

Management of Fiscal and Financial Risks Generated by PPPs

Conceptual Issues and Country Experiences

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Compilers and Editors

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ABSTRACT*

This paper discusses the main issues concerning sovereign fiscal and financial risks from public–private partnerships (PPPs) with a focus on contingent liabilities (CLs). It is based on the presentations and discussions that took place during the XI Annual Meeting of the Group of Latin American and the Caribbean Debt Management Specialists (LAC Debt Group), held in Barbados in August 2015. The main issues discussed include PPP risks assessment, institutional framework for PPP risk management, and accounting and reporting of CLs generated by PPPs. Six country cases (Chile, Colombia, Costa Rica, Honduras, Suriname, and Turkey) are presented to illustrate experiences with different degrees of development regarding the management of risks and CLs related to PPPs. The document concludes that PPP risk management should encompass the whole lifecycle of a PPP project, risks need to be identified and CLs must be estimated and monitored, and the institutional capacity of governments to evaluate and manage PPP risks plays a central role in the successful development of PPP contracts. Although institutional capacities in this regard have improved in recent years, estimations of CLs involved in PPPs are not regularly performed, and there is still room for improvement on the assessment, measurement, registration, budgeting, and reporting of risks and CLs related to PPPs.

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Keywords: contingent liabilities, public–private partnerships (PPPs), PPP risk.

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LIST OF ACRONYMS

CLs	Contingent liabilities
DAA	Debt assumption agreement
DMO	Debt management office
DNP	National Planning Department, Colombia (Dirección Nacional de Planeación)
DSA	Debt sustainability analysis
EAP	East Asia and Pacific
ECA	Europe and Central Asia
FCEE	Contingency Fund for State Entities, Colombia (Fondo de Contingencia para Entidades Estatales)
GDP	Gross Domestic Product
HPC	High Planning Council, Turkey
IDB	Inter-American Development Bank
IMF	International Monetary Fund
IPSASB	International Public Sector Accounting Standards Board
LAC	Latin America and the Caribbean
MDB	Multilateral development bank
MENA	Middle East and North Africa
MHCP	Ministry of Finance and Public Credit, Colombia (Ministerio de Hacienda y Crédito Público)
MIDEPLAN	Ministry of Planning, Costa Rica (Ministerio de Planificación)
MOF	Ministry of Finance
MRGs	Minimum revenue guarantees
MTBF	Medium-Term Budget Framework

MTDS	Medium-Term Debt Strategy
MTFF	Medium-Term Fiscal Framework
MTPF	Medium-Term Policy Framework
PPI	Private participation in infrastructure
PPP	Public–private partnership
SALM	Sovereign Asset and Liabilities Management
SAR	South Asia
SOEs	State-owned enterprises
UCF	Fiscal Contingencies Unit, Honduras (Unidad de Contingencias Fiscales)

INTRODUCTION

This paper discusses the main concepts regarding the management of fiscal and financial risks related to public–private partnerships (PPPs), with a focus on contingent liabilities (CLs). It is based on international experiences within and outside Latin America and the Caribbean (LAC). The paper is mainly based on the presentations and discussions that took place during the XI Annual Meeting of the Group of Latin American and the Caribbean Debt Management Specialists (LAC Debt Group), held in Barbados in August 2015.¹

In the past few years, PPPs have been growing and gaining scope in LAC as a means of financing infrastructure development and improving access to basic services. The increasing interest in PPPs is mainly due to the increasing fiscal and financial constraints that governments in LAC countries are facing, along with a growing need for investment in infrastructure. Infrastructure financing needs in the LAC region exceed the available public resources, leading to a financing gap of around US\$130 billion per year if the productivity gap is to be closed (Figure 1). Therefore, it is crucial to find alternative ways to finance infrastructure. PPPs offer an alternative way of financing infrastructure development by facilitating the mobilization of private capital for development.

PPPs can generate appropriate incentives, but they also result in direct and CLs for the public sector. These liabilities exist regardless of the quality of the regulatory framework, the institutional capacity, or the investment environment.

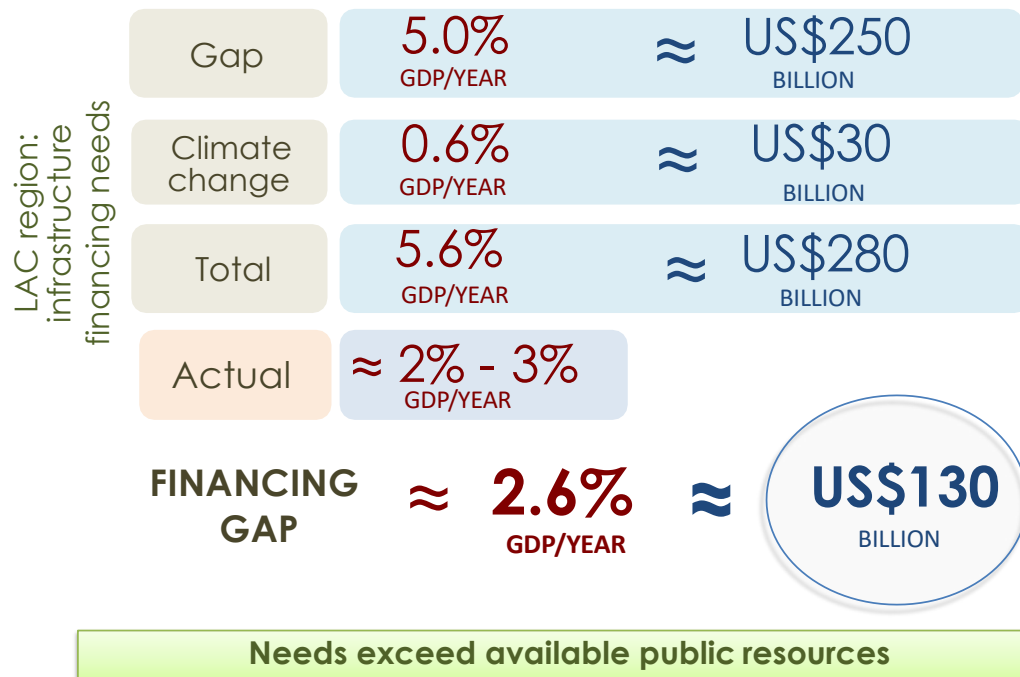
PPPs tend to make the fiscal and financial statements of governments less clear. This disadvantage should be minimized through the identification and proper management of generated CLs.² Although institutional capacities for the management of sovereign risks and CLs have improved in the region in recent years, there is still plenty of room for improvement on the assessment, measurement, and management of financial risks and CLs associated with PPPs.

This paper summarizes the ideas and concepts presented at the XI Annual Meeting of the LAC Debt Group. Some additional theoretical concepts and experiences not presented in the meeting will also be included. The ultimate goal is to provide those interested and those engaged in the management of fiscal and financial risks from PPPs with an overview of the main issues and ways to address them. Specifically, our interest is to help practitioners and policy makers to manage a set of issues that are becoming increasingly relevant in public sector financial structures.

¹ The Annual Meeting of the LAC Debt Group is the principal venue for the exchange of experiences and knowledge on public debt management practices in the LAC region. During the XI Annual Meeting, four sessions were devoted to discussing the importance of fiscal and financial risk management of PPPs in the region. The list of presenters included: G. Andrade, E. Demaestri, R. Romero Flores, V. González, S. Gooptu, C. Moskovits, A. Quevedo Caro, J. C. Quirós, C. Soentik, and L. Ülgentürk. The agenda, list of presenters, and presentation topics, including internet links can be found in the Annex.

² PPPs could entail other drawbacks, such as distorted market signals. Transparency helps in this regard.

FIGURE 1. INFRASTRUCTURE FINANCING GAP IN LATIN AMERICA AND THE CARIBBEAN



Source: Andrade (2015), based on IDB (2013).

The paper is organized as follows: Section 2 identifies the main conceptual issues regarding the management of fiscal and financial risks from PPPs. Section 3 presents evidence from regional experiences. Section 4 presents two leading case studies, Turkey

and Colombia, and mentions a few other experiences from LAC countries. Section 5 discusses the use of guarantee instruments for mitigating some risks from PPPs. Section 6 concludes.

MANAGEMENT OF PPPs FISCAL AND FINANCIAL RISKS: CONCEPTUAL ISSUES³

2.1. Definitions

Before identifying and elaborating on the main conceptual issues related to the management of fiscal and financial risks related to PPPs, it is important to define the following terms:

- a. **Public–private partnership.** PPP is a procurement method for public infrastructure development in which risks and benefits are shared between the public sector and private partners. Specific risks may be assigned to the partner, whether public or private, that is best equipped to deal with them. It falls on governments to allocate these risks as efficiently as possible and manage—and eventually charge for—them appropriately. Among other issues, PPPs are used to ensure better and more efficient service delivery in a country.
- b. **Risk.** Broadly defined, a risk is a deviation from an expected trajectory. Fiscal and financial risks are deviations of fiscal and financial outcomes from an initial situation or from originally expected projections. Risks associated with PPPs involve any condition that may change the expected results of a PPP project in any of its development stages. From the public partner’s perspective, those risks are usually associated with CLs, since direct public commitments in PPPs are easier to foresee and monitor.
- c. **Contingent liabilities.** CLs are potential liabilities that may occur as a result of uncertain future events that are typically out of the State’s control. CLs may be categorized as explicit

or implicit. While explicit CLs are specifically recognized in legislation or contracts, implicit CLs are unwritten government obligations that mainly reflect public expectations or pressure from interest groups for the government to intervene. Explicit CLs are more easily defined and weighed, given specific language included in legislation or contracts. Implicit CLs are more difficult to estimate, prepare for, and address and are generally costlier.

