



Approach Paper

Evaluation of Public-Private Partnerships (PPPs) in Infrastructure



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ACRONYMS AND ABBREVIATIONS

DFI	Development finance institution
ESG	Environmental, social, and governance
GDP	Gross domestic product
IDB	Inter-American Development Bank
IDBG	Inter-American Development Bank Group
IIC	Inter-American Investment Corporation
INE	Infrastructure and Environment Sector
LAC	Latin America and the Caribbean
MDB	Multilateral development bank
MIF	Multilateral Investment Fund
NSG	Non-sovereign-guaranteed
OVE	Office of Evaluation and Oversight
PPI	Private Participation in Infrastructure database
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-private partnership
SCF	Structured and Corporate Finance Department
SG	Sovereign-guaranteed
TC	Technical cooperation

I. CONTEXT

1.1 **This document describes the approach that the Office of Evaluation and Oversight (OVE) will take in reviewing the work of the Inter-American Development Bank Group (IDBG) in supporting public-private partnerships (PPPs) in infrastructure.** This evaluation was included in OVE's 2016-17 work program (RE-492-1) at the request of IDB's Board of Executive Directors.

A. Defining PPPs

1.2 **There is no standard definition of PPPs; usually the term is used for infrastructure projects that are delivered through arrangements that fall between pure private and pure public models.** In general, PPPs provide services or deliver assets through public and private sector cooperation. Both literature and practitioners acknowledge a set of elements that are normally present in a PPP (see Box I.1).¹ PPPs are in the middle of a continuum between pure public provision (e.g., through a state-owned enterprise, or a limited private sector role of just providing short-term goods and services in a public procurement process) and pure private provision (e.g., a complete privatization without long-term contracts with the public sector). See Figure I.1 in the Annex.

Box 1.1. Characteristics usually present in PPPs

- Creates a long-term relationship between the public and private sector through contractual arrangements for delivering assets or services.
- Includes transfer of risks to the private sector at different stages of a project (such as designing, financing, constructing or upgrading, and operating and maintaining),^a with the private sector bearing significant risk and management responsibility.
- Typically includes delivery of a determined quantity and/or quality of service by the private entity, which in return receives a charge paid by the government and/or by the user (e.g., toll) collected during the lifetime of the project.^b
- Usually delegates responsibility to the private entity for the construction and the operation and/or maintenance of the infrastructure. At the end of the contract the ownership of the asset is often transferred to the public sector.

^a The method of funding the project, in part from the private sector, sometimes includes complex arrangements among various players (COM 2004).

^b In the case of power generation, the purchase and/or price of the provided energy is often guaranteed through a long-term contract (e.g., a power purchase agreement).

1.3 **The supply of public infrastructure has not kept up with the increasing demand, and the PPP delivery model can help overcome some traditional problems associated with public provision.** First, the public sector's budget constraints often limit the capacity to commit capital to long-term and risky projects. Second, the absence of long-term contracts with service quality standards can result in substandard work or a construction method that entails much higher operations and maintenance costs. Third, delivery of public infrastructure programs is often affected by project identification and prioritization

¹ See, as examples, Engel, Fischer, and Galetovic (2014) and COM (2004).

difficulties, low-quality planning and slow permit and procurement processes. 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. With the right conditions, the involvement of a private partner, under a proper incentive framework, can avoid some of these issues and result in increased and improved provision of infrastructure services.

- 1.4 **Nevertheless, PPPs raise concerns that also need attention.** The possibility of having investments in infrastructure but avoiding the traditional budgetary process (and controls) and immediately visible liabilities on the public sector balance sheets² makes this delivery tool very attractive to governments for political-economy reasons. Yet a recent note by the World Bank (de la Torre and Rudolph, 2015) listed several risks with PPPs, such as inefficient use of other alternatives for delivery and deficient tender awards. PPPs will often also have higher costs of capital than projects that are purely publicly financed. Regardless of the chosen infrastructure delivery tool, infrastructure projects, which are typically large-scale and long-term, also pose a number of risks – such as technical, construction, operating, financial, force majeure, regulatory/political, project default, or environmental and social risks (OECD/ITF 2008). PPPs are not immune to these issues, and thus contract design and risk allocation are crucial for achieving the expected benefits.³

B. Infrastructure PPPs in LAC

- 1.5 **Since the late 1980s, total infrastructure investment in Latin America and the Caribbean (LAC) has been only 2-3% of GDP, creating a significant infrastructure gap⁴ in the region.** Studies indicate that investment of around 5% of GDP, sustained over time, is needed to close the infrastructure gap (Graph I.1 in Annex). Compared with other regions, the infrastructure gap in LAC is not only about quantity but also quality.⁵ The gap is important because empirical research shows a positive correlation between growth and infrastructure investment in LAC.⁶ Standard & Poor's (2015) estimates that infrastructure spending of 1% of GDP

² With traditional public delivery of infrastructure, public investments add to the general government debt. With a PPP model, the assets are booked either on the government balance sheet (affecting government deficit and debt) or on the private sector side (spreading the impact on government deficits and on debt). One option is to assess who bears the main types of risks of the project (construction risk, availability risk, and demand risk) before assigning the assets and liabilities. PPPs can also create contingent liabilities for governments that are often not captured in national accounts. Some authors, like Engel, suggest that PPP projects should be treated as public projects in the national accounts.

