Similarly, IDB has had a long history of using grants and loans to support the enabling environment for PPPs in Colombia but little involvement until recently with project preparation and project financing, despite clear needs in these areas. The reverse is also true: IDBG did not engage in enabling environment reforms in several countries with weak PPP environments, yet supported or tried to support private sector infrastructure projects that either never took off or produced suboptimal results.
- 4.4 **The WBG has made a concerted effort in recent years to strengthen its strategic focus and coordination around PPPs.** Its 2013 Group strategy⁷⁶ focuses in particular on “partnerships,” including strengthening and expanding its partnerships with the private sector. Its 2014 reorganization established PPPs as a “cross-cutting solution area.” In the same year, an evaluation of the WBG experience supporting PPPs⁷⁷ recommended that IFC's investments be more focused on countries with weaker enabling environments—a recommendation that was subsequently incorporated into the IFC strategy.⁷⁸ The WBG also supports several PPP knowledge management tools and advisory facilities in collaboration with other development partners, in some cases with strong support by the IDBG.⁷⁹
- 4.5 **The European Bank for Reconstruction and Development (EBRD) has developed a systematic approach to PPPs as part of its transition mandate in infrastructure.** EBRD's traditional focus has been on transport and municipal and environmental infrastructure (MEI) PPP investments, but this has expanded recently to include social infrastructure (e.g., hospitals) in response to strong demand from some of its new client countries (e.g., Turkey).⁸⁰ EBRD sector and country strategies continue to identify PPP as an option to finance infrastructure projects and achieve transition impact by improving procurement practices,

⁷⁶ [A Stronger, Connected, Solutions World Bank Group: An Overview of the World Bank Group Strategy](#) (2013).

⁷⁷ Independent Evaluation Group (IEG): [World Bank Group Support to Public-Private Partnerships: Lessons from Experience in Client Countries, FY02–12](#) (2014).

⁷⁸ [IFC Roadmap FY15-17](#) (2014), with focus on PPPs in IDA countries, Africa, South Asia, and Middle East/North Africa, as well as in middle-income countries.

⁷⁹ Examples of such tools and facilities are the Private Participation in Infrastructure (PPI) Database; the PPP Knowledge Lab; and the Public-Private Infrastructure Advisory Facility (PPIAF).

⁸⁰ A 2014 evaluation of EBRD's objectives and activities supporting private sector participation in MEI (including PPPs) concluded that the strategic attention to such participation had declined during 2001–2012, as reflected in several MEI sector strategies. See EBRD, “Private Sector Participation in Municipal and Environmental Infrastructure Projects: Review and Evaluation” (2014) (<http://www.ebrd.com/evaluation-overview/special-studies-by-sector.html>).

promoting private sector participation, and creating positive demonstration effects.⁸¹ EBRD maps countries and sectors within countries according to their relative PPP development capacity, and determines its PPP operational involvement on the basis of that assessment. For example, public sector projects may be pursued only in countries with weak PPP enabling environments, focusing transition impact efforts on the commercialization of state-owned enterprises instead. In better-developed markets the focus is exclusively on private operations, including PPPs. EBRD's PPP attention has traditionally been on financing investment projects, but in 2015—partly because of the significant demand for PPP support from its client countries—EBRD set up an infrastructure project preparation facility (IPPF) to help with project preparation. EBRD used €40 million (about US\$42 million) of its own capital to fund a sustainable infrastructure window and a PPP window, each designating a pre-qualified set of four groups of consultants with technical, legal, economic, and financial expertise related to PPP projects and transactions.⁸²

- 4.6 **The European Investment Bank Group (EIBG) does not have an explicit PPP strategy, though it continues to be a major financier of European PPP projects.**⁸³ EIBG is now focused on the implementation of the *Investment Plan for Europe*, which aims at relaunching investment and restoring European Union (EU) competitiveness to enhance growth and create jobs. The plan is expected to trigger €315 billion (about US\$330 billion) in investment in three years. A key component of the plan is the *European Fund for Strategic Investments*,⁸⁴ an initiative launched jointly by the EIBG and the European Commission (housed at EIB) to help overcome the investment gap in the EU by mobilizing private financing for strategic investments, including through PPPs. The *European Investment Advisory Hub* (EIAH), another component of the Investment Plan for Europe, aims at enhancing the environment for investment by addressing financial and nonfinancial obstacles. EIAH consists of three complementary components: (i) a single point of entry to a wide range of advisory and technical assistance programs and initiatives for public and private beneficiaries, provided by high-level experts; (ii) a cooperation platform to leverage, exchange, and disseminate expertise among the EIAH partner institutions; and (iii) an instrument to assess and address new needs by reinforcing or extending existing advisory services or creating new ones as demand arises.⁸⁵ The EIBG also houses the services of the European PPP Expertise Centre (EPEC), an initiative involving the EIB, the European Commission, and EU Member States and Candidate Countries, to help strengthen the capacity of its public sector members to enter into PPP transactions.

⁸¹ See EBRD Transport Sector Strategy (2013) (<http://www.ebrd.com/downloads/sector/transport/transport-strategy.pdf>) and EBRD Municipal and Environmental Infrastructure Sector Strategy (2012) (<http://www.ebrd.com/downloads/sector/mei/mei.pdf>).

⁸² See [EBRD Press Release on the IPPF](#), Nov. 19, 2014. The IPPF is a €40 million facility, initially funded exclusively out of EBRD's own resources.

⁸³ In the period 1990-2015, EIB cofinanced 215 infrastructure PPP projects, 145 of them (67%) in the transport sector and 47 (22%) in the health and education sector (see http://www.eib.org/epec/resources/publications/ppp_financed_by_EIB_1990_2015).

⁸⁴ See <http://www.eib.org/efsi/>.

⁸⁵ See EIAH summary here: <http://www.eib.org/eiah/index.htm>.

- 4.7 **The Asian Development Bank’s (ADB) “Strategy 2020,” developed in 2008, emphasizes support for PPPs, beginning with middle-income countries and then expanding to all developing member countries.**⁸⁶ An evaluation of its experience with infrastructure PPPs⁸⁷ found that there was still significant room for improvement, in particular by (i) better considering key impediments, e.g. considering PPPs in conjunction with sector policy reforms; (ii) strengthening country assessments by defining sector road maps that identify opportunities for private sector engagement; (iii) systematically identifying the potential for PPPs in ADB’s public sector support; and (iv) increasing partnerships with public entities that have potential for PPP operations. In response, ADB put in place an operational plan⁸⁸ to significantly scale up PPP operations in the 2012-2020 period, focusing on four pillars: (i) advocacy and capacity development, (ii) the enabling environment, (iii) project development, and (iv) project financing. In 2014 ADB established a separate PPP office,⁸⁹ providing transaction advisory services with the objectives of expanding private sector development, strengthening ADB’s role as project developer, and improving project planning and preparation. Within that office, ADB also put in place a large multi-donor trust fund to increase the level and quality of infrastructure in Asia.

B. Organization and skills

- 4.8 **IDBG staff working on PPPs are dispersed across the institution (Figure 4.1).** For the PPP activities included in OVE’s portfolio, 26 IDBG employees in 12 units (including IIC and MIF) were involved in specific activities that required core knowledge and know-how on PPPs. Most participated in enabling environment activities, with only five involved in financing. Another 35 employees in 14 units were involved in operations to some extent and probably developed skills in the process. IDBG’s skills base has been hurt by the recent departure of eight senior employees with core institutional knowledge and PPP know-how, many following the private sector merge-out.