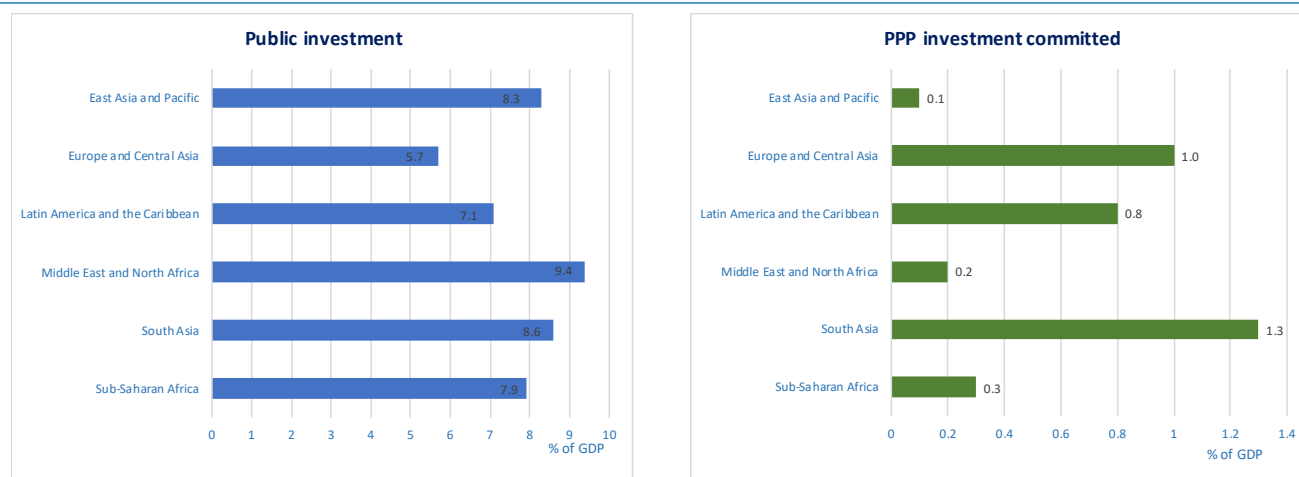
Proper analysis of the main conceptual issues related to the management of fiscal and financial risks from PPPs must consider: the relevance and classification of fiscal risks, risk assessment, and the institutional framework for PPPs risk management, as well as risk management itself (including estimation, accounting, reporting and financial management of CLs).

2.2. Fiscal Risks Generated by PPPs

In recent years, the need for more investment in public infrastructure in the LAC region has grown more urgent at the same time that fiscal and financial constraints faced by governments are increasing. Thus, there has been a call to find alternative ways to finance infrastructure by mobilizing private capital for

³ The content of this section is mainly based on Gooptu (2015) and Demaestri (2015).

FIGURE 2. TRENDS: PUBLIC INVESTMENT AND PPPS, 2008-14 (AVERAGES BY COUNTRY GROUP)



Source: Andrade (2015), based on IDB (2013).

development. Governments in LAC are increasingly adopting innovative financial engineering tools.

According to World Bank figures (Private Participation in Infrastructure Database (PPI Database)), PPPs are now one of the main financing mechanisms for infrastructure investment in South Asia (SAR) and Europe and Central Asia (ECA) and are steadily increasing in LAC. In SAR, high public investment and PPPs appear to go hand in hand. In ECA, a low rate of public investment is partially offset by high investment commitments from PPPs. At the other end of the spectrum, the East Asia and Pacific (EAP) and Middle East and North Africa (MENA) regions have high rates of public investment but few PPPs (Figure 2).

Although they are a strong and appropriate instrument for development, PPPs tend to make the fiscal and financial statements of governments less accurate and transparent, particularly in countries with federal or decentralized systems of government.⁴ Consequently, policy decisions should reflect the true cost of associated CLs and other risks faced by investors and creditors, and governments should establish consequences for borrowers who engage in risk management practices with less favorable financial terms.

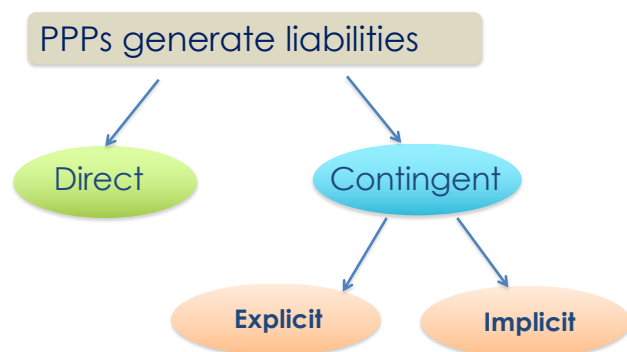
The same risks apply on both sides of the government balance sheet. On the liability side, risks affect direct as well as contingent liabilities. On the asset side, risks may decrease the value of accumulated assets and reduce inflows. Risks often reinforce each other, negatively affecting the government balance sheet in a vicious cycle.

Regardless of the quality of the regulatory framework, institutional capacity, and the investment environment, PPPs can generate good incentives but can also create risks and contingencies for the public sector (Figure 3).

CLs may result when governments shift macroeconomic, regulatory, political, financial, and/or demand risks that are outside the private sector's purview to the public sector through guarantees or other contractual

⁴ National governments target deficits strategically. Thus, subnational governments are often expected to take up a large share of PPPs. Subnational governments are typically only able to pay for infrastructure services through either user fees or taxes, and this limitation is not reduced by entering into a PPP arrangement. Thus, the use of PPPs by different levels of government and the specificities in their financing options should both be considered.

FIGURE 3. GOVERNMENT LIABILITIES GENERATED BY PPPS



Source: Demaestri (2015).

agreements. Whether CLs are classified as explicit or implicit depends on the types of risks they originate from and the characteristics of the PPP contracts. Table 1 presents a list of the main risks associated with PPPs and their related CLs, classified as explicit or implicit.

2.3. PPPs Risks Assessment

Access to information by the public entities in charge of the management of CLs is crucial to estimate and

evaluate risks. Unfortunately, information on CLs is typically limited, particularly at the subnational level. Methodologies for estimating CLs associated with PPPs include parametric and simulation models, relevant experience, and expert opinions, among others. Models normally require more information than what is available. In addition, there are many uncertainties that make it difficult to estimate implicit CLs. Thus, in general only explicit CLs related to PPPs, such as minimum revenue guarantees (MRGs) and other credit guarantees, are estimated.

Fiscal management of PPPs involves three main tasks: (i) assessing the affordability of PPP projects and managing their fiscal commitments; (ii) assessing project feasibility, efficiency, and PPP mechanisms; and (iii) limiting moral hazard⁵ during the PPP

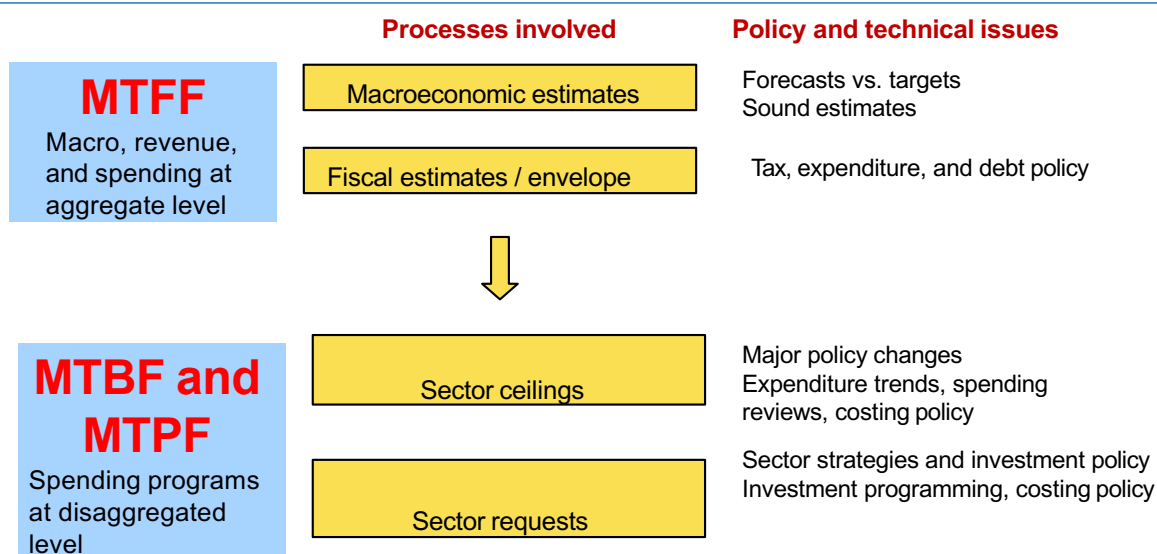
⁵ Moral hazard occurs when one party in a transaction has the opportunity to assume additional risks that negatively affect the other party. The decision is based not on what is considered right, but what provides the greatest benefit. Moral hazard occurs under a type of information asymmetry where the risk-taking party to a transaction knows more about its intentions than the party paying the consequences of the risk. More broadly, moral hazard occurs when the party with more information about its actions or intentions has a tendency or incentive to behave inappropriately from the standpoint of the party with less information.

TABLE 1. RISKS AND CONTINGENT LIABILITIES ASSOCIATED WITH PPPS

Risks	Contingent liabilities (CLs)	Type of CL
Demand/usage	Minimum revenue guarantees	Explicit
Other risk variables (price, exchange rate)	Guarantees on particular risk variables	Explicit
Construction	Geological, archaeological, etc.	Explicit
Technology	Indemnities for the use of high-risk technologies	Explicit
Financing	Debt guarantees or other credit enhancements	Explicit
Termination events	Termination event commitments	Explicit/ implicit
Different interpretation of contract terms	Litigious activities	Explicit
Force majeure (natural disasters, political events)	Force majeure compensation clauses	Explicit/ implicit
Renegotiation	Renegotiation liabilities	Implicit
Contractor default	Residual liabilities	Implicit

Source: Demaestri (2015).