³ The risk matrix has proven to be at the very core of renegotiation demands (see Guasch, Suárez-Alemán, and Trujillo 2015).

⁴ *Infrastructure gap* is an estimate of the difference between supply and demand trends as a result of economic activity. Perotti and Sanchez (2011) estimated this gap for LAC using information about major infrastructure sectors—energy, transport, telecommunications, and water and sanitation (ECLAC 2014). Other studies are IDB 2014, 2013; Bhattacharya, Romani, and Stern 2012; Economic Commission for Latin America and the Caribbean 2011; Kohli and Basil 2010; Fay and Yepes 2003; and Calderón and Servén 2003.

⁵ LAC consistently had the worst-perceived infrastructure quality after Sub-Saharan Africa, according to the World Economic Forum (2006-2015).

⁶ For example, Calderón and Servén (2010) found that the increase in the infrastructure stock between the five-year periods 1991–95 and 2001–05 contributed 1.1% a year to economic growth in LAC.

would within three years increase the size of the economy by 2.5% in Brazil, 1.8% in Argentina, and 1.3% in Mexico.

- 1.6 **The role of the public sector is crucial in policy, planning, and regulation, but the provision, financing, and management of infrastructure can come from either the public or private sector —or both.** Infrastructure often requires strong public planning and supervision, since it generates both positive and negative externalities (network effects and environmental and social externalities) and needs to comply with designated quality standards. But public investments alone will not suffice to close the infrastructure gap.⁷
- 1.7 **Public investment in infrastructure has been higher than private investment in LAC, with both public and private slowly increasing in the last decade.** According to the Private Participation in Infrastructure (PPI) database,⁸ the LAC region led in both number of projects and investments in the developing world from 1990 to 2015, accounting for around 40% of all private investment in infrastructure in emerging markets. A first wave of private investment in the LAC region occurred during the 1990s, following fiscal crises in many countries at the end of the 1980s and a redefinition of the roles of the public and private sectors (Graph I.2 in the Annex). This wave decreased by the end of the 1990s, with higher risk perceptions in a context of a new crisis in the region and problems in the delivery of the expected outcomes.⁹ A second wave of private participation started around the beginning of the 2000s, when private participation represented only around 0.5% of GDP in LAC. Private investments then grew to around 1.5% on average by the end of the decade, and by the first half of 2015, four of the world's top five developing countries receiving private investment for infrastructure were in LAC: Colombia, Chile, Mexico, and Brazil. However, this trend could be affected by challenges ahead in a context of regulatory and institutional uncertainties, difficulty in project implementation and slowdown in regional growth.
- 1.8 **A supportive enabling environment is important for PPPs, giving room for private participation and ensuring efficient and effective delivery of infrastructure.** The regulatory framework and organizational and institutional arrangements are key to ensuring the adequate provision of sufficient and high-quality infrastructure services with positive impacts (Serebrisky et al. 2015). In LAC, although further improvements are needed, the overall environment for PPPs (as reflected in Infrascope data) has improved since 2012 because of advancements in PPP readiness, new management agencies, and specialized

⁷ Serebrisky, et al. 2015.

⁸ The Private Participation in Infrastructure (PPI) project database has data on over 6,000 infrastructure projects in 139 low- and middle-income countries. The database is the leading source of PPI trends in the developing world, covering projects in the energy, telecommunications, transport, and water and sewerage sectors. Projects include management or lease contracts, concessions, greenfield projects, and divestitures.

⁹ Between 1990 and 1998, private infrastructure investment grew from US\$14.6 billion to US\$75.6 billion. The most common forms of private participation were privatizations in telecommunications, and energy and water concessions. Deals were often done with relative urgency, which at times undermined improvements of contract terms and the regulatory and supervisory framework needed for good results. This led to frequent renegotiations and a sense of lack of transparency that reduced public support for this type of investment.

experience in implementation. These regulatory and institutional improvements have been boosted by increasing operational maturity as more LAC countries have gained experience with the PPP model (see Table I.1 in the Annex). But the enabling environment differs among countries in the region.

- 1.9 **Multilateral development banks (MDBs) have given increasing attention to PPPs, as reflected in their strategic documents, specific actions, and support.** Stand-alone PPP strategies or PPP sections in sectoral/corporate strategies are now common, with increasing focus on enabling environments. Many new project preparation facilities for infrastructure interventions (including PPPs) have been created.¹⁰ The Asian Development Bank, African Development Bank, and IDB stress the importance of upstream as well as downstream support. The World Bank Group provides support for the enabling environment through its public side, has a dedicated advisory business line for PPP project preparation, finances PPPs through its private side, and provides guarantees through the Multilateral Investment Guarantee Agency. This contrasts with the approach by European Bank for Reconstruction and Development, which historically focused mostly on financing downstream transactions. The European Investment Bank is different again, in that the bulk of its transactions are in EU countries, which have fairly well-developed institutional frameworks, and thus it focuses on financing and stimulating peer learning among its member countries.¹¹ Despite the strategic relevance of MDB-support to PPPs, its magnitude is difficult to judge because of the lack of a consistent PPP definition or a system capturing the share of operational activities devoted to PPPs.