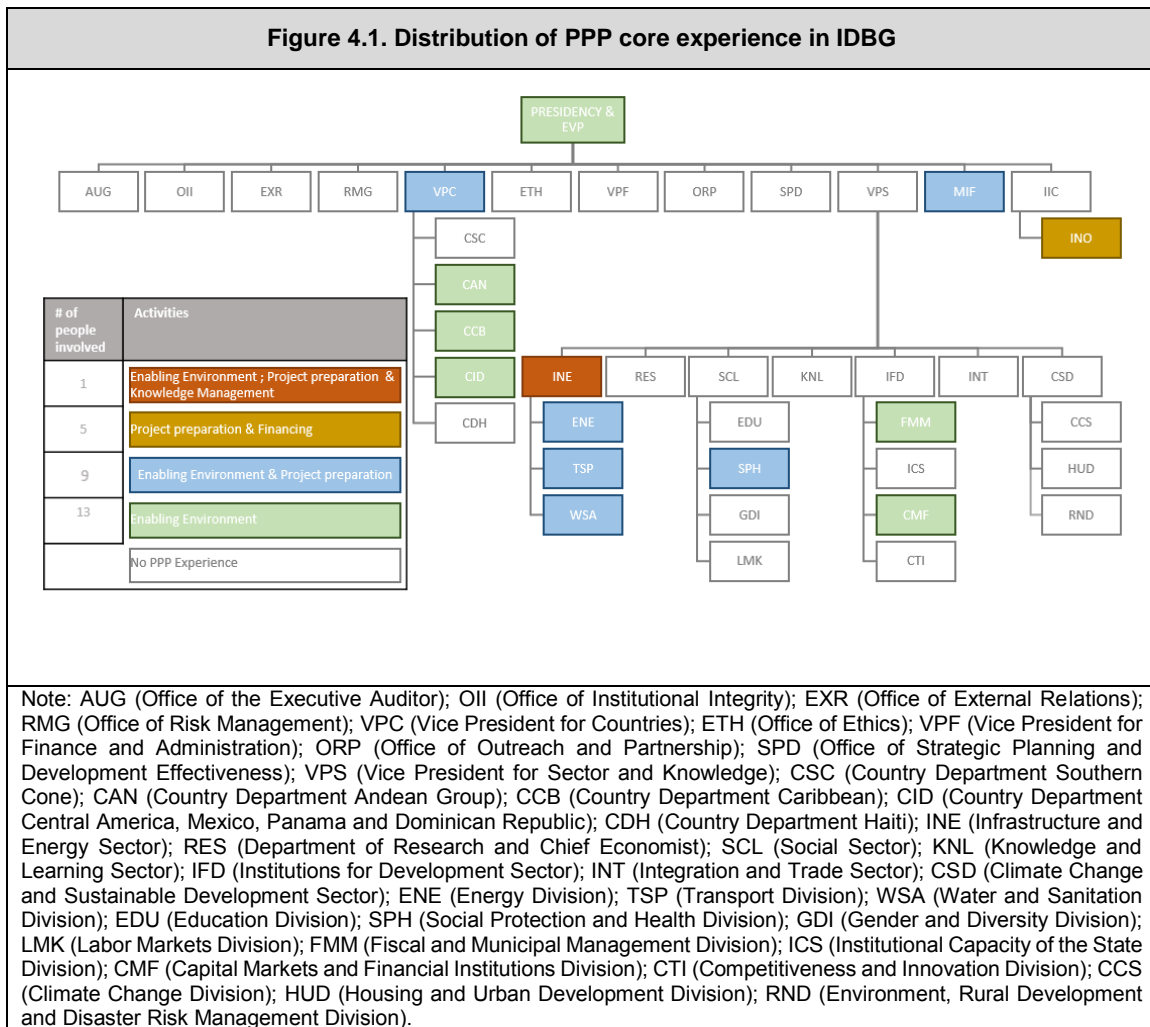
⁸⁶ [ADB: Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank 2008-2020 \(2008\).](#)

⁸⁷ [Special Evaluation Study on ADB Assistance for Public-Private Partnerships in Infrastructure Development – Potential for More Success \(2009\).](#)

⁸⁸ [ADB: Public-Private Partnership Operational Plan 2012–2020 \(2012\).](#)

⁸⁹ [ADB: Office of Public Private Partnership. Information Brochure \(2016\).](#)

Figure 4.1. Distribution of PPP core experience in IDBG



Source: OVE.

- 4.9 IDBG's PPP initiatives to date have been done on a case-by-case basis, motivated more by sector incentives than on how best to improve infrastructure through PPPs.** The origination of projects is decentralized, with different windows receiving requests and the country representative coordinating the efforts. The lack of a focal point means there is no formal mechanism to establish strategy, document and share experience, and promote consistency in IDBG's approach.⁹⁰ There has been little coordination between public and private windows. Public windows have had little incentive to explore whether a PPP might be a better solution than a public sector operation. Private windows have had incentives to originate their own operations, often uncoordinated with other parts of IDBG.
- 4.10 Yet doing PPPs well usually requires a range of skills not generally available in one unit.** For example, when dealing with bankability issues in an NSG

⁹⁰ There is an informal group established by MIF and VPS for knowledge-sharing, but without formal standing its role is limited.

operation, support from a public-sector specialist for negotiations with the country's public granting authority was essential to success. In Colombia, IDBG's enabling environment support often originated in the infrastructure department but required technical expertise and support from social specialists.

- 4.11 **A more holistic and integrated approach at the country level can also improve development effectiveness.** Providing support only on the enabling environment (as has been IDBG's tendency in Colombia until 2015) or only on project financing can lead to suboptimal results at the country level, given that a strong enabling environment, skillful project preparation, and adequate financing are all critical to long-term success. There are also considerable challenges with PPPs in the social sectors (e.g., education, health) where experiences in infrastructure could be useful—adapting legal and regulatory frameworks to the specifics of those sectors, strengthening institutional frameworks at the subnational level, setting guidelines to facilitate the structuring of PPP projects, and improving access to finance. Broadening the range and depth of IDBG support would require clearer lines of PPP responsibilities and more effective internal coordination.
- 4.12 **Other MDBs' organizational arrangements supporting PPPs have evolved, and they have all created (or consolidated) focal points to manage upstream and downstream PPP activities and improve internal coordination.** These various organizational approaches reflect the different starting points and perceived needs and comparative advantages across MDBs. In the ADB, a new focal point, the Office of Public-Private Partnerships, has been created to provide PPP transaction advisory services, coordinate PPP-related activities, and manage the newly created Asia-Pacific Project Preparation Facility (AP3F).⁹¹ EPEC at EIB represents a different type of focal point, concentrating almost exclusively on upstream work, enabling environment, and knowledge-sharing activities intended to benefit primarily the EU Member States with less-developed PPP markets and thus less institutional capacity.
- 4.13 **At the WBG, a major institutional restructuring complemented IFC's long-prevailing PPP advisory and PPP financing activities with a WBG-wide cross-cutting PPP practice focused on knowledge generation and knowledge sharing.** The organization is moving toward a division of labor in which the World Bank carries out upstream work while IFC concentrates on project preparation (advisory) and financing activities. These tasks are potentially complementary at the aggregate level, but it is too early to assess whether such coordination and complementarity is working in practice. A key advantage of the WBG's organization is the opportunity to address cross-cutting issues on the enabling environment by those working upstream; a disadvantage is the lack of client interaction, which is carried out primarily by IFC staff working downstream.
- 4.14 **In contrast, at EBRD a single department, the infrastructure business group, leads and manages all PPP project origination across the client region, with the help of country resident offices.** Coordination between a country and

⁹¹ Like EBRD's IPPF, the scope of ADB's AP3F includes the provision of transaction advice for public and private infrastructure projects; see <https://www.adb.org/sites/default/files/publication/183639/ap3f-flyer.pdf>.

headquarters is addressed by the presence of regional coordinators of the infrastructure group in key countries (e.g., Russia, Turkey, Kazakhstan).⁹² Country resident offices may lead and participate in upstream policy dialogue and manage the execution of PPP projects, but all PPP key approvals are centralized at headquarters. PPP operations contribute to EBRD's performance scorecard,⁹³ but contribute to the mobilization ratio only if EBRD gets a fee from attracting co-financiers to the project. EBRD's Legal Transition Team does some cross-cutting upstream work supporting legal reform (e.g., concessions law), but the infrastructure group leads the PPP engagement with client countries. EBRD does not carry out specific diagnostics related to PPPs, but—as mentioned earlier—assesses the overall development of the sector, and then follows a “market opportunistic” approach based on that assessment of country needs.

- 4.15 **Conflicts of interest could result in misaligned incentives when both advisory services (e.g., through the newly created IPPF) and project financing coexist.** To manage these conflicts, while EBRD bankers know about the IPPF project pipeline, they are not allowed to talk to any relevant government department (de facto implementing “Chinese walls”) and must wait until the tender documents are published to contact all private sector bidders in a nondiscriminatory way, expressing EBRD's willingness to co-finance a PPP project.
- 4.16 **Many of these changes are too recent to assess outcomes, but changes in activity is evident.** The establishment of the PPP cross-cutting practice in the WBG, for example, has led to a significant increase in the production of knowledge products and greater engagement and coordination with other MDBs, including the IDBG.

C. Knowledge products and platforms

- 4.17 **IDBG has created some knowledge products that help its positioning in the infrastructure PPP area,⁹⁴ but these products have not been institutionalized or coordinated into a specific body of work that can be consistently applied to IDBG operations and sustainable into the future.** IDBG, often coordinated by MIF, have also actively collaborated with the WBG on the creation of other products such as the PPP Reference Guide, PPP certification, and the International Infrastructure Support System (IISS). With the restructuring of MIF, some of these products may be taken over by other units, but to what extent is not

⁹² In terms of client engagement, EBRD's transport team, for example, works mostly at the central government level, while the MEI team works at the local government level. While a single transport team deals with sovereign and non-sovereign projects, there is some division of labor in geographical terms, with a sub-team working in advanced transition economies (mostly PPPs), and another sub-team developing public/private/PPP/mezzanine deals in the less-advanced transition countries.

⁹³ The scorecard includes several performance indicators such as, for example, number of deals, volume of finance, disbursement, transition impact rating, mobilization (co-financing), and equity component.

⁹⁴ (i) *Infrascope*: Four editions of an index and study that assesses the capacity of 19 countries in Latin America and the Caribbean to carry out sustainable public-private partnerships (PPPs) in infrastructure, built by The Economist Intelligence Unit. The methodology was designed and initially launched by MIF. The tool has now been adopted and is being applied by most of the MDBs in Asia, Europe and Africa. (ii) *PPP Americas*: Five editions of a conference for PPPs practitioners (with more than 400 participants). (iii) One Massive Open Online Course (MOOC) in Spanish on implementing PPPs in LAC and the Caribbean. (iv) Seminars in Peru and Brazil and papers on PPP fiscal impacts and treatment of its contingent liabilities.

yet clear. PPP lessons at the project level have not been systematically compiled and disseminated to other parts of the institution (except for a MIF paper on lessons learned from its support based on four case studies).⁹⁵ Other recent international initiatives with IDB participation include a memorandum of understanding with the Global Infrastructure Hub (GIH) and a formal agreement with the Global Infrastructure Facility (GIF).⁹⁶ For this evaluation, OVE has compiled operational lessons from other MDBs, which are summarized in Annex III, categorized by enabling environment, project preparation and project financing.