FIGURE 4. MEDIUM-TERM FISCAL FRAMEWORK: LINKAGES WITH BUDGET



Source: Gooptu (2015).

project. To accomplish the first task, public entities must consider the fiscal costs and fiscal risks of each project, and then aggregate the risks to evaluate fiscal stability and debt sustainability. Introducing fiscal rules and following accounting standards and reporting procedures are crucial to the task. Assessing project feasibility and efficiency and analyzing PPP mechanisms require cost-benefit analysis, a comparison of PPP vs. non-PPP procurement and financing (i.e., the public-private comparator), and evaluating the type of PPP to use, including the bankability and involved financial costs and its long-term robustness. Finally, limiting moral hazard requires that debt sustainability analysis (DSA) and the medium-term budget framework (MTBF) include the potential costs to the budget of all PPP contracts. Additionally, full disclosure of budgetary costs of PPP contracts over time, including the obligations borne by the government and state-owned enterprises (SOEs), is required.

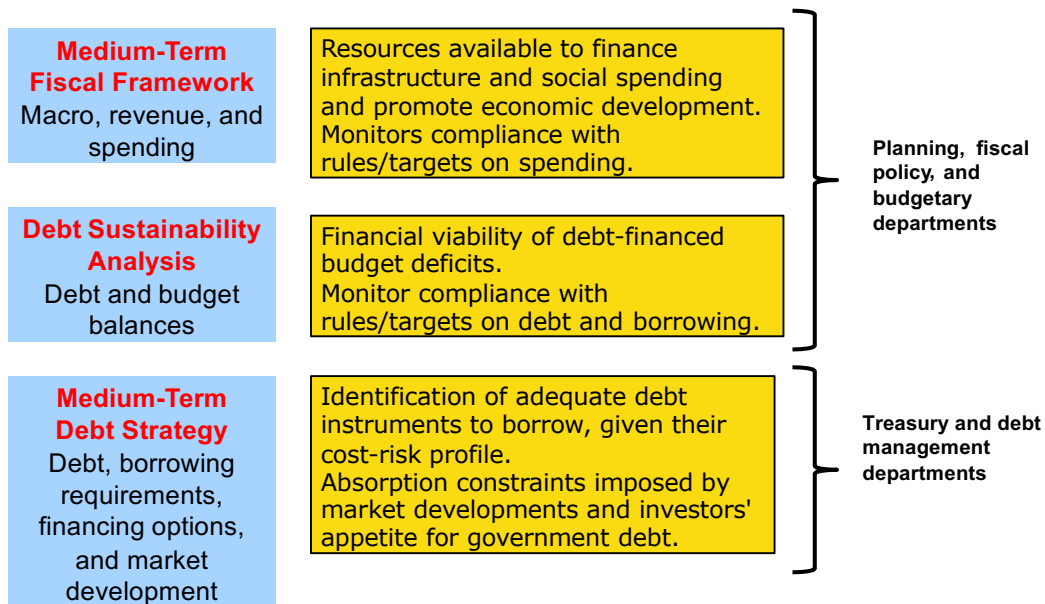
Thus, in addition to assessing the fiscal risks and costs inherent in PPPs, fiscal management must include an efficient evaluation of each PPP project in terms of incentive schemes and risk allocation. An efficient

fiscal management framework must: (i) perform individual cost-benefit analysis; (ii) justify that the PPP instrument is the best way to implement the financing project (PPP vs. non-PPP); and (iii) have a methodology for deciding which type of PPP design is most efficient, especially given that incentives and risk allocation depend on the idiosyncratic characteristic of the investment project. Once the PPP project has been defined and designed, the government must follow up on the dynamic of the PPP project to be aware of and minimize fiscal costs. Fiscal management can be enhanced by executing a long-term robustness analysis, which helps reduce risk and costs.

In practice, CLs generated by PPP contracts are often not fully disclosed or incorporated in medium-term fiscal frameworks (MTFF), which contain the macro, revenue, and expenditure policies for the next several years (Figure 4).

As shown in Figure 4, the MTFF determines the resources available to finance infrastructure and other types of expenditures. The MTFF can also monitor whether rules or targets on spending are met. Similarly, the DSA uses debt and budget balances

FIGURE 5. LINKAGES BETWEEN MTFF, DSA, AND MTDS



Source: Gooptu (2015).

to determine the viability of debt-financed budget deficits and monitor compliance with rules and targets on debt and borrowing. Thus, both instruments define and monitor rules and targets on spending and public debt. Finally, the medium-term debt strategy (MTDS) enables the identification of adequate borrowing instruments, given their cost-risk profile, and signals absorption constraints imposed by market developments (e.g., the existence or non-existence of secondary markets, the primary and secondary market structures, etc.) and investors' appetite for government debt. Figure 5 reflects the ideal linkages between the MTFF, the DSA, and the MTDS.

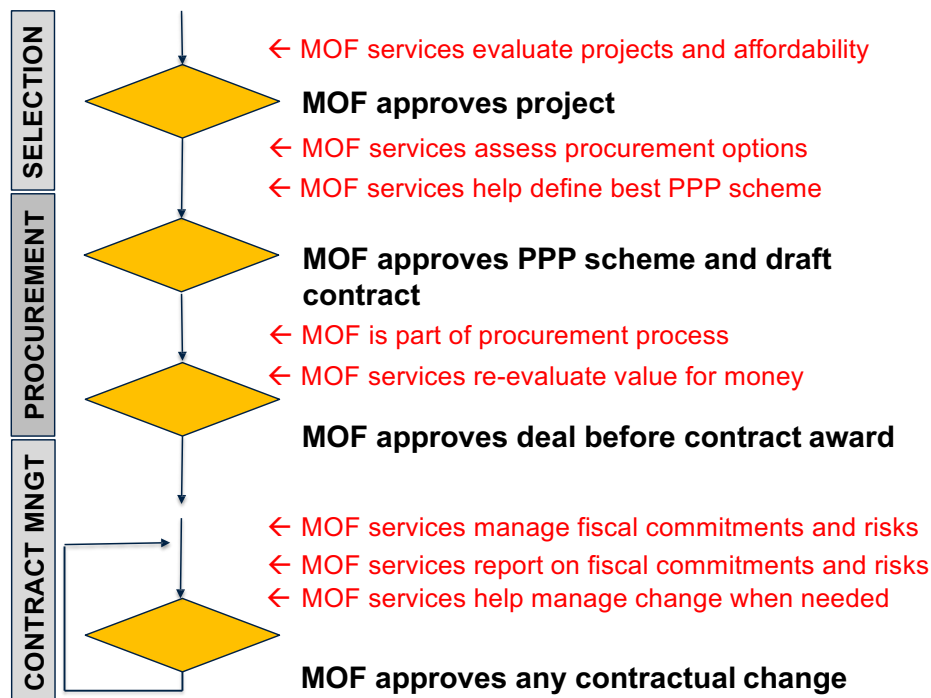
The linkages between MTFF, DSA, and MTDS are not only functional, as previously discussed, but also institutional. At the institutional level, the MTDS falls under Treasury and Debt management departments, while the MTFF and DSA are usually conducted within the Planning, Fiscal Policy, and Budgetary departments. It is fundamental for these departments to act in concert to maintain fiscal stability, minimize costs, and mitigate risks.

2.4. Institutional Framework

Institutional arrangements matter. Specifically, the institutional capacity of governments to evaluate and manage risks generated by PPPs has a central role in the successful development of PPP contracts and the mitigation of related risks. In this regard, governments must have the technical capacity to structure the financing of PPP projects and properly manage the associated risks.

There is no single institutional framework that fits all countries. However, the trend is for ministries of finance (MOF) to play a greater role in decision making and formal approvals at all stages of a PPP project. The role of a centralized agency in a stylized PPP process, exemplified in this case by a MOF, is as follows. During the selection stage, the MOF evaluates different projects, which have usually been previously registered, as well as their affordability. Based on a cost-benefit/value for money and other analyses, the MOF first approves the proposed project and helps

FIGURE 6. MINISTRY OF FINANCE GATEWAY PROCESS FOR PPPS



Source: Gooptu (2015).

define the best PPP scheme. Then, during the procurement stage, the MOF evaluates value for money and approves the PPP scheme; it also evaluates and approves the draft contract and the deal before the contract is awarded. Finally, during the contract management stage, the MOF manages fiscal commitments and risks (e.g., it measures outputs, monitors and regulates performance, and settles disputes), reports on fiscal commitments and risks in the Annual Report, which is scrutinized by the Auditor General, and helps manage modifications when needed. The MOF should approve any modification of the contract during the PPP project. Figure 6 represents a stylized MOF gateway process for PPPs.

A broader role has also been recently assigned to formal PPP units (e.g., in Colombia), which in several cases tend to include the MOF. PPP Units and/or procurement units (e.g., line ministries) are usually responsible for technical analysis of projects, including the performance of value for money analysis

when this instrument is applied.⁶ Additionally, legislation should explicitly acknowledge and address the linkages between institutions involved in PPP risk management, considering that incentives are not always aligned.

2.5. PPPs Risk Management

Risks associated with PPPs should be managed comprehensively, and policy decisions should reflect the true cost of CLs. Both fiscal and financial risks in a PPP portfolio should be identified and handled in the context of the government's entire asset and liability portfolio, following a Sovereign Asset and Liabilities Management (SALM) approach, and in the

⁶ In Colombia, the National Planning Department is responsible for performing value for money analyses of PPP projects.

FIGURE 7. TOOLKIT: GENERAL METHODOLOGY

Elements considered	General estimation methodology
<ul style="list-style-type: none">▪ Maximum exposure (ME_i): Maximum amount that would arise in the worst possible scenario for the State (e.g., no traffic in a concession)▪ Adjustment parameter (B_i): Adjusts the <i>ME</i> to more realistic values of an eventual consolidation of the liability▪ Probability of occurrence (P_{it}): Of the event <i>i</i>, in period <i>t</i> ($0 \leq P < 1$)	$NPVCL_i = \sum_{t=1}^n \frac{ME_i B_i P_{i,t}}{(1+r)^t}$ <ul style="list-style-type: none">▪ $NPVCL_i$: Net present value of CL <i>i</i>▪ <i>r</i>: Discount rate▪ This general expression provides net present value and flow of the CL at each period▪ From this, a specific measurement methodology is defined for each category of CLs included in the toolkit

Source: Demaestri (2015).