C. IDBG Support for PPPs

- 1.10 **Several IDBG strategic documents mention the importance of PPPs for increasing access to infrastructure and discuss possible roles for IDBG in promoting such access.** Previous OVE assessments have noted that in the past IDB was not well structured to support PPPs given the fragmented knowledge and efforts.¹² The 2013 IDB Infrastructure Strategy calls for the adoption of a new vision for the infrastructure sector of country clients.¹³ The 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

¹⁰ The Global Infrastructure Facility at the World Bank Group, the Asia Pacific Project Preparation Facility at the Asian Development Bank, Infracred at the Inter-American Development Bank, the Programme for Infrastructure Development in Africa at the African Development Bank Group, and the Infrastructure Project Preparation Facility at the European Bank for Reconstruction and Development.

¹¹ In implementing these strategic plans, some MDBs have come up with specific roadmaps and matrix management structures. In particular, the Asian Development Bank undertook an evaluation of PPPs that has triggered a rethinking of the institution's approach to PPPs, and it has moved to make the process more strategic and less opportunistic.

¹² See Mid-term Evaluation of IDB-9: Commitments Assessment of IDB-9's Private Sector Development Framework Background Paper (2013).

¹³ The new vision rests on the pillars of "environmental, social and fiscal sustainability and it recognizes the need to expand multisector approaches that allow synergies between infrastructure sectors to be exploited" (GN-2710-5). The strategy followed IDB's Ninth General Capital Increase, which explicitly stated that "infrastructure for competitiveness and social welfare" would be one of the IDB's five priorities, aimed at reducing poverty and inequality and promoting sustainable growth.

participation in PPPs.”¹⁴ To increase private investment, the strategy underlines IDB’s role in supporting governments and private and public financial institutions in improving technical capacity, regulations, and financial innovation.¹⁵ Sovereign-guaranteed (SG) and non-sovereign guaranteed (NSG) departments are expected to coordinate their work throughout all stages of the project cycle, particularly regarding improving institutional frameworks, developing financial instruments to increase investments in PPPs, structuring and supervising PPPs, and evaluating PPP implementation. They are expected to focus their PPP efforts on C and D countries and subnational levels of government. Infrastructure is also a strategic priority in IIC’s business plan, which calls for 14% more approvals in infrastructure in 2019 relative to the 2010-2014 average. MIF’s strategy includes the use of grants to support regulatory, legal, and institutional reforms to increase private sector participation in infrastructure.¹⁶ Two other IDB sector strategy papers¹⁷ (on climate change and institutions)¹⁸ also include PPPs as an area for IDB engagement, as well as several IDB sector frameworks¹⁹ (e.g. water and sanitation, energy, transportation, fiscal policy and management).²⁰

1.11 **OVE drew on IDBG strategic documents to develop the preliminary intervention logic of IDBG’s support (Figure I.1).** The expected indirect impacts of IDBG work in PPPs are mainly to promote inclusive sustainable growth. This would be accomplished by helping to reduce infrastructure gaps (quantitative and qualitative) in the region. Expected effects attributable to IDBG support—those in which the Bank Group has more direct influence—include strengthened country capacity for PPP management, regulatory improvements, and better projects in terms of value, structuring, implementation, and risk mitigation, for example. To accomplish this, IDBG contributed a set of activities, institutional arrangements, outputs and inputs, not always formally established, which OVE intends to explore and compare for extracting lessons and recommendations.

¹⁴ To reflect this priority, the strategy included in its results framework a target of 15 projects with PPP components for the period 2013-2015.

¹⁵ “IDB is committed to continuing and deepening actions to facilitate the structuring of more and better PPPs, aimed at enhancing the capacity and quality of regional infrastructure” (GN-2710-5).