- 4.18 **IDBG has also not used project preparation facilities to their full potential.** Regarding InfraFund, one of its specific goals is to leverage infrastructure investments across the region by enhancing private provision of infrastructure. However, the vast majority of projects supported by the Fund, particularly since it no longer reported to the private sector vice-presidency, have been traditional public investments.⁹⁷
- 4.19 **Over the last 10 years a number of IPPFs have been set up to facilitate project development, improve project design, and encourage private sector participation** (Box 4.1). One of their aims is to adopt a consistent and high-quality approach to project preparation and transaction advice, especially for PPP projects. All IPPFs share the same rationale—the need to accelerate investments to fill the gap between available infrastructure and estimated needs. They also share similar objectives: to prepare projects that are technically and economically sound and “bankable,” bring them to the market, and attract private finance. In practice, however, these IPPFs differ in eligibility criteria, the extent in which they rely on in-house expertise or external advice, and the conditions for the funds to be reimbursable. (Annex IV presents an overview of the objectives of each facility).

⁹⁵ [Lessons Learned and Best Practices in Public-Private Partnership Projects](#). Ramón Espelt. April 2015.

⁹⁶ The agreement with the GIH is for IDBG to coordinate work on a pipeline of projects, a knowledge web, and a new capability framework. The agreement with the GIF is for IDBG to become a technical partner with access to funds for project preparation (GIF’s capital amounts to US\$100 million). Given that there two initiatives are at an early stage, there are no results to report yet.

⁹⁷ The evolution of InfraFund soon after it started operating explains some of its results. In January 2008, during the Bank’s realignment initiative, the InfraFund was moved from the office of the Private Sector Coordinator to GCM under VPC. Gradually, InfraFund-financed studies became more closely related to the Bank’s own pipeline preparation activities, focusing on public sector loans, and the Fund has increasingly supported programming exercises with the transport, energy, and water divisions of INE.

Box 4.1 Overview of MDB led IPPFs

	NEPAD-IPPF	InfraFund	AP3F	MED 5P	GIF	IPPF	Africa 50
Year operations started	2005	2006	2014	2014	2015	2015	2016
MDBs involved	AfDB	IDBG	AsDB	EIB, EBRD, KfW, AfDB	World Bank Group	EBRD	AfDB
Other funding partners	Canada, Denmark, Germany, Norway, Spain	N/A	Australia, Canada, Japan	European Union, European Commission, Union for the Mediterranean	Australia, Canada, China, Singapore	N/A	20 African countries and 2 central banks
Amount	US\$75mn	more than US\$80mn disbursed to date	US\$75mn	€15mn	US\$100mn	€40mn	US\$830mn raised to date; target of US\$1bn
Sources of funds	Donor funds; AfDB reserves	IADB ordinary capital	Donor funds; AsDB reserves	Grant contributions	Donor funds; WBG capital reserves	EBRD net reserves	20 African sovereigns; AfDB
Scope of projects	PPPs; Public	Public; Private; PPPs	PPPs	PPPs	PPPs	PPPs; commercialised Public	PPPs
Reimbursable funds	No	No	PPP - yes; some non-reimbursable grants	No	Yes	PPP - yes; Public - no	Yes

Source: Adapted from *Global Overview of International Knowledge Support across the Infrastructure Project Cycle* (WEF 2016)

4.20 The lessons of project preparation experience gained by international financing institutions suggest the following:⁹⁸

- Systematic assistance for project preparation and implementation support can result in an expanded pool of sustainable infrastructure projects. The resulting project pipeline sends a positive signal to construction firms and investors, incentivizing their commitment to PPP markets.
- Some MDBs use mainly in-house expertise, which makes knowledge capture easier, but can lead to complaints about unfair competition with private service providers. Others use mainly outside consultants, which can lengthen response times (this can be managed by “pre-qualifying” consulting firms) and makes knowledge capture within the MDB more difficult.
- Donors are willing to support and fund project preparation facilities, provided results can be demonstrated. They typically prefer that the MDB also commits its own resources, to align their incentives with those of MDBs.
- Cost recovery approaches (via reimbursable funds) can and should be introduced for PPP project preparation to align incentives among the MDB, the private sector, and the public sector client. To achieve client engagement, for example, up-front preparation costs can be made reimbursable by the private sector.⁹⁹ It is also advisable for MDBs to require a cash contribution from the

⁹⁸ IPPF – Contribution by EBRD to the G20 Infrastructure Focus.

⁹⁹ For example, in the case of EBRD’s IPPF, after a successful financial close, the winning bidder is obliged to pay the project preparation costs within 60 days of contract award to a specific account in EBRD, which captures IPPF’s reflows to replenish the facility.

public sector client during project preparation (e.g., 10% of cost) so that the public sector client also has some “skin in the game.”

- PPPs are best pursued when there is clear political will and project designs take into account a reasonable assignment of risks for the private sector. It is common for governments to underestimate the political commitments and resources required to put in place and implement successful PPP programs and projects. Political commitment needs to be strong and stable if both the public and private sector partners are expected to devote significant resources to preparing, investing in, and implementing projects.

4.21 **IPPFs belong to a wider set of so-called “knowledge platforms” that have recently emerged to support the development of infrastructure PPPs:**

- The *Public-Private Infrastructure Advisory Facility* (PPIAF) is a multi-donor technical assistance facility housed at the World Bank. Its objectives are to strengthen institutions, develop capacity, and increase creditworthiness. PPIAF tries to address obstacles—such as institutional weaknesses and lack of capacity in the public sector—that limit private sector participation in infrastructure. PPIAF provides technical assistance grants to governments to improve the enabling environment for the provision of infrastructure services by the private sector, including support for PPP programs.
- The *European PPP Expertise Centre* (EPEC), housed at the EIB, is a membership-based network of PPP units and public policy-makers that brings together the collective expertise and experience of its members to address practical issues in implementing PPPs, provide market intelligence, and develop PPP guidance and tools. EPEC also helps with PPP policy development and, to a lesser extent, with project preparation.
- The *Global Infrastructure Hub*, based in Sydney, Australia, was approved by the G20 to increase the flow and quality of opportunities for private and public infrastructure investment in G20 and non-G20 countries by facilitating knowledge sharing, highlighting reform opportunities, and connecting the public and private sectors through multiple knowledge sharing channels (e.g., best practice PPP risk allocation matrices).
- The *International Infrastructure Support System* is an online cloud-based project preparation and management tool, which provides templates for infrastructure projects, with the aim of improving the quality, consistency, and transparency of project preparation in both PPP projects and standard public procurement projects. It is a digital platform designed to speed up the delivery of infrastructure in the public sector, especially in developing countries.

V. CONCLUSIONS AND RECOMMENDATIONS

- 5.1 **Country-level PPP needs are not uniform but generally include help for the enabling environment, support for project preparation, and project financing.** More developed economies typically require financing and support for more sophisticated types of PPPs, while less developed ones initially require support for the enabling environment. A wide range of countries needs help with project preparation. Well-structured PPPs can make strong contributions to close the infrastructure gaps, but they are not the only solution. A decision on whether a PPP is the best solution should be based on proper VfM analysis.
- 5.2 **IDBG has been very active in the PPP space, particularly in project financing and somewhat in enabling environment support, but not in project preparation.** With over US\$5.8 billion of approvals for PPPs in the last decade, IDBG was a major player in LAC; indeed, in the area of PPP project finance, IDBG provided 35% of all MDB finance. However, IDBG provided only 1.2% of total PPP finance and can only expect to achieve significant impacts where it can have major mobilization or demonstration effects. Moreover, IDBG focused on the five most developed PPP markets for most (72% or US\$3.6 billion) of its project finance operations and for its enabling environment operations (58% of US\$900 million). Unlike other MDBs, IDBG provided very little assistance for project preparation (only 12 operations for US\$11 million), despite a significant need in that area.
- 5.3 **Results were mixed, but were better where IDBG had a long-term, focused approach in a specific country and sector, supported innovative projects, or added value on E&S requirements.** Where IDBG engaged in one-off operations (e.g., financing before the enabling environment was ripe and without accompanying support), projects were either cancelled or had suboptimal results. IDBG added significant value—for example, in the area of improved E&S performance—but only when it was able to engage early enough to influence project design and when the responsibilities between the public and private sector could be clarified. The biggest impacts were evident when IDBG supported innovative projects and had a long-term, focused approach in a country and sector over an extended period of time, but there were only a few examples of this kind (e.g., Colombia – road sector and Uruguay – wind power).
- 5.4 **In general, IDBG is not maximizing its potential impact.** PPPs are not coherently managed in IDBG. People with PPP skills are dispersed in the institution, without a central structure or support, and with little knowledge management. There have been some informal attempts at improving coordination, such as the PPP working group organized by MIF, but even for that there has been little managerial support and its sustainability is unclear, now that MIF has shifted its strategy. There is no formal PPP strategy, and IDBG pursues an opportunistic approach that seems purely demand-driven and not strategic. While there has been some capacity building for the enabling environment, there has been almost no work in project preparation—an area of clear need in the region. There is no systematic collection and dissemination of lessons, ex-post evaluation, or analysis of results. Other MDBs have faced similar problems but have moved to address them; IDBG could learn from their experiences.