MTFF. Consolidating risks from PPPs and integrating them with risk management of other CLs across all government levels and agencies help mitigate and manage risks thoroughly and efficiently.

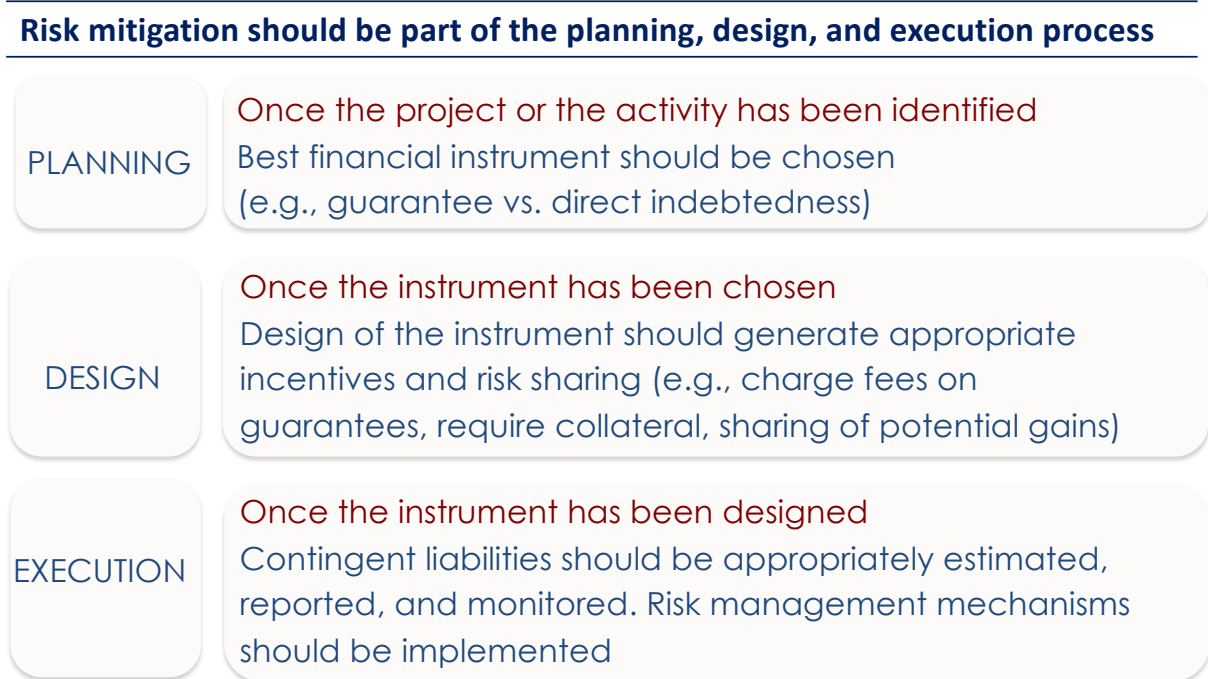
Effective PPP risk management includes the identification, estimation, monitoring, exposure, and mitigation of risks. Demaestri and Moskovits (2016) developed an identification, estimation, monitoring, and exposure toolkit to help manage CLs (including CLs from PPPs).⁷ This toolkit identifies the main CLs to be considered; presents a general methodology for the estimation of the net present value of CLs, annual flows of CLs and maximum exposure (for explicit CLs); and enables stress tests to be carried out to assess the effects of changes in different variables/parameters in the estimations. Figure 7 depicts the methodology proposed in the toolkit, adapted for different types of CLs.

With respect to CLs from PPPs, the toolkit currently enables the identification, estimation, monitoring, and exposure of CLs coming from the following risks: (i) demand or usage (through the estimation of MRGs⁸); (ii) construction, technology, and financing risks (through adapting the category which deals with guarantees to the private sector); (iii) different

⁷ The toolkit includes the following categories of CLs: guarantees to the private sector; intra-public sector guarantees; MRGs (in PPPs); deposit insurance; litigious activities and events covered by sovereign wealth funds among explicit CLs, and natural disasters among implicit ones.

⁸ CLs from MRGs are uncertain in terms of magnitude, probability, and timing of occurrence. The expected revenue is estimated through a stochastic model, and the magnitude is estimated by the difference between the minimum revenue guaranteed in the PPP contract and the expected revenue for each period. The timing depends on the length of the concession and the established periodicity of payments.

FIGURE 8. MITIGATING CONTINGENT LIABILITIES IN PPPS



Source: Demaestri (2015).

interpretations of contract terms (through the category of litigious activities); and (iv) force majeure risks (related to natural disasters). Other risks, such as renegotiation or contractor default, have not yet been included in the toolkit.

Regarding risk mitigation, there are several instruments to be applied. Instruments inherent to the public sector include: (i) conducting cost-benefit/value for money analysis; (ii) fulfilling competitive processes for project selection (e.g., South Africa); (iii) easing access to information by public entities in charge of estimating CLs (to better evaluate and monitor them); (iv) developing panels of experts when information is missing or delayed (e.g., Colombia); (v) explicitly acknowledging as many risks as possible; (vi) establishing well-defined ceilings on exposure (e.g., Peru); and (vii) introducing risk accounts (e.g., Turkey) or contingency funds (e.g., Colombia). If fiscal rules are established, they should address PPPs. Additionally, debt sustainability analysis should incorporate com-

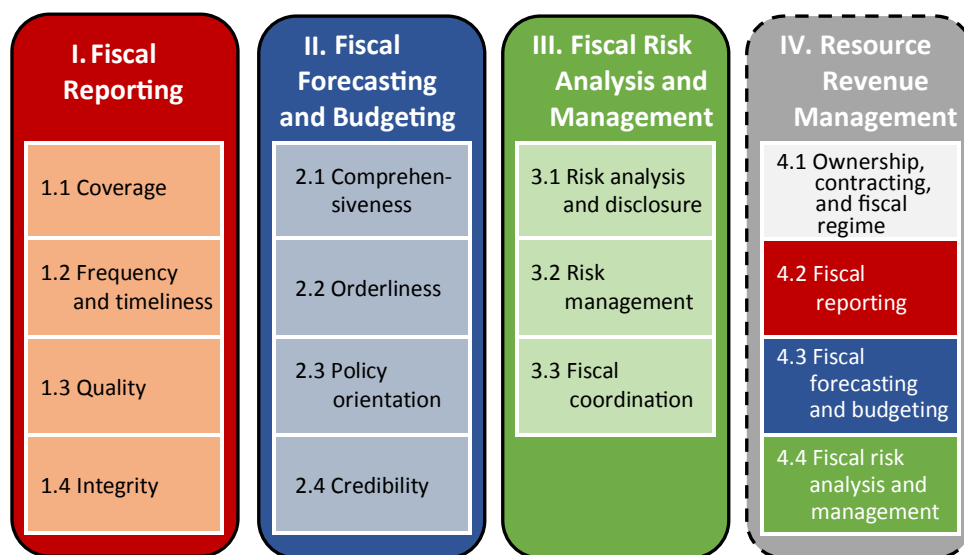
mitments and risks accruing from PPPs, including sensitivity analyses of fiscal and financial risk factors, especially with respect to financial variables. Other instruments that rely on external sources may include contracting contingent credit lines, external guarantees, and insurance.

To mitigate risks from PPP projects, risk management of CLs should be integrated into the different stages of activities and projects. In other words, risk mitigation should be part of the PPP planning, design, and execution processes (Figure 8). This means that managing risks from the outset of the PPP process is essential.

2.6. Accounting and Reporting of CLs Generated by PPPs

Accounting for potential fiscal liabilities from PPPs is a vital part of the fiscal management strategy.

FIGURE 9. PILLAR THREE OF IMF FISCAL TRANSPARENCY CODE: FISCAL RISKS FROM PPPs, 2014



Source: Gooptu (2015).

Having a good accounting of CLs is a requirement to avoid underestimating risks and potential costs in PPPs. In this regard, international accounting standards were revised in recent years and have subsequently become more stringent (e.g., IPSAS 32, IMF's new Fiscal Transparency Code, Eurostat new approach).

Nevertheless, there is still a gap between current practices and international standards. Indeed, even MTFs do not normally include CLs coming from PPPs. Countries are only beginning to address potential fiscal liabilities from PPPs in their accounting and regulatory frameworks. Moving toward the adoption of international standards and the closing of the existing information gap is crucial to improving risk management of PPPs.

Pillar three ("Fiscal Risk Analysis and Management") of the IMF's Fiscal Transparency Code (2014) refers to fiscal risks from PPPs to address this gap. This new Code suggests that PPP obligations should be disclosed and actively managed in coordination with the different areas involved. Pursuant to the Code, "fiscal reports cover all entities engaged in public activities

according to international standards." Figure 9 illustrates the basic principles of the Fiscal Transparency Code.

The International Public Sector Accounting Standards Board (IPSASB, 2011) has published public accounting standards based on the "control criterion" of which IPSAS 32 is particularly noteworthy. Accordingly, most PPPs should be incorporated into the government's balance sheet. This principle is compatible with private sector accounting practices and drives better reporting on PPPs. Eurostat's ESA-95 has been revised to improve scrutiny of PPPs with standards based on the "risks-and-rewards" criterion.

As for the reporting of CLs generated by PPPs, the gradual adoption of stricter reporting practices is underway. In this respect, the Fiscal Transparency Code (IMF, 2014) suggests that fiscal reports should cover all entities engaged in public activity according to international standards. This implies that PPP obligations should be disclosed and actively managed. Budgeting of CLs generated by PPPs is still limited to the short term or almost nonexistent.