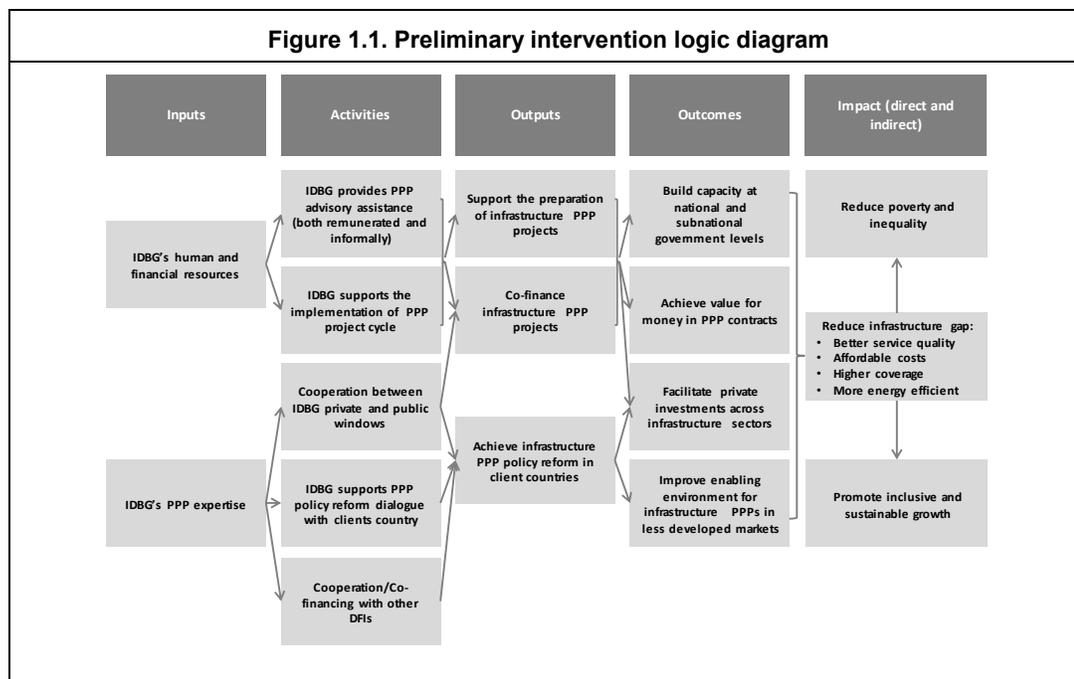
¹⁶ Later MIF also launched several initiatives like the 2006 program or “cluster” of projects to promote PPP in infrastructure, the 2010 PPP agenda for the inclusion of the concept at national and subnational levels of government, and, more recently, several other knowledge and dissemination products (such as Infrascopes and PPP Americas). MIF new strategy includes PPPs as a tool to be used to support innovative solutions for urban populations.

¹⁷ Sector strategies are broad expressions of Bank operational and knowledge priorities, organized according to institutional mandates. Strategies define clear priorities for Bank action and establish goals. (GN-2670-1: Strategies, Policies, Sector Framework and Guidelines at the IDB, revised version).

¹⁸ Climate Change Adaptation and Mitigation (GN-2609-1), and Institutions for Growth and Social Welfare (GN-2587-2).

¹⁹ A sector framework is narrower in scope than a strategy and seeks to articulate concretely, in the context of a specific sector, the aspirational statements and directives that characterize a strategy. Thus, a number of sector frameworks correspond to a single sector strategy. (GN-2670-1: Strategies, Policies, Sector Framework and Guidelines at the IDB. Revised version)

²⁰ Water and Sanitation (GN-2781-3), Energy (GN-2830-3), Transportation (GN-2440-3), Fiscal Policy and Management (GN-2831-3)



II. EVALUATION SCOPE

2.1 **The evaluation will provide a broad overview of IDBG's PPP-related activities during 2006-2015 and assess the effectiveness of a sample of up to 16 energy and transport PPP projects in six countries in-depth.** Because of the nature of infrastructure projects, the evaluation period must be long enough to ensure that the study

Box 2.1. PPP working definition
<p>IDBG does not have an internal definition of PPPs. OVE defines PPPs as a long-term contractual arrangement between a public entity (or authority) and a private entity for providing a public asset or service, in which the private party bears significant risk and management responsibility.</p> <p>For the purposes of this evaluation, what some countries term as “concessions” will be included, if it fits the conditions of a PPP as described here.</p>

includes examples of all PPP stages, including mature projects. This evaluation focuses on more recent PPP models and frameworks, so the evaluation period excludes IDBG activities during the initial wave of private involvement in infrastructure in the region, such as the privatizations in the 1990s and the first wave of concessions. However, previous OVE evaluations that have analyzed PPPs²¹ and provided relevant findings will inform this evaluation, and lessons or other contextual background from earlier IDBG work on PPPs may be referenced as relevant. Given time and resource constraints, the overview will not seek to measure the outcomes and impacts of all activities over the decade; instead this

²¹ For example, Evaluation of Special Programs Financed by Ordinary Capital (2014); Assessment of IDB-9's Private Sector Development Framework (2013); Second Independent Evaluation: Multilateral Investment Fund (2013); Climate Change at the IDB: Building Resilience and Reducing Emissions (2014); Annual Report, Background Paper: IDB's experience with Policy-Based Lending (2015).

will be done through an in-depth analysis of a purposefully selected sample of up to 16 energy and transport PPPs in six countries.