5.5 **IDBG's main gaps will not be solved by the merge-out.** In fact, the merge-out can create additional difficulties, particularly since previously most infrastructure projects were handled within IDB, but private projects will now be handled by IIC. However, the new IIC also creates opportunities for better coordination—for example through the SG-NSG coordination division, and by having “joint” country representatives handling both public and private operations. Gaps that require attention are related to strategy, people (skills mix and delivery capability), and organization (incentives, coordination, focus). There are also gaps at the operational level related to products (e.g., PPP advisory services, local currency, and support for subnational PPPs) and process (selection, evaluation, learning). It is important to point out that different parts of the IDBG have recently made some efforts (for example, advertising positions for PPP advisory services in IIC) to address these gaps. But there are also concerns, such as MIF's reorganization and the potential loss of a focal point for PPPs within the IDBG.

5.6 **Drawing on the findings of this evaluation, OVE has recommendations for management on three levels – strategic, organizational, and operational –** which ideally should be addressed through an integrated IDBG action plan:

- **Strategic level**

- (i) **Identify and assess the potential demand for PPPs through specific country diagnostics.** These diagnostics—a mapping of PPP opportunities—should include analyses of at least the following aspects: (i) infrastructure needs at the sector level; (ii) the PPP environment (i.e., legal and regulatory framework and institutions, the potential for private investment and maturity of local capital markets); (iii) the fiscal constraints and risks; and (iv) the type of support from multilaterals that governments are looking for.
- (ii) **Define priorities for intervention.** This would include a general framework considering in which countries and sectors support is needed and what type of support is needed, and defining priorities.

- **Organizational structure and skills**

- (i) **Establish a PPP focal point in the IDBG structure.** Drawing on IDBG's own experience and the lessons learned from other MDBs, assess which option is the most suitable given the IDBG's current organizational structure. The focal point needs to have sufficient authority and resources to foster collaboration and pull together all relevant parts of the IDBG (public and private) to deliver seamless PPP services to clients, including investments and advice.
- (ii) **Assess the current PPP capacities in the organization.** Currently PPP capacities are dispersed throughout the IDBG. Part of the PPP action plan should include taking an inventory of the skills IDBG currently has, identifying what is missing, and working on attracting and retaining needed skills.
- (iii) **Reform incentives.** Staff are currently rewarded mainly according to the volume booked in their window. This is particularly problematic since it is easier to book an SG operation than a PPP. The incentives should move from IDBG approval volumes to the amounts IDBG can mobilize from

private investors, and there should be incentives for collaboration (e.g., for public sector staff to identify PPP opportunities).

- **Operational level**

- (i) **Analyze infrastructure projects in the pipeline and advise countries on the most suitable delivery model for the projects.** IDBG needs to quickly study potential projects in the pipeline and advise first on whether a project should go forward, and then on which is the best instrument to support it (e.g., by systematically reviewing, if one exists, or conducting a VfM assessment). Ideally this analysis and advice should be independent of the sector that will be originating the operation, selecting the best alternative for the client (e.g., in terms of PPP vs. public project and in terms of instruments). This assessment needs to also include governance issues (e.g., how the public sector project, PPP, or concession was awarded), as well as E&S issues (e.g., whether there was sufficient consultation up front and whether the critical E&S and climate change issues have been addressed, with clarity about the roles between the public and private sectors).
- (ii) **Explore the use and development of new financial and advisory products tailored to countries' specific needs.** Options to explore include, for example, local currency financing, advisory services, specific instruments to support subnational governments, and project preparation facilities.
- (iii) **Strengthen the results framework for PPP operations.** PPP operations should routinely review VfM (i.e., is a PPP the best alternative); the quantity and quality of services delivered; the costs, both for taxpayers (known and contingent fiscal impacts) and for users (e.g., considering affordability for poorer households); and the likely sustainability of the arrangements. Regarding E&S issues, it will be important to assess whether critical objectives have been met; particularly for infrastructure projects with significant E&S issues, ongoing consultation and disclosure by the concessionaire would be highly desirable.
- (iv) **Design a specific PPP knowledge strategy.** The IDBG should systematically capture and document the results and lessons learned of PPP operations through an improved system for knowledge management, recognizing that confidentiality issues could make this learning process more challenging, requiring public and non-public versions of documents.
- (v) **Systematically incorporate lessons learned from IDBG's own operations and from other MDBs in the design and implementation of new PPP operations.** The central unit should play a critical role in engaging with other MDBs and identifying lessons and best practices.

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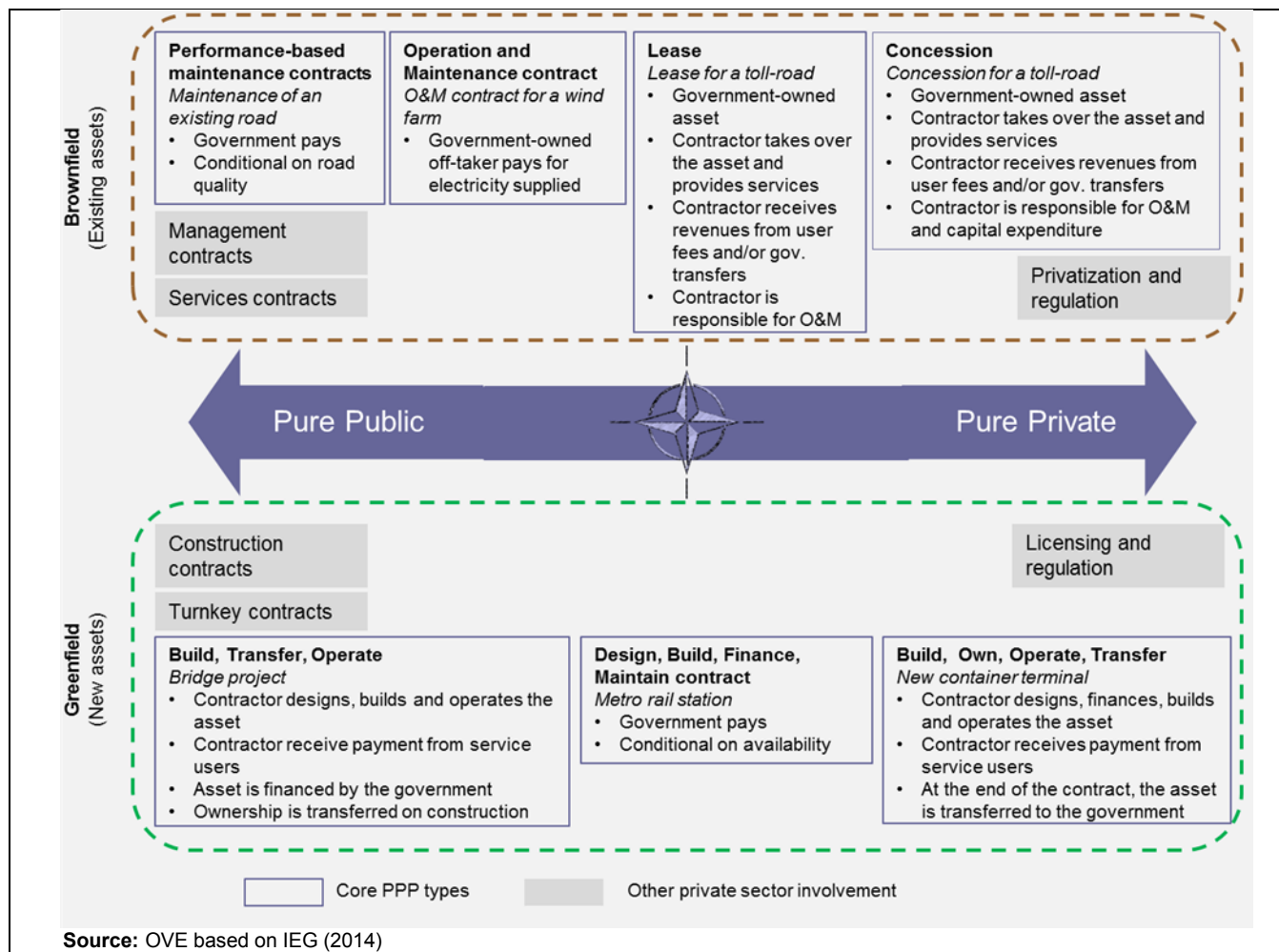
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ANNEX I

CONTRACTUAL ARRANGEMENTS BETWEEN THE PUBLIC AND PRIVATE SECTORS



ANNEX II

MARKET DATA, EVALUATION PORTFOLIO

A. Context data based on PPI Database

For the description of the PPP market in Latin American and the Caribbean for the past decade, OVE based its analysis on the data available in the Private Participation in Infrastructure (PPI) Database of the World Bank.¹⁰⁰

Investments recorded in the database are those made or to be made by the project company under the PPI contract. In many cases project companies are owned by both private and public parties. Therefore, the database does not record private investment alone. If investment commitments change during the contract period due to contract renegotiation, they are adjusted in the database when information is publicly available. If revised investment commitments are not available, original investment amounts are kept in the database.