MANAGEMENT OF PPPs FISCAL AND FINANCIAL RISKS: REGIONAL EXPERIENCE⁹

3.1. The Context

The LAC region is a good source of experiences and lessons learned regarding PPPs. As mentioned above, in recent years PPPs have been gaining scope in the region due to the growing need for investment in infrastructure and the increasing fiscal and financial constraints that governments are facing. Nevertheless, there is still great heterogeneity among countries in terms of readiness and capacity to carry out PPP projects, as can be seen in the Infrascopes Index.¹⁰ The Infrascopes Index classifies countries in four categories: mature (score: 80–100), developed (60–79.9), emerging (30–59.9), and nascent (0–29.9), depending on the laws, regulations, institutions, financial facilities, and practices that affect the environment for PPPs. As shown in Table 2, Brazil, Chile, and Peru are the most advanced countries in the region in terms of readiness and capacity to carry out infrastructure projects through PPPs.

The largest improvements between 2010 and 2014 regarding readiness and capacity to carry out infrastructure projects through PPPs were achieved by countries that the Index classifies as “emerging” (e.g., Honduras, Paraguay, and Uruguay) (Figure 10). Countries classified as “developed” (e.g., Chile, Colombia, and Peru) showed less progress.

⁹The content of this section is mainly based on Demaestri (2015).

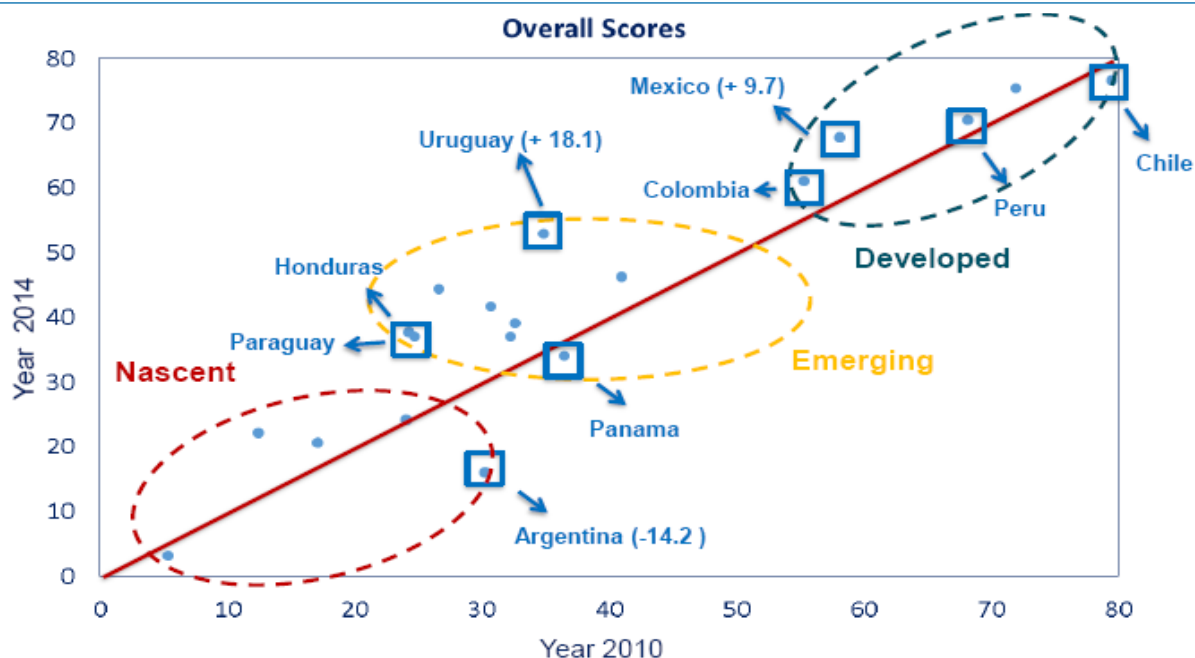
TABLE 2. LAC EXPERIENCE: INFRASCOPE INDEX OVERALL SCORES, 2014

	Ranking	Country	Overall score
Developed	1	Chile	76.6
	2	Brazil	75.4
	3	Peru	70.5
	4	Mexico	67.8
	5	Colombia	61.0
Emerging	6	Uruguay	52.9
	7	Guatemala	46.3
	8	Jamaica	44.4
	9	El Salvador	41.6
	10	Costa Rica	39.0
	11	Honduras	37.7
	12	Paraguay	37.0
	13	Trinidad and Tobago	37.0
	14	Panama	34.0
Nascent	15	Dominican Republic	24.2
	16	Ecuador	22.1
	17	Nicaragua	20.6
	18	Argentina	16.0
	19	Venezuela	3.2

Source: Demaestri (2015).

¹⁰ Infrascopes is an index developed by the Economist Intelligence Unit (EIU) and supported by the Multilateral Investment Fund (MIF), a member of the IDB Group. The index assesses countries' readiness and capacity to carry out infrastructure projects using PPPs by focusing on the laws, regulations, institutions, financial facilities, and practices that affect the environment for developing PPPs (MIF-IDB, 2015).

FIGURE 10. INFRASCOPE OVERALL SCORES: OBSERVED CHANGES, 2010–14



Source: Demaestri (2015).

3.2. Institutional Framework

The institutional capacity of governments to evaluate and manage risks associated with PPPs plays a central role in the successful development of PPP contracts and the mitigation of these risks. The main measures that countries have adopted in recent years within their institutional settings to improve the fiscal and financial management of PPPs include assigning a more central role to MOFs throughout the PPP process and establishing formal PPP units, often within the MOF, responsible for carrying out the analysis of risks associated with PPP projects in coordination with other agencies. For example, Honduras has recently established a fiscal contingencies unit within the MOF.

In the context of the growing importance of PPPs in the LAC region in recent years, several countries have introduced or modified their regulatory frameworks for developing and fostering PPPs. This is the case of Guatemala and Honduras (2010, 2012, and

2015); Uruguay (2011); Brazil, Colombia, Jamaica, Mexico, and Paraguay (2012); El Salvador (2013); and Peru (2015).

Although institutional capacities for developing PPP projects have improved in recent years, there is still plenty of space for strengthening the institutional framework for risk management in the LAC region. Improving coordination among ministerial units involved in different aspects of the PPP schemes through a designed coordination mechanism, establishing designated units for financial and fiscal risk management, and increasing public credit offices' responsibilities regarding risk analysis related to PPP projects are essential in this regard.

3.3. Risk Management

Recently, some countries have been making progress in strengthening PPP risk management. Measures to improve the fiscal and financial management of

PPPs include: (i) integrating PPPs into the public investment management framework (considering the entire portfolio); (ii) adopting more stringent reporting practices; (iii) improving project selection through a more competitive process¹¹; (iv) strengthening fiscal rules for PPPs; and (v) incorporating commitments and risks accruing from PPPs in debt sustainability analyses.

In this regard, Paraguay has recently introduced a PPP mechanism and is working on estimating and monitoring CLs in a comprehensive way, while Panama, which has not yet implemented PPPs, is strengthening risk estimations and monitoring projects related to infrastructure as well as considering a SALM approach. Some LAC countries estimate, monitor, and publish some of their explicit CLs derived from PPP projects (mainly those generated by MRGs). This is the case in Chile and Colombia (Table 3), where the net present value of explicit CLs from MRGs are relatively low: 0.14 percent and 0.30 percent of GDP, respectively. Nevertheless, there is still a need to improve monitoring and management of risks of other explicit CLs generated by PPPs (the Toolkit presented above could help governments in this regard).

Furthermore, there has been little to no focus on the estimation of implicit CLs despite the high fiscal costs involved. For example, 68 percent of PPP projects in the LAC region were renegotiated, generating significant costs to the countries (Table 4). Monitoring explicit CLs could help governments to foresee the need for renegotiation. Implicit CLs could also be reduced through better design of PPP projects.

TABLE 3. ESTIMATION OF CONTINGENT LIABILITIES FROM MINIMUM REVENUE GUARANTEES

Country	Maximum exposure	Net present value
Chile	2.5% of GDP	0.14% of GDP
Colombia	NA	0.3% of GDP

Source: Demaestri (2015), based on Dirección de Presupuestos, Ministerio de Hacienda, Chile, and Ministerio de Hacienda y Crédito Público, Colombia.

TABLE 4. PERCENTAGE OF RENEGOTIATED PPPs IN LAC AND AVERAGE TIME TO RENEGOTIATION

Sector	% of renegotiated PPPs	Average time to renegotiation (years)
All sectors	68	1.0
Electricity	41	1.7
Transport	78	0.9
Water	87	0.8
Social sectors	39	1.2
Other sectors	35	1.0

Source: Demaestri (2015), based on Guasch (2014).

With respect to reporting CLs generated by PPPs, a few countries in the region are moving toward adopting more stringent reporting practices (consistent with international standards). Chile, for example, publishes an annual report on CLs from its concessions system.

¹¹ Projects are selected by their socio-economic impact rather than off-budget characteristics and accounting considerations that generate “hidden deficits.”

MANAGEMENT OF PPPs

FISCAL AND FINANCIAL RISKS:

COUNTRY-SPECIFIC EXPERIENCES

This section presents the experiences of two leading countries, Turkey and Colombia, regarding PPP risk management. It also presents relevant aspects of the experiences of other countries in the LAC region.

4.1. Case Study: Turkey¹²

In Turkey, PPP contracts are normally designed so that risks are typically shared between the public and private sectors. Among the CLs associated with PPPs presented in Table 1 herein, the explicit CLs that the Turkish government incurs are: (i) MRGs, (ii) debt assumption commitments, (iii) termination payment commitments, and (iv) investment guarantees.