- 2.2 **PPP support can be broadly categorized into three types: support to strengthen enabling environments, PPP project preparation, and PPP financing and implementation.** First, “upstream” activities—policy reforms, capacity building, and institutional strengthening—aim to assess and strengthen the enabling environment for PPPs by improving the legal and regulatory framework and the business environment for PPPs. Second, PPP project preparation aims to help the public sector with the initial stages of the project cycle; this support includes activities for project identification; feasibility studies; definition of procurement strategy (e.g., bid/auction); environmental, social, and governance (ESG) assessments; and design of PPP contracts. Third, PPP financing and implementation supports the final PPP project cycle stages with legal, technical, market, environmental, and social due diligence; providing finance, financial structuring and closing; supervision and monitoring during construction and operations; and dealing with any PPP implementation issues. In its portfolio overview, the evaluation will explore broadly what work IDBG has done in these three areas. In the in-depth case studies, OVE will primarily focus on the third type of support (i.e. PPP financing and implementation support), but to the extent that such direct project financing and implementation support was preceded or accompanied by IDBG work related to project preparation or strengthening the enabling environment for PPPs, this work will also be evaluated.
- 2.3 **The evaluation seeks to provide an overview of IDBG’s work on infrastructure PPPs over the past decade and to draw lessons from the in-depth analysis of a sample of IDBG financed PPP projects, as well as from the experience of other MDBs, so as to help inform IDBG’s strategic orientation in this area.** For this, the evaluation will also identify success factors for infrastructure PPPs and will review the work of other MDBs.
- A. IDBG portfolio related to PPPs**
- 2.4 **Given the scope of the evaluation, OVE assembled a preliminary portfolio consisting of all IDBG activities related to PPPs.** Since PPP projects are not tagged as such in IDBG’s databases, OVE had to define an approach for identifying these projects. OVE searched a database containing all IDBG operations for specific keywords²² to identify a preliminary portfolio of 461 operations. OVE then cross-checked this list with external databases such as PPI and ProjectWare. Next, OVE conducted a cursory project document review by applying the PPP working definition against the list of operations, and discussed the list with management, reducing it to 161 operations for the period of the analysis (2006-2015). The relevant portfolio will be further refined during the evaluation on the basis of consultations with internal stakeholders and data from internal and external databases.

²²

The keywords were PPP, APP, public private, private sector participation, design, maintenance, concession, construction, and operate.

- 2.5 **The preliminary portfolio includes PPP-related activities carried out by different institutional windows of the IDBG.** On the NSG side, SCF provided investment loans and guarantees to specific, typically larger projects, whereas the IIC financed smaller investments. MIF provided mostly grants and technical cooperation (TC) for project preparation, capacity building or strengthening the enabling environment for PPPs. On the SG side, INE mostly used policy-based loans that included PPPs as policy criteria.
- 2.6 **PPP work includes 63 operations for financing and implementing, 81 operations for the enabling environment, and 17 operations for project preparation.** IDBG loans and guarantees for PPP financing amount to almost US\$6 billion, compared to US\$2.4 billion in loans and grants for improving the enabling environment, and over US\$200 million loans and grants used for the public sector's preparation of PPPs. IDBG's resources (in the form of loans, grants, and guarantees) related to infrastructure PPP projects were mostly provided to Brazil (almost US\$2 billion), followed by Peru (US\$1.6 billion) and Uruguay (over US\$900 million). In terms of project financing, of the total US\$6 billion US\$5.5 billion were in the form of IDBG loans, approximately 1.5% of the total PPP investments in the region during that time. (These numbers are subject to change following more in-depth review by OVE.)
- 2.7 **The IDBG has been most active in the energy and transport sectors: 44% of the amounts approved for infrastructure PPP projects were in the transport sector, and 33% in the energy sector.** In the energy sector, the IDBG has supported projects in generation, transmission, and distribution. In the transport sector, the IDBG has worked mainly on mass transit systems, airports, ports, and toll roads/highways. The average amount approved for transport projects was almost double that of energy projects. IDBG financing for PPPs in transport also represented a bigger share of the total transport sector in LAC, according to PPIAF (about 2% of total PPP investment in transport). More recently, however, PPPs have also become more prevalent in other sectors such as water and health and education.

B. Evaluation questions and methodology

- 2.8 The evaluation will present what IDB has done in terms of PPPs, how it was organized for delivering its support, how other DFIs compare in terms of organization and activities and which are main lessons at this level. Additionally, for selected countries and sectors the evaluation will focus to answer which were main results and lessons of the interventions.

1. Evaluation questions on activities and organization

- a. What has IDBG done to support infrastructure PPPs over the past decade and how has this support evolved over time?
- b. How do IDBG's organizational structures, processes, and incentives compare with other development finance institutions and do they enable a coordinated and effective delivery of targeted PPP activities?
- c. What lessons emerge from the portfolio review and experience of other DFIs on critical success factors for PPPs?

2. Evaluation questions on selected case study operations

- a. To what extent have selected PPP related operations addressed the critical challenges in PPP markets, and what effect have these operations had on the PPP market?
- b. Has the IDBG used appropriate instruments to achieve PPP-related objectives?
- c. To what extent have selected PPPs been consistent and coordinated with the IDBG's strategy and with policies promoted in the country?
- d. To what extent have project design and structure been able to respond to issues arising during project implementation and allowed for efficient project delivery?
- e. What has been the value added of IDBG with respect to the selected PPP operations?
- f. To what extent have selected IDBG operations succeeded in strengthening the capacity of national and subnational governments to handle PPP operations?
- g. Have selected operations succeeded in achieving their objectives, in particular increasing access to infrastructure and/or improve quality and/or cost of services?
- h. To what extent have selected IDBG operations succeeded in addressing key environmental and social issues?
- i. Have selected IDBG PPP operations been sustainable?