Given data characteristics, the database does not provide an exhaustive listing of each and every infrastructure project with private participation in every developing country, or a precise estimate of investments. It is very likely that some projects have been missed, and investment figures are rough estimates. Rather, the objective is to provide access to detailed and aggregated data that can serve as the basis for estimates and analyses of private participation in infrastructure and its trends by country, region, and sector.

In line with the PPP definition used by OVE for the current evaluation (and explained in the main report), projects categorized as PPPs do not include divestiture and management and lease contracts. Sectors analyzed include energy, information and communication technology (ICT), transport, and water and sanitation.

These and more definitions and methodological information for the PPI Database can be found at <https://ppi.worldbank.org/methodology/glossary> and at <https://ppi.worldbank.org/methodology/ppi-methodology>

B. Evaluation portfolio identification process

Since PPP projects are not documented as such in IDBG's databases, OVE had to define an approach for identifying this type of project from IDBG's internal database.

In a database containing all of IDB's operations, OVE searched for key words in the fields *project's description*, *objectives description* and *activities' description*. To identify a preliminary sample, a custom filter containing the following combinations of words was applied to each of these fields:

PPP	public private	private sector participation	design + maintenance
APP	private-public	private sector + maintenance	operate + transfer
concession	private public	construction + operation	SCF/INF
concession	public-private	operation + maintenance	SCF/CFI

¹⁰⁰ Last updated in December 2016.

To ensure that all PPP projects that the IDBG had been involved in were included in the sample, OVE also did a search on external databases such as the PPIAF and ProjectWare. During this process, some IIC operations and a few more operations from IDB were identified and added to the preliminary portfolio for the evaluation. OVE obtained a total of 461 operations after this process.

OVE then manually reviewed all 461 operations to identify those that were truly related to infrastructure PPP projects. In this sense, OVE conducted a preliminary document review of all the 461 operations, focusing on the project proposals, legal agreements, and supervision reports. As a result, OVE came up with a preliminary list of around 180 operations including loans, PBLs, guarantees, and TCs for enabling environment, project preparation, and financing of PPP projects in infrastructure.

OVE then conducted further analysis on some operations that seemed to be PPP-related operations at first, actually had a contractual relation among private parties. This, together with comments received from Management, helped refine and reduce the number of operations to 145—the final PPP portfolio used for this evaluation.

Once the PPP portfolio was identified, the next step was to refine the final value of the portfolio, as it included PBLs that targeted more areas than just PPP activities. For these operations, only the components related to PPPs were considered. Thus, the approved amount for each PBL was divided by the total number of components it had, and then only those components that contained PPP-related activities were added into the total PPP portfolio value.

Throughout the identification process, past evaluations conducted by OVE and internal systems were reviewed to identify operations on infrastructure PPPs. Among the evaluations and systems reviewed were the following:

1. El FOMIN y las Asociaciones Público-Privadas
2. Evaluation of Special Programs Financed by Ordinary Capital
3. Climate Change and the IDB: Building Resilience and Reducing Emissions
4. 2015 Annual Report Technical Note: Design and Use of Policy-Based Loans at the IDB
5. OVE Wiki

C. Sampling Approach¹⁰¹

OVE used country case studies to look in depth at PPP projects in the transport and energy sectors between 2009 and 2012. The time period was selected to ensure that projects were sufficiently mature to have results but still relatively recent and thus relevant for today's operations. The studies focused on the country's PPP regulatory and institutional frameworks, as well as on specific PPP projects. Also, OVE assessed relevant PPP financing mechanisms (such as TCs or loans) used to improve the enabling environment and to support project preparation. The aim of the case studies was to provide lessons for future PPP projects.

¹⁰¹ To preserve potentially commercially sensitive information, this section will be modified before the report is published

The selection criteria for the case studies were intended to provide a diverse pool of experiences from which OVE can collect relevant project-level lessons. Using the selection criteria (summarized below), OVE identified 16 projects from the broad portfolio that were analyzed through five country case studies. The sample included projects in roads, urban transport, wind, and hydro, and is thus broadly representative of the IDBG's portfolio during 2009-2012. Over two-thirds of the energy and transport projects approved during the period were in those four areas.¹⁰² The sampling criteria are detailed below:

- **Period 2009-2012:** OVE included all IDBG financing for infrastructure PPP projects approved between 2009 and 2012, ensuring that those activities were approved not too long ago but can still provide sufficient operational experience (i.e., only mature projects were selected).
- **Sector:** OVE reviewed projects in the transport and energy sectors, the two main sectors supported by IDBG during this period. In fact, 100% of PPP financing by IDBG went to transport and energy PPP projects.
- **Subsectors:** Within these two sectors, OVE focused its analysis on roads, urban transport, wind, and hydro projects, which were the main recipients of PPP financing by IDBG (over 74% of the resources went to these four activities).
- **Country variety:** From this sample, OVE selected PPP financing operations in countries with different levels of development in terms of their PPP enabling environment and income levels and included countries from all IDB country departments. The five countries selected represented almost 80% of the PPP financing provided by IDBG during this period.
- **Other PPP activities were also assessed:** For the countries selected, OVE reviewed a total of 22 PPP operations for enabling environment and project preparation to understand the context of each country (e.g., IDBG role in the country, history of the PPP projects, and value added).
- **Synergies with Country Program Evaluation (CPE) work:** This evaluation benefited from the work being done by the CPE teams for two of the countries selected; the PPP team joined both CPE teams during interviews with public entities and private companies during the missions to the countries.

In addition, OVE carried out an assessment of IDBG's work on the enabling environment for PPPs in Colombia. To complement the cases mentioned above, OVE also conducted a case study on Colombia with a specific focus on IDBG's work to improve the enabling environment. Colombia was chosen because IDBG had done significant work on the enabling environment over a longer period (since 2007) than the one used for selecting the sample. OVE also reviewed the two PPP financing operations that were approved in Colombia during 2006-2015.

¹⁰² IDBG also supported other types of energy and transport operations, such as airports, rail systems, and geothermal and solar power projects, but with significantly lower approval volumes. The percentage excludes oil and gas projects.

ANNEX III

OPERATIONAL LESSONS OF MDBS FROM THEIR PPP EXPERIENCE

Other MDBs have drawn lessons and identified key success factors based on their experience with PPP activities.^a The ADB, EBRD, EIB, and the World Bank Group (including IFC) have a rich PPP experience based on their PPP project portfolios and extensive involvement with PPP activities in their regions of operation. A summary of those lessons of experience, classified in line with the PPP areas of MDB involvement used in this evaluation, is the following:

Enabling environment

- **Long-term political commitment.** PPPs outsource the design, operation and maintenance of public infrastructure, and thus crucially require long-term political commitment during the initial stages of awarding the PPP contract and over the entire lifecycle of the project for private operations to be sustainable. PPPs are a fundamentally different way of delivering public infrastructure assets and services compared with standard public procurement and, as such, require governments to introduce new practices and manage internal and external opposition. It is common for governments to underestimate the political commitments and resources required to put in place and implement successful PPP programs and projects. This political commitment needs to be strong and stable if both the public and private sector partners are expected to devote significant resources to preparing, investing in and implementing projects. Any project requires a *champion*: someone to articulate and refine the vision, guide progress, and advocate for support. For PPPs, political champions are particularly vital, given the significant public stake in them.
- **Stable legal and regulatory frameworks.** PPP projects require an effective legal framework, in particular to regulate the ability to use PPP schemes, the procurement process and key contractual provisions. From the private investor's viewpoint key aspects include *international arbitration* (in particular where domestic court system is perceived to be weak); *lenders' step-in rights* (ability to replace a non-performing private contractor); and *availability payments* (in cases where demand risk cannot be transferred to the private party). A sound regulatory environment is also a necessary condition for the success of a PPP, especially in sectors where prices (and thus the business case supporting the PPP option) are driven by regulation.
- **Communications and public acceptability.** The complex technical nature of PPPs can create a misunderstanding of their likely benefits and the rationale for their use. Even when PPPs are successful in delivering high quality assets on time and within budget, and in providing improved services, such successes tend to lack an effective public communication strategy. PPPs typically feature a large assortment of interested and influential stakeholders, with diverse economic, political, social, and environmental concerns. The most successful PPP projects do more than just identify and manage stakeholders; they also develop a deep understanding of stakeholders' interests and optimize the business case accordingly.