Institutional Framework. Turkey manages PPPs institutionally in three stages (Figure 11). The implementing/procuring institution, which varies by sector, proposes the project and is responsible for its technical and economic feasibility. The High Planning Council (HPC), an authorizing body, is responsible for approving the projects, while the Treasury, the Ministry of Development, and MOF have responsibilities at all stages of the PPP project.

The Turkish Treasury's involvement in PPP projects can be summarized as follows:

1. Before authorization by the HPC, pre-feasibility reports of PPP projects are submitted to the Treasury, the MOF, and the Ministry of Development for review. The relevant departments within the

Treasury review the reports with a focus on the possible burden and/or fiscal risk the project may impose on the central government budget.

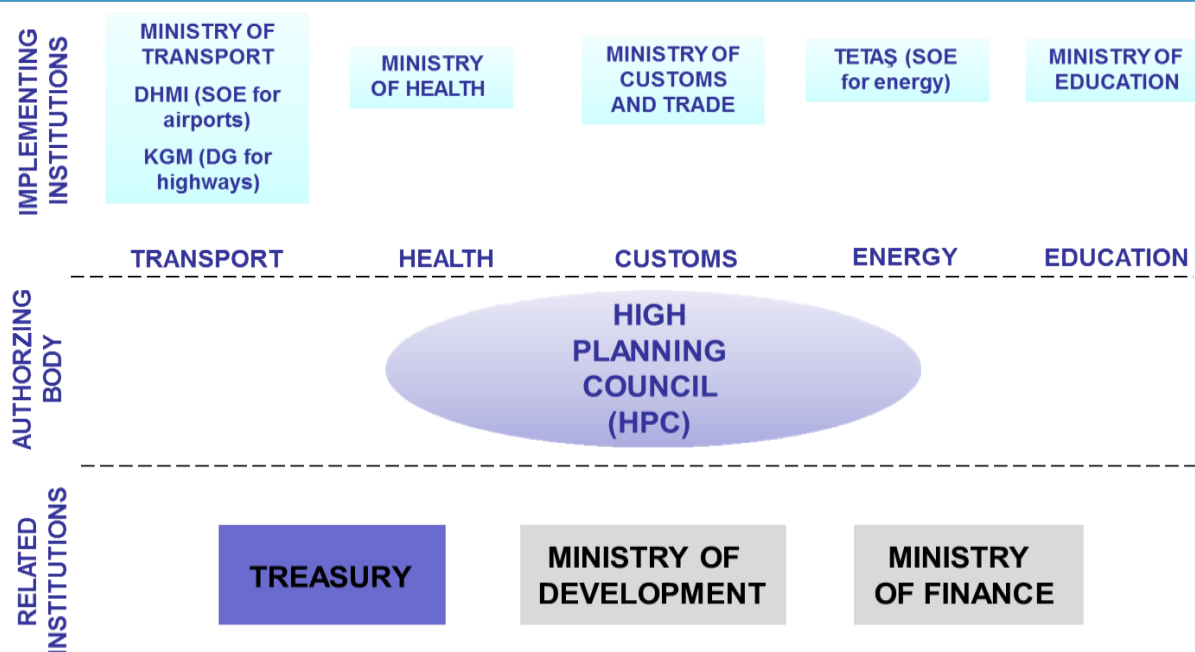
2. When the PPP contract includes debt assumption commitments,¹³ the Treasury is also involved during the procurement process. Debt assumption provisions are submitted to the Treasury for its affirmative opinion at two stages of the process: before tender and before execution of the implementation contract. Once the implementation contract is signed, the Treasury participates in the negotiation of the debt assumption agreement (DAA) and then submits the agreed terms to the Council of Ministers, which makes the final decision. The DAA is executed along with the other agreements included in the financial package (IC Direct Agreement, Facility Agreement, etc.).
3. Until 1999, the Treasury provided investment guarantees, which were in the form of Treasury counter-guarantees for the take or pay guarantees of public administrations in PPPs (11 BOTs, 5 BOs, 1 TOOR).¹⁴

¹² This section is based on Ülgentürk (2015).

¹³ Treasury debt assumption commitments are a credit enhancement tool applied around early termination of contracts. Through this mechanism, the Treasury assumes the outstanding senior loan to lenders with the financing costs in case of an early termination, provided that the government takes over the project assets.

¹⁴ BOT: build-operate-transfer; BO: build-operate; TOOR: transfer of operational rights.

FIGURE 11. PUBLIC STAKEHOLDERS IN TURKISH PPPS



Source: Ülgentürk (2015).

The Turkish Treasury's perspective on PPP projects is clear and strikes a balance in its approach between ambition and caution. In this sense, value for money analysis involving risk identification, assessment, and allocation is crucial. Credit enhancement tools provided by the Treasury and other institutions may result in increased bankability for the projects, but not without increased risks. Therefore, commitments and/or guarantees offered by public institutions, including the Treasury, should be closely monitored for effective management of fiscal risks, and the relevant parties should carefully analyze the sustainability of these commitments.

In its capacity as the public debt manager, the Treasury calculates the possible fiscal burden on the government created by the commitments of the public sector to the project companies, paying particular attention to debt sustainability. In this regard, there are initiatives to support the Treasury in assuming these responsibilities by facilitating its access to information.

Risk management. Debt assumption commitments generate sovereign CLs. As shown in Table 5, projects with Treasury debt assumption commitments reached a total cost of US\$11 billion, and loans were up to US\$8.7 billion by November 2016.

Risk mitigation measures taken by the Treasury regarding CLs generated by debt assumption commitments include: (i) participating in the negotiations and approving the implementation agreement for debt assumption¹⁵; (ii) setting annual budgetary commitment ceilings that are determined via rigorous scenario analysis with respect to the effects on the debt stock; (iii) partial debt assumption (85 percent of the outstanding debt is assumed if the early termination is caused by failure of the project company to fulfill its obligations); and (iv) requirement of collateral from the partners of the project company of at least 110 percent of the maximum installment amount.

¹⁵ The Treasury cannot provide debt assumption commitments to PPP projects of municipalities and SOEs.

TABLE 5. PROJECTS WITH TREASURY DEBT ASSUMPTION COMMITMENTS IN TURKEY

Project name	Total project cost (billions of US\$)	Loan amount (billions of US\$)
Eurasia Tunnel	1.2	1.0
Gebze-Orhangazi-İzmir Motorway* (including the İzmit Gulf crossing and access roads)	6.3	5.0
Odayeri –Paşaköy section (including 3rd Bosphorus Bridge) of the Northern Marmara Motorway	3.5	2.7

* For the first and second phase of the project.

Source: Public Debt Management Report December 2016 (N° 137). Undersecretariat of Treasury, Republic of Turkey Prime Ministry.

The main risk mitigation measures taken by the Treasury regarding CLs generated by investment guarantees are: (i) the establishment of a risk account: an escrow account for investment and repayment guarantees with revenues that come from appropriations,¹⁶ guarantee fees, recoveries, and interest income; and (ii) establishing annual budgetary limits for investment guarantees.¹⁷

Reporting CLs Generated by PPPs. Treasury debt assumption commitments and Treasury investment guarantees are reported on the Treasury's website. Turkey reports CLs through an internal quarterly fiscal risk bulletin as well. This bulletin presents estimates on expected losses from Treasury Investment Guarantees and analyzes different debt assumption and MRG scenarios. The Treasury assesses impact on debt sustainability as part of its risk management practices.

Challenges and lessons learned. Challenges that Turkey still faces regarding the management of associated risks and CLs from PPPs include: (i) ongoing work on the enactment of a PPP framework law regulating the mandates of different central government institutions, as well as the procedures and workflows for different types of PPPs and strengthening the central risk management function of the Treasury, (ii) further development of quantification techniques to estimate the costs and risks of demand guarantees and debt assumption commitments; and (iii) the absence of a ceiling on the contingent commitments of public institutions other than the Treasury.

Regardless of possible areas for improvement, it is possible to extract certain recommendations regarding PPP

risk management and their derived CLs. Specifically, (i) a well-established regulatory framework must be developed and implemented, (ii) value for money analysis and transparency (disclosure of PPP contract information including public commitments and risk sharing arrangements) are essential, and (iii) ceilings on exposure are crucial for mitigating risks associated with CLs.

Based on its experience, Turkey led an Organisation for Economic Co-operation and Development (OECD) task force, which also included Brazil, Denmark, Iceland, Mexico, South Africa, and Sweden, on Contingent Liabilities and Public Debt Management to report on country practices. The report produced by this task force was published as an annex to an OECD working paper entitled "The role of public debt managers in contingent liability management."¹⁸

4.2. Case Study: Colombia¹⁹

Colombia is currently a leading country in terms of adequate allocation of risks from PPPs between the public and private sectors. Individual risks are

¹⁶ Appropriations are determined by the credit rating model and cannot be transferred to other budgetary accounts.

¹⁷ Limits also apply to repayment guarantees and on-lending.

¹⁸ OECD Working Papers on Sovereign Borrowing and Public Debt Management, No. 8, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/93469058-en>.

¹⁹ The content of this section is mainly based on Quevedo Caro (2015).

FIGURE 12. EVOLUTION OF PPP CONTRACTS IN COLOMBIA



Source: Quevedo Caro (2015).

assigned to the party that is best capable of managing them. To reach this point, which is the fourth generation of PPP contracts in the case of roads, Colombia has evolved over time through different stages and types of contracts involving allocation of risks. As shown in Figure 12, in the first generation of PPP contracts the government assumed most risks in a context of MRGs. In this first stage, the government offered guarantees to concessionaires that were not included in the fiscal framework. This resulted in the government's facing several unexpected claims and having to serve as guarantor for loans taken out by lower-level entities. Consequently, CLs increased and had a high budget impact. The government had to issue debt to pay off obligations and liabilities. Second- and third-generation models implied reassignment of risks between the parties. The third generation also included extensions and additions to the legislation on concession contracts and a new scheme of contract award criteria. Finally, the current fourth generation of projects has a suggested policy program to mitigate natural disaster events, which remain on the public side. Other risks that still partially remain on the public side include force majeure events, land acquisition, social consultation, environmental licensing, traffic (aggregated

income), and utility networks. According to the IMF (2015), this fourth-generation stage implied the standardization of contracts and better linking of government payments to project completion.