2.9 To answer the above questions OVE will use the following evaluation building blocks:

- Portfolio review of IDBG activities in support of PPPs between 2006 and 2015.
- Review of organizational, processes and incentive structures for delivery of PPP support in IDBG.
- Review of other DFIs' approaches to PPP support.
- In-depth case studies.

2.10 **The broad portfolio review will provide insight into what types of activities and instruments were used for IDBG support.** This broad overview aims to better describe IDBG activities in PPPs by looking at systemic issues and lessons arising from available project evaluations and supervision reports.²³ Depending on the quality and availability of information in IDBG systems, OVE will review the information to identify cross-cutting lessons and other efficiency-related issues, such as cost overruns and delays. These activities will be complemented by internal interviews with relevant stakeholders. The resulting description of activities and organization will be compared with the experience of other DFIs. In sum, OVE will draw on available market information (from external databases and reports), interviews (including structured, internal, and external), and internal documents (e.g., evaluations and supervision reports).

2.11 **The review of other DFI's approach to PPP support will provide a better understanding of possible different strategies and operational approaches.** For these DFIs, the analysis will focus in three main areas: (i) strategic approach to

²³

For all PPP investment projects, OVE will identify whether they have supervision or evaluation reports: Annual Supervision Report (ASR), Project Supervision Report (PSR), Expanded [Annual/Project] Supervision Report (XASR, XPSR or XSR), and Project Completion Report (PCR).

working on PPPs; (ii) internal organization, specifically whether there is a dedicated PPP unit and how coordination works across the organization; and (iii) operational approach. The goal is to identify best practices that could help IDBG and other DFIs, to learn how DFIs deal with the latest trends in developing PPPs (e.g., social infrastructure vs network infrastructure), and to identify main challenges and factors of success. This review will also cover how other DFIs deal with areas in which IDB has less experience or that are at the frontier of the development of PPPs (such as projects in social sectors).

2.12 **DFIs will be selected using the following criteria:**

- high infrastructure PPP volume;
- LAC experience or similar regional focus;
- sustainability and environmental and social expertise; and
- work in both nascent and developed PPP markets.

2.13 **OVE will use 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 are sufficiently mature to have results but still relatively recent and thus more relevant for today's operations. The studies will focus on specific PPP projects, but will also address relevant PPP activities (such as TC or Loans) aiming to improve the enabling environment and for project preparation. The aim of the case studies is to provide lessons for future PPP projects.

2.14 **The selection criteria for the case studies are intended to provide a diverse pool of experiences from which OVE can collect relevant project-level lessons.** Using the selection criteria (summarized in Box II.2), OVE identified 16 projects from the broad portfolio to be analyzed through six country case studies. The sample includes projects in roads, urban transport, wind, and hydro and thus is broadly representative of the IDBG's portfolio during the 2009-2012 period. Over two-thirds of energy and transport projects approved during the period were in those four areas.²⁴

Box 2.2. Selection criteria for case studies	
(i)	Period 2009-2012: OVE will look at IDBG support approved during the four years in the middle of the evaluation period (ensuring that those activities were approved not too long ago but can still provide sufficient operational experience).
(ii)	Sector and type of infrastructure projects: OVE will look specifically at projects in the transport and energy sectors (the two main sectors supported by IDBG in the period), focusing on roads, urban transport, wind and hydro projects, which were the main types of infrastructure supported.
(iii)	Country variation: OVE will look at projects in countries with different levels of development in terms of their PPP enabling environment and income levels, and will include at least one country from each IDB country department.
(iv)	Synergies with CPE work: OVE will seek synergies with ongoing or planned CPEs.

2.15 **To answer evaluation questions for the cases, OVE will focus on specific analysis of the PPP projects:**

²⁴ IDBG supported also other types of energy and transport operations, such as airports, rail systems, geothermal and solar power, but with significantly lower approval volumes. The percentage excludes oil and gas projects.

- a. *Projects' context and description*, including the enabling environment (e.g., legal framework and regulations, institutional capacities) and the origins and designs of the projects.
 - b. *Success/failure factors* specific to each project but relevant for other projects, including general issues for PPPs (e.g., property rights, contracts, concessionaire issues, revenues) and specific issues by type of project (e.g., urban transport, toll roads, wind).
 - c. *Tradeoffs and risks*, including what decisions were taken (e.g., type of PPP contract), what risks were identified, and what mitigation measures were put in place.
 - d. *Role and value added of the IDBG*, including role in improving the enabling environment, assistance in project preparation and implementation, and financing.
 - e. *Lessons* that can be extracted from these points.
- 2.16 **OVE will also carry out an assessment of IDBG's work on the enabling environment for PPPs in Colombia.** To complement the cases mentioned above, which will focus on specific projects and assess IDBG's activities to improve the enabling environment as relevant for these projects, OVE will also conduct a case study on Colombia with a specific focus on IDBG's work to improve the enabling environment. Colombia was chosen since it has significant IDBG work to improve the enabling environment over a long period of time (since 2007), but is not covered by the case studies referred to above.