Project preparation (including feasibility and design)

- **Value-for money.** PPPs should be pursued where a project's underlying *business case* is sound and its *value-for-money* is clear (i.e. when there are potential efficiency gains in design/construction, operations and maintenance, and management above and beyond what a comparable public sector agency could achieve), as opposed to a desire to place the investment off-balance sheet for the public sector. Governments sometimes see PPPs as a way to rescue financially challenging projects. While PPPs can indeed improve project economics, basic economic assumptions such as revenues, costs, and level of investment must integrate into a reasonable and sustainable business case with demonstrable value-for-money.
- **Risk allocation.** An efficient risk allocation among the public and private parties is crucial and needs to be thought through carefully across the entire risk spectrum: *macroeconomic risks* (e.g., interest rate, liquidity, forex); *commercial risks* (e.g., force majeure, demand, design and construction, operational, technology, residual value); and *legal/political risks* (e.g., regulatory change, expropriation). No single formula fits all requirements: different types of PPP arrangements are appropriate at different times and for different sectors. While private investors tend to demand maximum protection against downside risks, there are often public concerns related to the 'excessive' profitability of PPP projects, which can potentially undermine the political sustainability of the project. Addressing social and environmental issues is a precondition for success; major projects can easily unravel when such issues are not fully considered.
- **Public sector capacity.** PPPs involve complexities at all stages of the project cycle (preparing, procuring, financing and managing performance-based contracts) and require a wide range of skills, some of which may be new to the public sector or difficult to attract and retain in the public sector. When the public contracting authority has little to no prior PPP experience, engaging PPP transaction advisers (legal, technical, financial) becomes a necessary condition. Having the right balance of global and local expertise is critical. Global experts can bring critical knowledge and best practices from other sectors or geographies—expertise that is not easily obtained elsewhere. Yet perhaps even more important is the presence of local, on-the-ground capabilities.
- **Private sector capacity.** Many countries have a limited domestic market where the technical or financial capacity of contractors, service providers, investors, lenders and advisers to deliver PPPs is underdeveloped. Local private sector involvement and expertise is needed at least in the local contractors; material input providers; local lawyers and PPP advisory support; and local accountants. In some countries, a major capacity constraint is the lack of domestic financiers or contractors to support PPP projects with long-term project finance or equity.
- **Procurement and approval process.** Clearly defined powers and processes in the public sector are a prerequisite for the appropriate selection and subsequent effective management of the various phases of PPP project development. Regardless of country specific public procurement rules, PPP projects should follow best international standards in procurement, with open, transparent and competitive procedures. The way in which a PPP contract is procured is key to obtaining value-for-money: effective competition should drive costs down and incentivize private sector innovation.

Project financing (and implementation)

- **Project affordability.** PPP *funding* and PPP *financing* are distinctive challenges. While there are many instruments for *financing* the upfront investment costs of infrastructure PPP projects – plain budget financing, long-term loans, bonds, equity – there are essentially only two sources of *funding* the full cost of infrastructure – i.e., either from the public budget (through taxation) or from the users of the infrastructure asset (through direct charges). Where user charges are not feasible or can only provide limited revenues in comparison to the capital and operating costs of the project, public budget funding becomes the only source to pay-back for the costs of infrastructure. The *funding* of projects tends to be a significant obstacle to PPPs (possibly the biggest) since public budgets are severely limited and users' unwillingness to pay for public services is such that the long-term affordability of PPP projects is frequently challenged.
- **PPP fiscal risks.** Governments may favor the PPP option to overcome fiscal constraints which limit their ability to mobilize the amount of public financing required for infrastructure investment and/or to achieve fiscal targets, especially if PPP investment can be treated “off-balance” from the public national accounts. However, an excessive focus on the *off-balance sheet* treatment of a PPP can be at the expense of sound project preparation, and may push procuring authorities to use PPPs where it is not appropriate. Also, when a PPP project is off-balance sheet, there is a risk that the fiscal liabilities that arise from it are not managed properly (e.g. recognition of government financial commitments, whether firm or contingent, explicit or implicit).
- **Local capital markets.** Better knowledge of the local market and ability to provide local currency financing (thus avoiding a currency mismatch) are two substantial advantages when local financial markets and institutions co-finance local PPP projects.
- **Contract monitoring.** PPP partners need to have the capacity to monitor and manage their contracts, ensuring compliance and resolving disputes. They also need to contemplate the possibility of renegotiation as the circumstances change over the long lifetime of a PPP contract. The need to renegotiate a PPP contract is not necessarily a sign of failure; it can also result from projects that are overly successful, for example.

^a Asian Development Bank (2009). Special Evaluation Study on ADB Assistance for PPPs in Infrastructure Development – Potential for More Success <https://www.adb.org/documents/adb-assistance-public-private-partnerships-infrastructure-development-potential-more>

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ANNEX IV
KEY OBJECTIVES OF MDB-LED INFRASTRUCTURE PROJECT
PREPARATION FACILITIES (IPPFs)

IPPF	Objectives
NEPAD-IPPF	The objective of the <i>New Partnership for Africa's Development - Infrastructure Project Preparation Facility</i> (NEPAD-IPPF) Special Fund is to assist African countries to (i) prepare high quality and viable infrastructure projects, ready to solicit financing from public and private sources; and (ii) support the creation of an enabling environment for private participation in infrastructure, and targeted capacity building initiatives to enhance the sustainability of existing and planned infrastructure.
InfraFund	IDBG's <i>InfraFund</i> is designed to assist public, private and mixed-capital entities in Latin America in the identification, development and preparation of bankable and sustainable infrastructure projects that have the potential of reaching financial closure. The <i>InfraFund</i> aims at promoting PPPs to increase the provision of infrastructure.
AP3F	The <i>Asia Pacific Project Preparation Facility</i> is a multi-donor umbrella facility set up to encourage private sector participation in infrastructure in the Asia Pacific region by adopting a more consistent and higher-quality approach to prepare, structure, and place PPP projects in the market.
MED 5P	The <i>EU Public-Private Partnership Project Preparation Advisory Facility for the Southern Neighborhood (MED 5P)</i> supports public authorities in Egypt, Jordan, Lebanon, Morocco and Tunisia in the preparation, procurement and implementation of infrastructure PPPs.
GIF	The <i>Global Infrastructure Facility (GIF)</i> is a partnership among governments, MDBs, private sector investors and financiers designed to prepare, structure, and implement complex projects drawing on the combined expertise of technical and advisory partners (including commercial banks and institutional investors) to bring to market well-structured, bankable, and sustainable infrastructure projects.
IPPF	EBRD's <i>Infrastructure Project Preparation Facility</i> (IPPF) objectives are to improve the quality, efficiency and replicability of infrastructure projects to be financed by the Bank for the benefit of its clients in EBRD region, reducing time to mobilization of consultants through use of "call-off" framework consultants to deliver all project preparation.
Africa50	Africa50 seeks to facilitate project development and to channel capital from private investors into well-structured projects, overcoming project bottlenecks by helping to mobilize the necessary political support thanks to its sovereign shareholder base.
Source: MDB websites	

ANNEX V

CONTEXT – GRAPHS AND TABLES

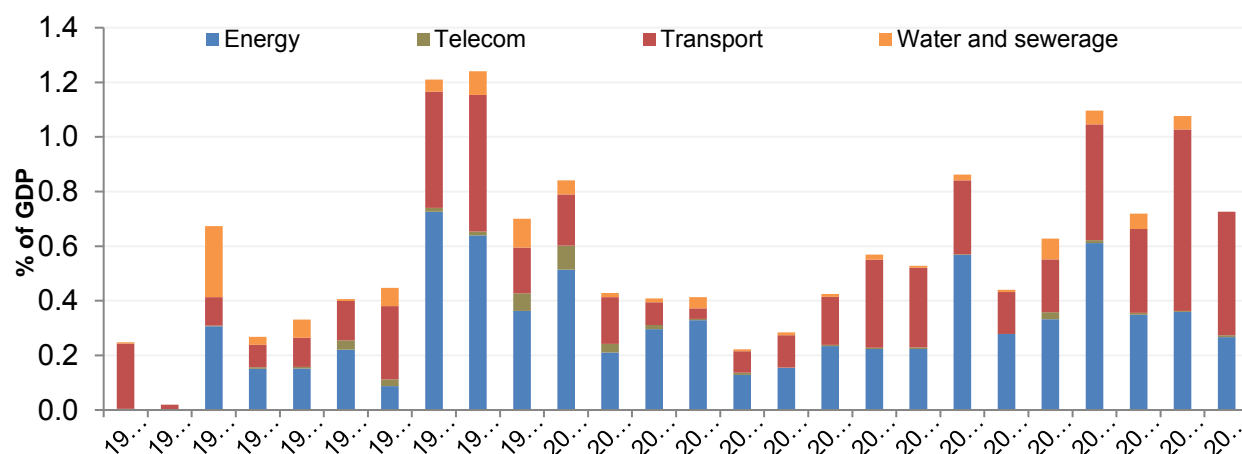
a. PPP Investment in LAC 2006-2015 (US\$ million)