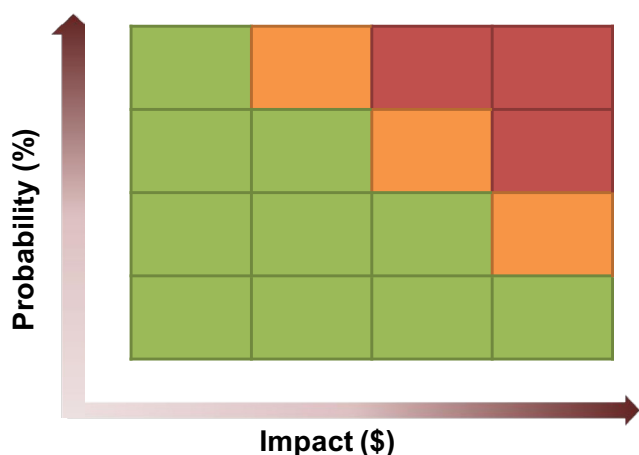
Institutional Framework. In the Colombia case study, the public stakeholders involved in PPP projects are the line Ministries, which propose the project; the PPP unit, which prepares the project and proposes to carry it out via a PPP mechanism; and the Ministry of Finance (Ministerio de Hacienda y Crédito Público, or MHCP), which evaluates the project.

In terms of the regulatory framework for PPPs, the Contingency Fund for State Entities (Fondo de Contingencia para Entidades Estatales, or FCEE) was created in 1998.²⁰ The FCEE changed the way Colombia manages CLs, with a stronger focus on reducing them. In 2001, Decree 423 regulated Law 448 empowering the MHCP to approve values for CLs. In 2012, Law 1508 established the regulations for PPPs in Colombia. In that same year, Decree 1467 regulated Law 1508 establishing the characteristics of PPPs and the procedures they must follow. These policies indicate that risk management is now considered a top priority in every PPP project.

Risk Management. Colombia follows a standard PPP risk management procedure. First, possible causes and effects of risk factors are identified (identification of risks) and each risk is assigned to the agent (private or public) best capable of managing it (assignment of risks). The main risks in PPPs include: property tax risk; environmental and/or social risk; design, construction, operation, and maintenance risks; claim risk; financial risk; regulatory risk, and force majeure risk. Second, a qualitative assessment of probability of occurrence and impact of identified risks is performed (Figure 13). The valuation of identified risks, which includes estimation of the probability

²⁰ Law 448/1998.

FIGURE 13. VALUATION OF PPP RISKS



Risk area = quantitative valuation

Source: Quevedo Caro (2015).

of occurrence and potential impact of each risk, is finally calculated using various techniques that typically include parametric models and simulation models (when it is not possible to calculate a probability distribution function for the risk variable). Sources of information include: historical series, technical studies, practices and/or expertise of the sector, relevant experience, publications, and opinions and views of specialists or experts. The General Office for Public Credit and National Finance is responsible for designing the methodologies for estimating impacts and probabilities of identified risks. The resulting information regarding the identification, assignment, probability of occurrence and estimated impact of risks is compiled into a risks matrix.

One of the most important tools that the Colombian government uses to mitigate risks associated with PPPs is the FCEE. The purpose of this contingency fund, besides minimizing fiscal volatility, is to give continuity to PPP projects and address contingent obligations/liabilities. The Trust Company Fiduciaria La Previsora S.A. is responsible for managing the fund. The fund is financed by contributions from government entities based on a contribution plan, proposed by each entity in relation to the CLs that each

of them faces, and authorized by the MHCP, along with financial yields and portfolio recovery.

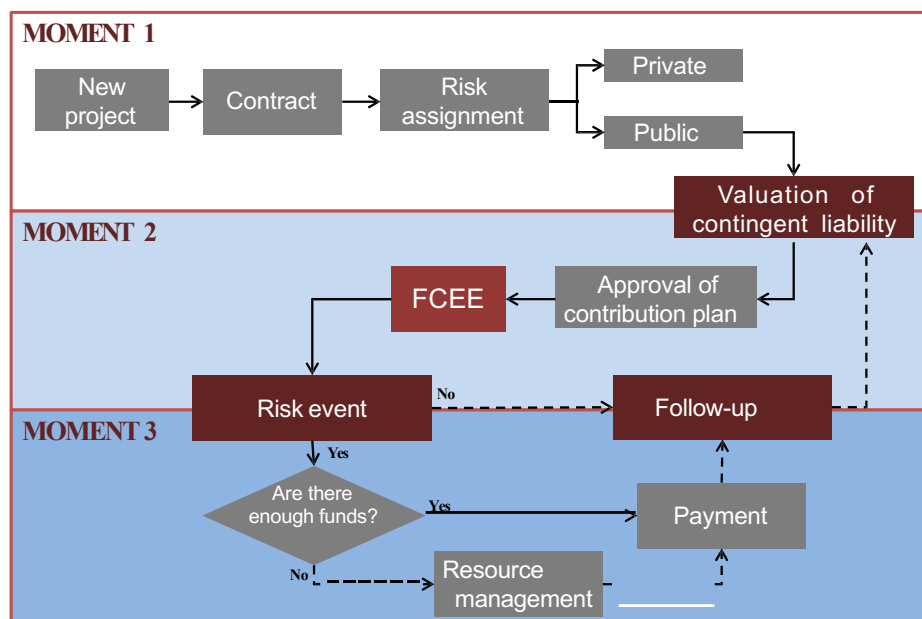
The contribution plan of each government entity can be modified through periodic follow-up or contractual changes. Each entity makes contributions and releases them if a particular event occurs or when risk disappears. The MHCP must approve any transfer. Each government entity identifies, allocates, and distributes risk functions and agrees upon them contractually. Figure 14 depicts the entire procedure related to the management of FCEE resources.

Regarding the fiscal impact of CLs related to PPPs, the contribution plans are included within the PPP's Future Term Quota (at the time of its structuring, funds for CLs are projected) and must be budgeted under debt service (budget planning has a key role). There is a periodic follow-up on contribution plans to avoid having idle funds. Prompt payment of CLs by the government entities is foreseen, avoiding default interest costs. Issuance of debt to pay liabilities is prohibited.

Reporting CLs Generated by PPPs. Law 819 (2003) defines budget standards for fiscal and accounting transparency and the obligation to publish reports on liabilities that may affect the country's finances. The National Fiscal Policy Council (Consejo Superior de Política Fiscal, or CONFIS), the institution in charge of leading fiscal policy and coordinating the budgetary system, approves the estimates for future fiscal periods. Valuations of CLs are reported in the MTFF.

Challenges and lessons learned. In Colombia, the FCEE (responsible for contingency plans) has changed the way the country deals with CLs, particularly those generated by PPPs, which are the source of greatest risk for the government. Now the focus is on risk management. The construction of a risk matrix is an essential and necessary component for risk mitigation and management. Contingency funds implemented through contribution plans made by each

FIGURE 14. PROCEDURE FOR MANAGING FCEE RESOURCES



Source: Quevedo Caro (2015).

government entity are the key players in Colombia's assessment of PPPs.

4.3. Other Country-Specific Experiences²¹

There is broad heterogeneity among LAC countries in terms of types of institutional frameworks for PPPs and the use of this instrument to finance infrastructure. Nevertheless, a common feature in the region is their increasing use to finance infrastructure needs. Their use is expected to increase in the near future.

The following is a brief description of experiences and perspectives of several countries on PPP risk management.

Case Study: Chile

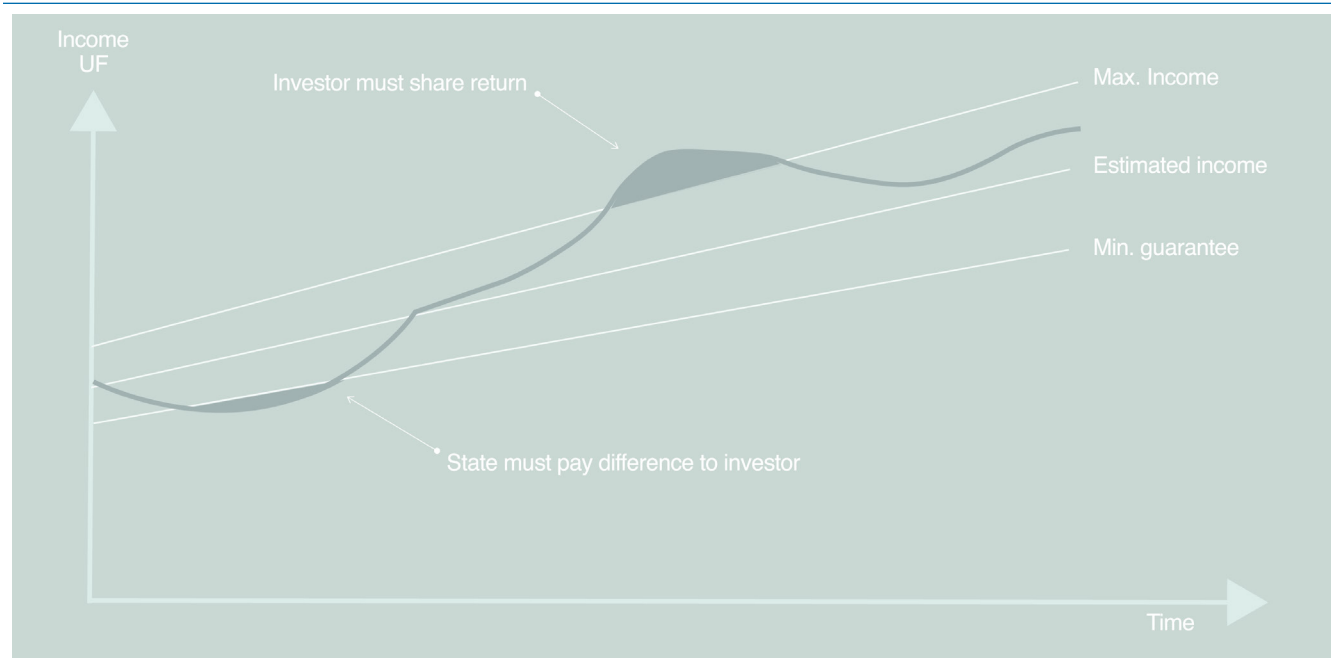
Chile has a long tradition of resorting to PPPs to finance infrastructure development. Since 2015,

Chile's fiscal policy has had the clear objective of accelerating private investment through concession programs implemented by PPPs. Since 1993, investments in PPPs have grown substantially, with a projected project portfolio over US\$11 billion for the period 2014–2020.