III. TEAM AND TIMELINE

- 3.1 The evaluation team includes Roni Szwedzki and Roland Michelitsch (co-team leaders), Ulrike Haarsager, Jose Ignacio Sembler, Maria Cabrera Escalante, Rocio Funes, Juan Felipe Murcia, Raphael Seiwald, Patricia Vargas, Patricia Sadeghi and Jose Carbajo (external expert consultant).
- 3.2 The evaluation will be done in three main phases: kick-off and portfolio review, data gathering and analysis, and synthesis and report preparation. The timeline, activity, and methods per phase and the main outputs are described in Table III.1.

Table 3.1. Timeline with activities

Phase	1. Kick off and portfolio review	2. Data gathering and analysis	3. Synthesis and report preparation
Timing	6 weeks	14 weeks	6 weeks
Activities	<ul style="list-style-type: none"> Review IDBG's sector frameworks and country strategies and align on the intervention logic for the IDBG's work in infrastructure PPPs Refine methodology and approach, including templates for case studies Develop research and field visits plan Conduct literature review on challenges and factors of success for PPPs in transport and energy Review the portfolio, including information from external sources (e.g., PPIAF, ProjectWare, etc.) and project documents (e.g., Board proposals, legal agreements, supervision reports, etc.) 	<ul style="list-style-type: none"> Identify the case studies and MDBs and align on the specific assessments to carry on Develop 4-6 case studies to distill success factors across the enabling environment and PPP project cycle. Selection will be based on pre identified criteria Review other MBBs practices (strategic, organizational, and operational approaches) to extract best practices in working in infrastructure PPS Conduct structured interviews with IDBG staff to analyze the organizational structure, processes, and incentives 	<ul style="list-style-type: none"> Synthesize findings and share among stakeholders for feedback Outline report to align on final structure and draft the final report Refine final report and recommendations
Methods	<ul style="list-style-type: none"> Kick off meeting Desk and literature review Interviews with management Selected interviews to private sector stakeholders 	<ul style="list-style-type: none"> Desk review for case studies and MDB practices (e.g., evaluations, annual reports, strategies, etc.) Field visits to develop the case studies Interviews in person (or on the phone) with MDBs Interviews and workshops with IDBG staff 	<ul style="list-style-type: none"> Draft report Final report

3.3 The expected timeline for the evaluation is as follows:

Activity	Date
1. Approach Paper to Board	August 2016
2. Draft to Management	December 2016
3. Final evaluation to Board	January 2017
4. Board discussion	February 2017

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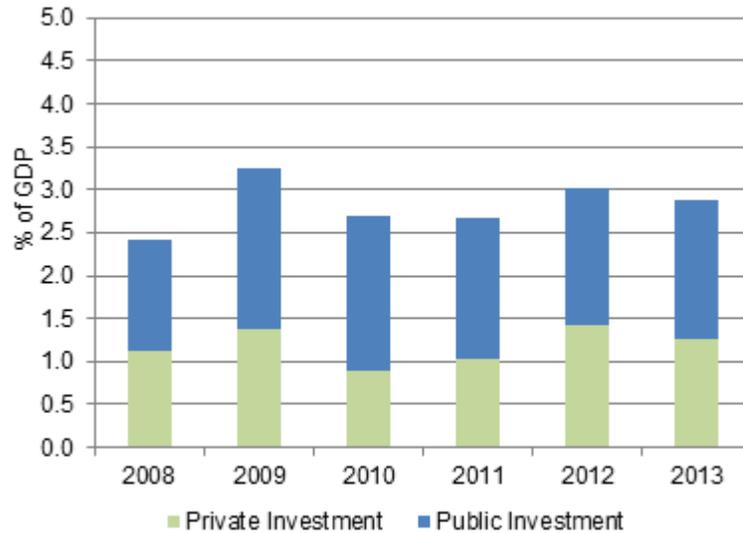
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ADDITIONAL GRAPHS, FIGURES, AND TABLES

Public investment in infrastructure has consistently surpassed private investment

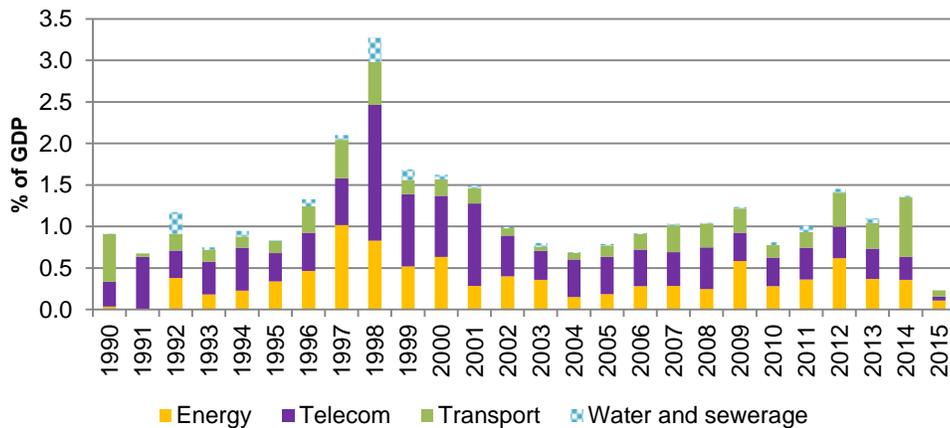
Graph 1. Investment in infrastructure (2008 - 2013)



Source: IDBG, CAF and ECLAC.