Country	GDP 2015	Private investment in infrastructure	PPP investment	MDBs PPP financing
Developed PPP markets				
Brazil	\$1,774,725	\$265,138	\$230,797	\$2,134
Chile	\$240,216	\$25,273	\$19,819	\$1,116
Colombia	\$292,080	\$37,183	\$25,480	\$623
Mexico	\$1,144,331	\$64,695	\$40,396	\$1,469
Peru	\$192,084	\$28,602	\$23,432	\$2,502
Subtotal Developed	\$3,643,436	\$420,890	\$339,924	\$7,844
Emerging PPP markets				
Costa Rica	\$51,107	\$2,984	\$2,177	\$465
El Salvador	\$25,850	\$792	\$157	\$0
Guatemala	\$63,794	\$4,082	\$2,183	\$488
Honduras	\$20,152	\$4,705	\$3,062	\$734
Jamaica	\$14,006	\$1,967	\$1,379	\$364
Panama	\$52,132	\$3,714	\$2,109	\$742
Paraguay	\$27,623	\$1,311	\$0	\$0
Uruguay	\$53,443	\$3,185	\$2,668	\$599
Subtotal Emerging	\$308,107	\$22,739	\$13,734	\$3,392
Nascent PPP markets				
Argentina	\$583,169	\$21,341	\$4,211	\$656
Belize	\$1,763	\$115	\$115	\$6
Bolivia	\$33,197	\$445	\$0	\$0
Dominican Republic	\$67,103	\$1,944	\$1,294	\$312
Ecuador	\$100,872	\$4,484	\$485	\$130
Haiti	\$8,877	\$420	\$114	\$44
Nicaragua	\$12,693	\$2,068	\$1,388	\$252
Suriname	\$4,878	\$60	\$0	\$0
Venezuela	\$371,337	\$3,711	\$0	\$0
Guyana	\$3,166	\$0	\$0	\$0
Trinidad and Tobago	\$27,806	\$0	\$0	\$0
Subtotal Nascent	\$1,214,860	\$34,587	\$7,607	\$1,399
Total	\$9,117,945	\$478,216	\$361,266	\$12,636

Source: WB and PPI Database (2016). Venezuela: GDP for 2013.

b. PPP Investment in infrastructure as % of GDP by sector (1990-2015) in LAC

Source: PPI Database (2016).



c. Variations of PPP enabling environment (2009-2014) – by improvement

2014 Overall rank	Country	2009	2010	2012	2014	Improvement (2009-2014)
6	Uruguay	30.5	34.8	49.5	52.9	22.4
7	Guatemala	26.9	40.9	43.5	46.3	19.4
4	Mexico	49.4	58.1	63.0	67.8	18.4
9	El Salvador	24.5	30.7	39.3	41.6	17.1
8	Jamaica	28.4	26.6	30.3	44.4	16.0
5	Colombia	46.5	55.3	59.6	61.0	14.5
2	Brazil	61.0	71.9	71.6	75.4	14.4
11	Honduras	23.7	24.2	34.0	37.7	14.0
12	Paraguay	23.3	24.7	29.9	37.0	13.7
17	Nicaragua	8.6	17.1	20.6	20.6	12.0
3	Peru	59.2	68.1	69.6	70.5	11.3
16	Ecuador	11.9	12.4	20.0	22.1	10.2
1	Chile	68.2	79.4	76.4	76.6	8.4
12	Trinidad & Tobago	31.7	32.2	34.4	37.0	5.3
14	Panama	29.0	36.4	34.0	34.0	5.0
10	Costa Rica	37.3	32.6	39.0	39.0	1.7
15	Dominican Republic	26.3	24.0	26.0	24.2	-2.1
19	Venezuela	9.9	5.3	5.3	3.2	-6.7
18	Argentina	29.3	30.3	17.6	16.0	-13.3

ANNEX VI
TABLES – IDBG PPP PORTFOLIO DETAILS

a. Summary by instrument

Phase/instrument	Apprvd. amt (US\$ million)	Apprvd. amt (%)	Number of operations (#)	Number of operations (%)
Enabling environment	\$901.0	15.4%	77	53.1%
Loan	\$414.6	46.0%	15	19.5%
Policy-based loan	\$455.9	50.6%	11	14.3%
Technical cooperation	\$30.4	3.4%	51	66.2%
Project preparation	\$10.9	0.2%	12	8.3%
Technical cooperation	\$10.9	100.0%	12	100.0%
Financing	\$4,945.9	84.4%	56	38.6%
Equity	\$3.5	0.1%	1	1.8%
Guarantee	\$460.0	9.3%	2	3.6%
Loan	\$4,480.1	90.6%	48	85.7%
Technical cooperation	\$2.3	0.1%	5	8.9%
TOTAL	\$5,857.8	100.0%	145	100.0%

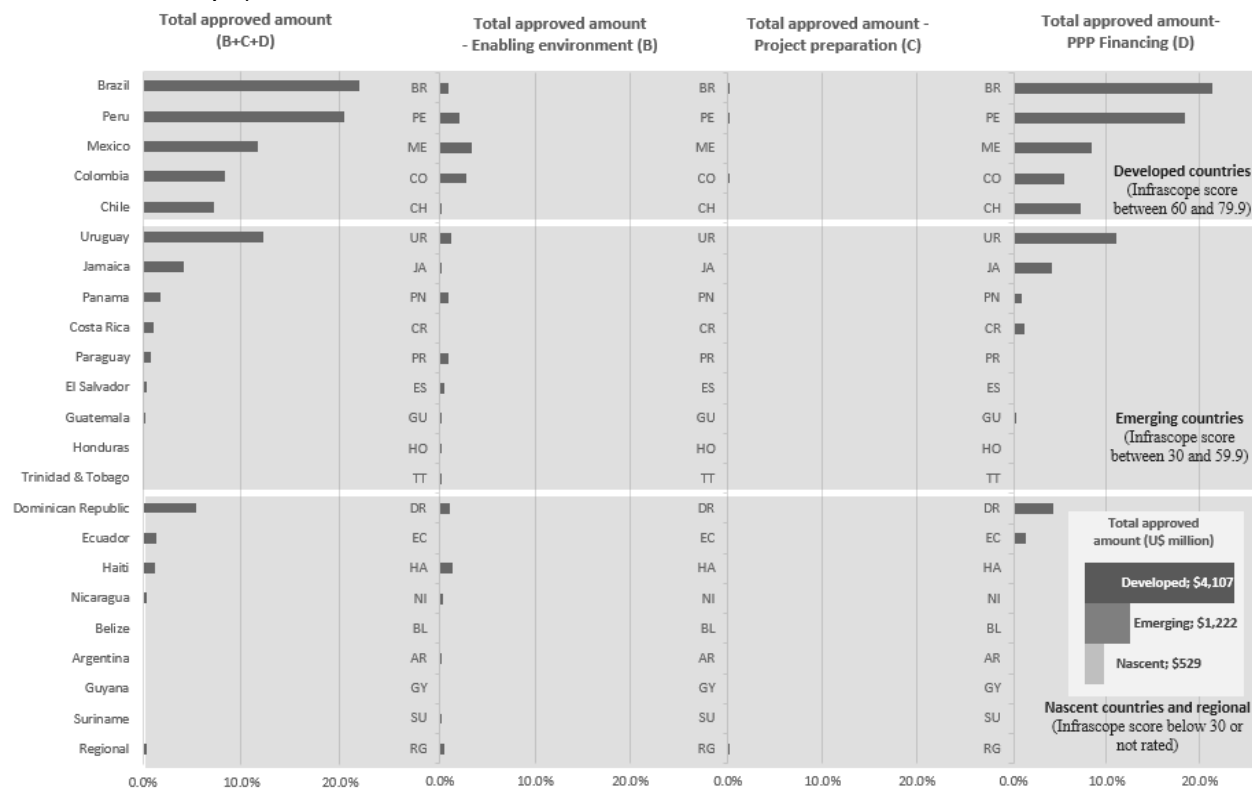
b. Summary by sector

Applicable sector	Apprvd. amt (US\$ million)	Apprvd. amt (%)	Number of operations (#)	Number of operations (%)
Enabling environment	\$901.0	15.4%	77	53.1%
Multiple sectors	\$361.7	40.2%	41	53.3%
Energy	\$278.5	30.9%	11	14.3%
Water and sanitation	\$116.6	12.9%	11	14.3%
Health	\$75.2	8.4%	2	2.6%
Transport	\$69.0	7.7%	11	14.3%
Telecommunications	\$0.0	0.01%	1	1.3%
Project preparation	\$10.9	0.2%	12	8.3%
Transport	\$4.6	42.3%	5	41.7%
Multiple sectors	\$3.5	32.2%	4	33.3%
Energy	\$1.5	13.8%	2	16.7%
Agriculture	\$1.3	11.8%	1	8.3%
Financing	\$4,945.9	84.4%	56	38.6%
Transport	\$3,223.6	65.2%	22	39.3%
Energy	\$1,722.4	34.8%	34	60.7%
TOTAL	\$5,857.8	100.0%	145	100.0%