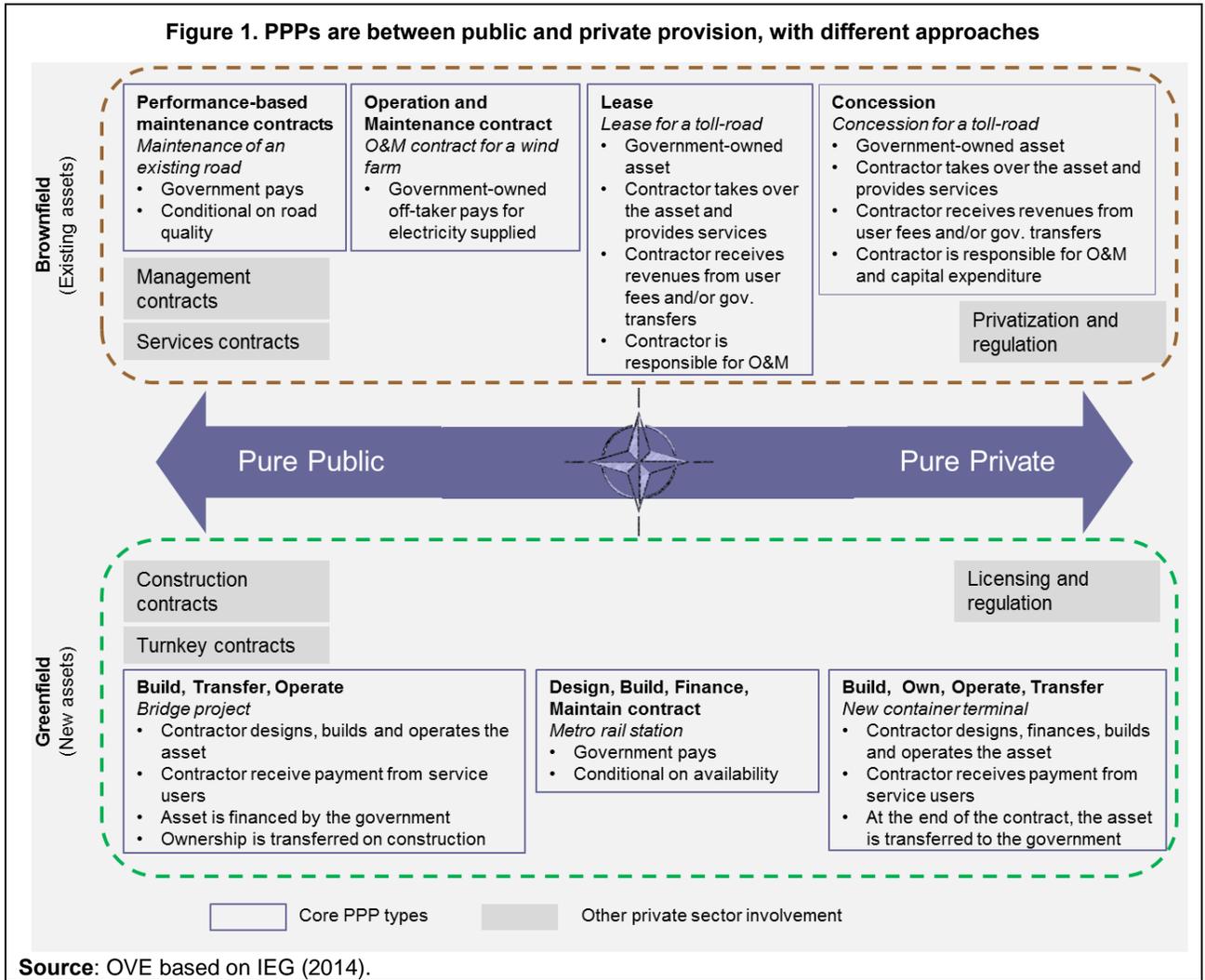
Private participation in infrastructure in LAC peaked in the 1990s during the privatization wave in the region. Since 2005-2006, the new investment cycle has been led by the energy sector

Graph 2. Private investment in infrastructure by sector (1990-2015)



Note: Data for 2015 is only for the first half of the year.

Source: PPI database.



Source: OVE based on IEG (2014).

The PPP enabling environment in LAC has improved during the last decade; Chile, Brazil, and Peru lead the ranking, and Uruguay, Guatemala and Mexico have improved the most

Table 1. Variations on PPPs' enabling environment (2009-2014)

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

Source: Infrascopes (2014). 0 = worst, 100 = best.