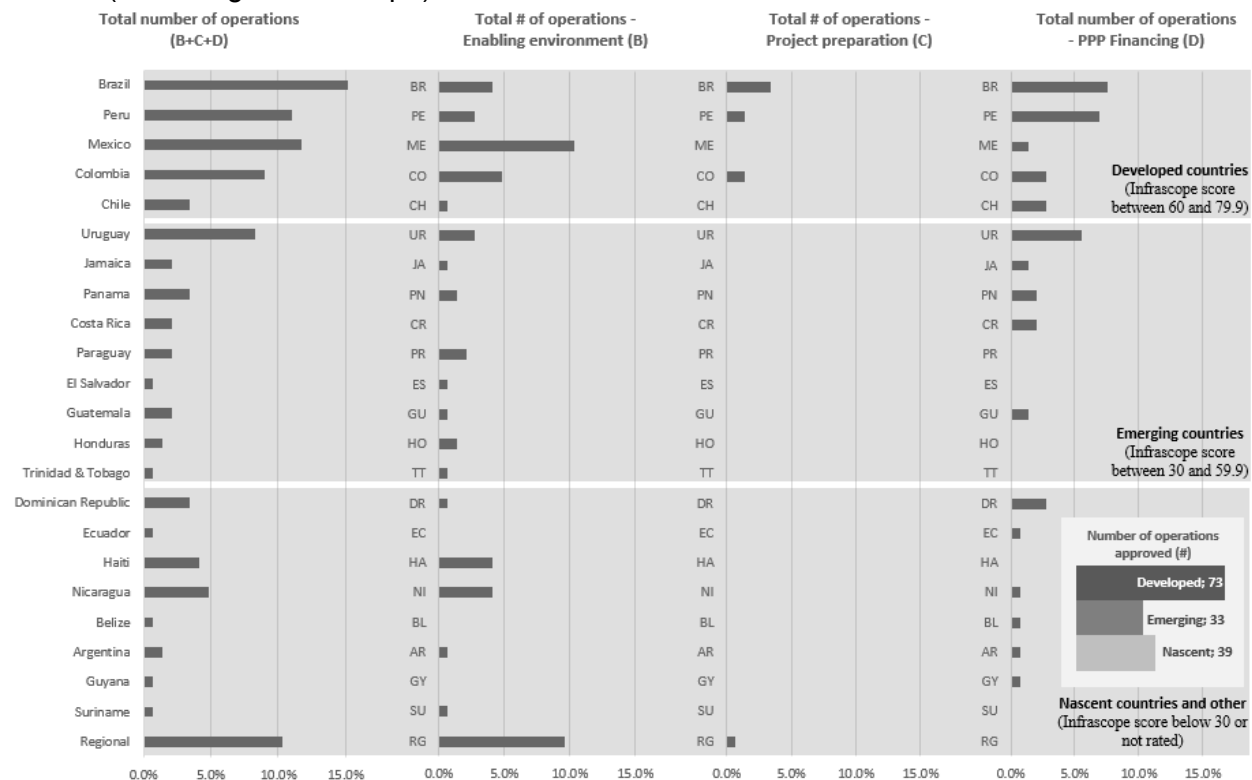
c. Summary by country

Country	Apprvd. amt (US\$ million)	Apprvd. amt (%)	Number of operations (#)	Number of operations (%)
A countries	\$1,998.3	34.1%	41	28.3%
Argentina	\$4.0	0.1%	2	1.4%
Brazil	\$1,311.8	22.4%	22	15.2%
Mexico	\$682.5	11.7%	17	11.7%
B countries	\$2,113.0	36.1%	34	23.5%
Chile	\$426.9	7.3%	5	3.5%
Colombia	\$490.9	8.4%	13	9.0%
Peru	\$1,195.2	20.4%	16	11.0%
C countries	\$1,130.9	19.3%	25	17.2%
Costa Rica	\$65.0	1.1%	3	2.1%
Jamaica	\$245.7	4.2%	3	2.1%
Panama	\$102.2	1.7%	5	3.5%
Suriname	\$0.5	0.01%	1	0.7%
Trinidad and Tobago	\$0.9	0.01%	1	0.7%
Uruguay	\$716.8	12.2%	12	8.3%
D countries	\$590.6	10.1%	31	20.7%
Belize	\$6.0	0.1%	1	0.7%
Dominican Republic	\$315.6	5.4%	5	3.5%
Ecuador	\$78.1	1.3%	1	0.7%
El Salvador	\$25.0	0.4%	1	0.7%
Guatemala	\$14.3	0.2%	3	2.1%
Guyana	\$1.2	0.02%	1	0.7%
Haiti	\$74.5	1.3%	6	4.1%
Honduras	\$1.2	0.02%	2	1.4%
Nicaragua	\$24.0	0.4%	7	4.8%
Paraguay	\$50.7	0.9%	3	2.1%
Regional operations	\$24.9	0.4%	15	10.4%
TOTAL	\$5,857.8	100.0%	145	100.0%

d. Distribution of portfolio by approved amounts and country PPP capacity (according to Infrascopes)



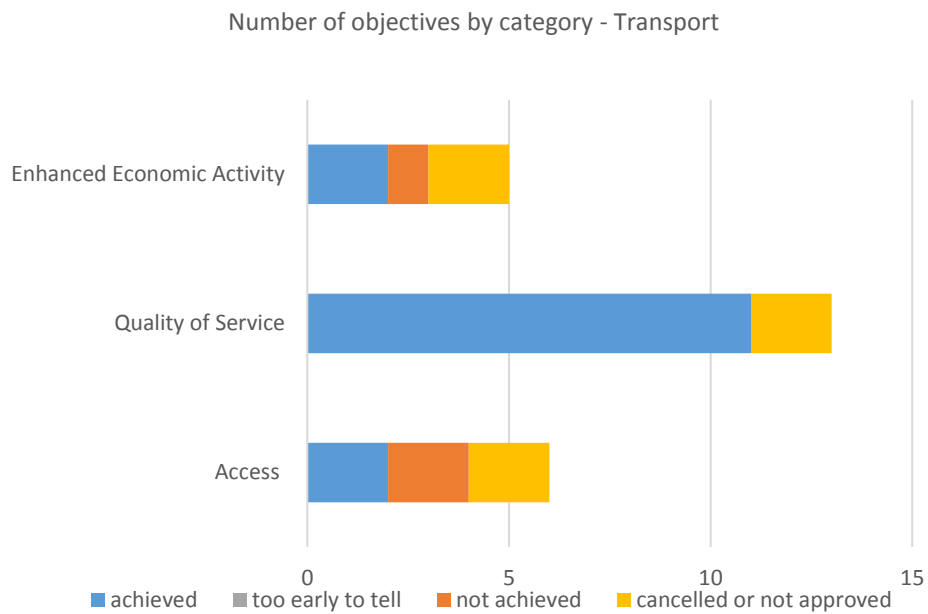
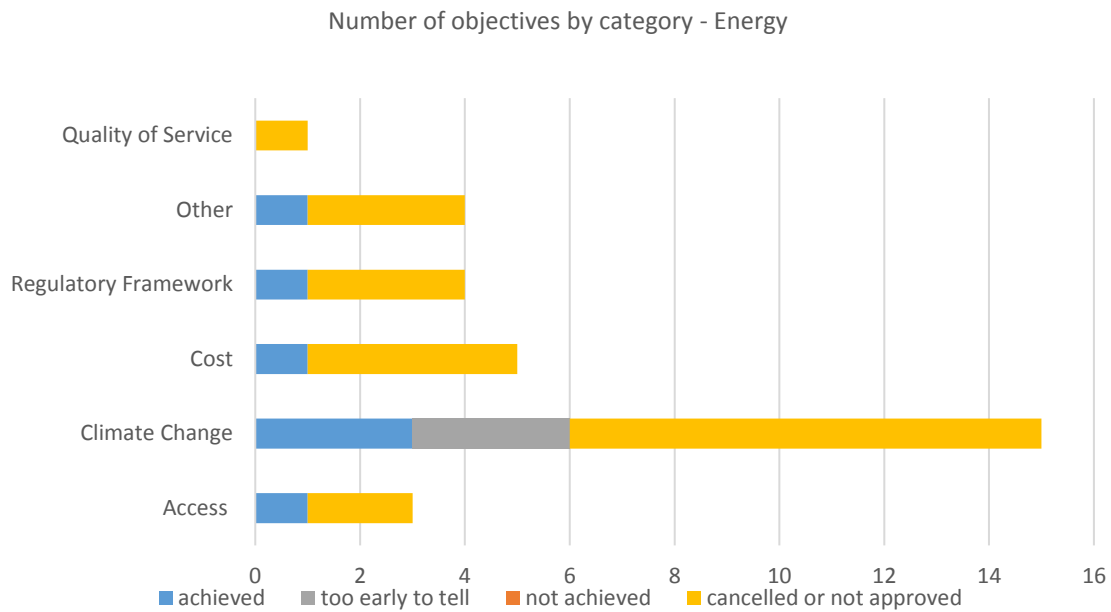
e. Distribution of portfolio by number of operations approved and country PPP capacity (according to Infrascopes)



f. Summary of objectives identified in cases

Sector	# of occurrences
Energy	
Reduce the percentage of electricity generated from fossil fuels	5
Reduce the carbon footprint	5
Improve technology and know-how transfer during both the construction and operation phases	4
Increase renewable energy to hedge against oil price volatility	3
Reduce exposure of the electricity sector to lower hydropower production	2
Test new regulatory framework favorable to renewable energies	2
Increase renewable energy to reduce foreign currency exposure	1
Earn Certified Emission Reduction (CERs) under the (CDM) process	1
Increase long-term, low-price, and reliable sources of renewable energy	1
Transport	
Improve time savings, quality of life	4
Increase system capacity	3
Increase safety conditions	2
Improve service quality	2
Facilitate business and commercial exchanges	2
Create jobs	2
Increase use of asset	1
Enhance traffic conditions	1
Enhance economic activities in the areas surrounding the new stations	1
Reduce overall vehicle emission levels with resulting improvements in air quality	1
Reduce noise and vibration levels associated with road traffic	1
Reduce traffic congestion	1
Allow for increased daily movement of tourists	1

g. Achieved objectives by category



Source: OVE