Risk Management. PPP contracts generate risks for the government and the private partner. Guidelines for concession planning to mitigate these risks were established early on. Accordingly, risks generated by PPP projects are normally addressed through MRGs. A reasonable leverage ratio should be established and the MRG should be enough to pay the debt of the private party (in present value). As government obligations are more likely to be assumed in downturn cycles (pro-cyclicality), a detailed assessment of risks is necessary. On the institutional side, and to avoid underestimation of risks, the Chilean ministry

²¹ This section is based on González (2015), Quirós (2015), Romero (2015), and Soentik (2015).

FIGURE 15. BASIC PRINCIPLE GOVERNING RISK ALLOCATION BETWEEN PUBLIC AND PRIVATE PARTIES IN MRG



Source: González (2015).

that owns the budget item is responsible for estimating the associated risks. These estimations are published annually in the Contingent Liabilities Report.

Finally, the basic principle that governs the allocation of risks between the private and public parties is sharing of losses as well as gains. In this regard, not only does the government pay if incomes are lower than the MRG, but investors also share returns when incomes are higher than expected. Figure 15 depicts the functioning of this basic principle.

Case Study: Costa Rica

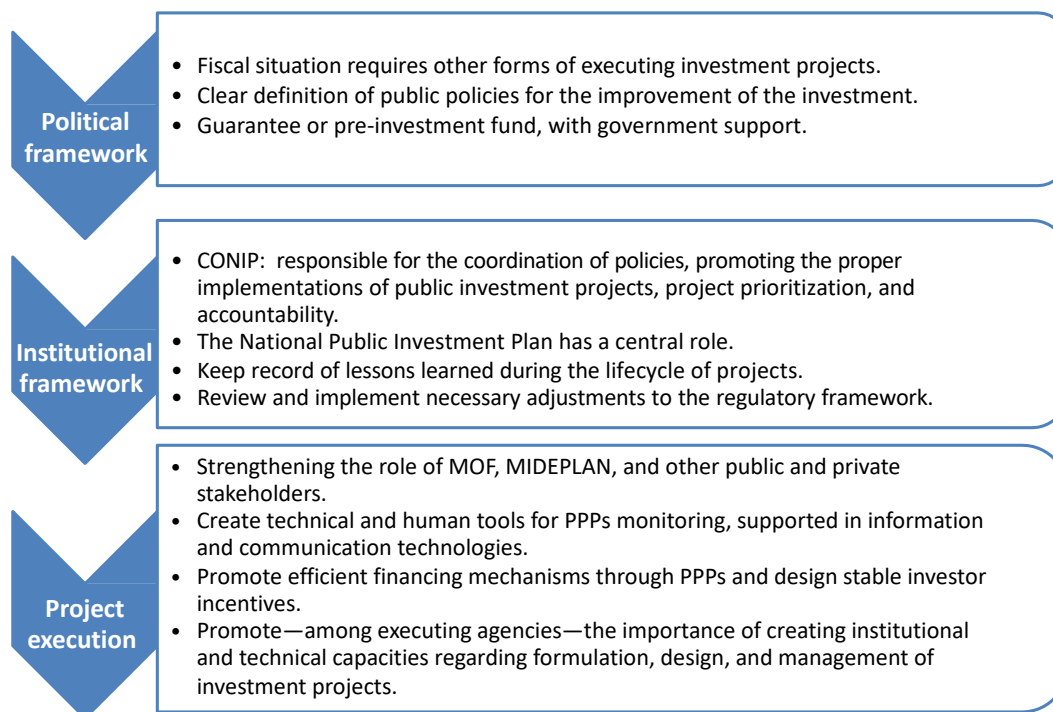
Costa Rica is a relatively new player in the use of PPP projects to finance infrastructure. It faces the task of developing an integrated regulatory framework and establishing a risk management unit capable of dealing with fiscal risks involved in these types of projects.²²

To foster the use of PPP projects as a means of financing infrastructure, the government has the

following strategic approach (Figure 16): with respect to the political arena, the government seeks to clearly define public policies aimed at improving the investment environment and to support the establishment of a guarantee or pre-investment fund. As for the institutional framework, the National Committee for Public Investment is responsible for coordinating the related policies, promoting the proper implementation of public investment projects, and managing project prioritization and accountability. The government is diligent in keeping records of lessons learned during the life cycle of projects, which may help in reviewing and implementing adjustments to the regulatory framework when necessary. Finally, regarding project execution, the government's strategy is in line with: (i) strengthening the role of the Ministry

²² There are currently two PPP projects in process: "Megapuerto de Transferencia del Atlántico" with an estimated total investment of US\$652 million, and "Sistema Ferroviario y sus Puntas Logísticas" with an estimated total investment of US\$445 million.

FIGURE 16. GOVERNMENT'S STRATEGIC APPROACH TO FOSTERING PPP PROJECTS



Source: Quirós (2015).

of Finance, the Ministry of Planning (MIDEPLAN), and other public and private stakeholders; (ii) creating technical and human tools for PPP monitoring; (iii) promoting efficient financing mechanisms through PPPs; (iv) designing stable investor incentives; and (v) promoting the importance of creating institutional and technical capacities among executing agencies in the areas of formulation, design, and management of investment projects.

With regard to public policies related to PPPs, the current regulation comprises the Concessions Law, the Administrative Contracting Law, and some specific regulations at the municipal level and for the water and sanitation sector. The Public Policy for PPPs, which will constitute the general framework for the development of PPP projects in the country, is in process of being formulated.

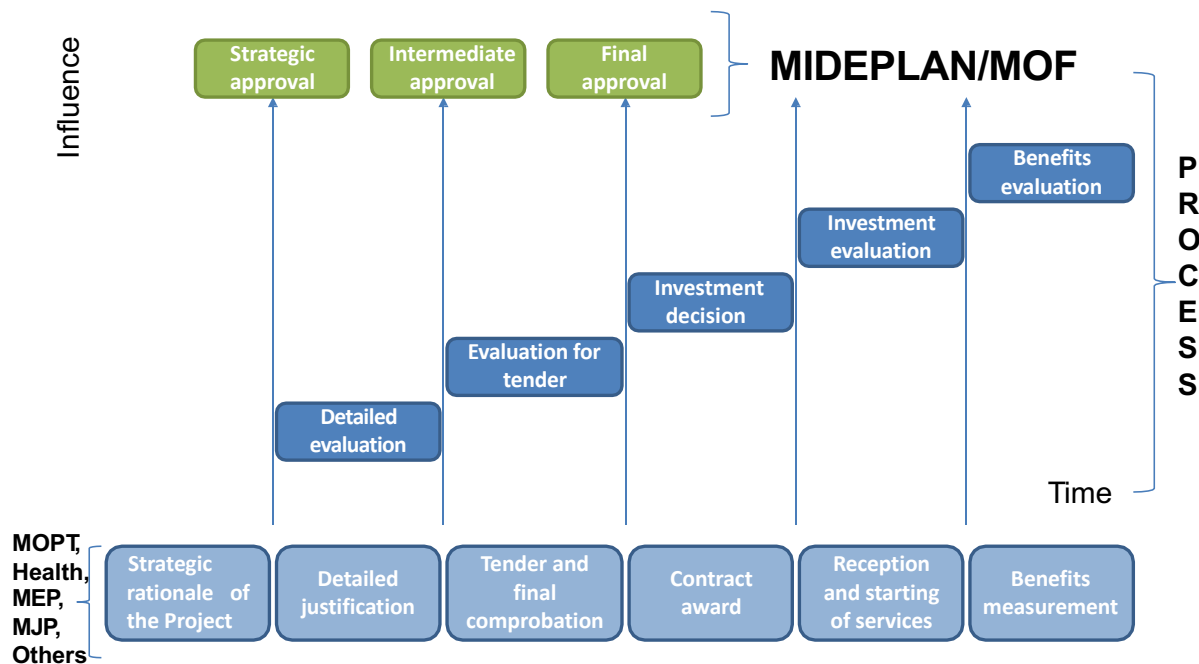
Institutional Framework. The National Concessions Council has been in operation since 1998. Within the

scope of its competencies according to Law 7762, it is responsible for managing the process of awarding concession projects.²³ According to the Concessions Law, the way in which risks are allocated between the parties of a PPP contract defines the obligations and responsibilities of each party in the execution of the contract.

The institutional setting in terms of PPPs changed in 2014 with the creation of the PPP Unit within the General Directorate of Public Credit in the MOF. The objective of this PPP Unit is to ensure that projects to be developed through a PPP scheme are economically, financially, and fiscally sustainable and can generate the necessary technical and analytical support for decision making.

²³ The Financial Administration Act and the Public Procurement Act also regulate the system.

FIGURE 17. A COMPREHENSIVE MODEL FOR THE STRUCTURING, MANAGEMENT, AND MONITORING OF PPP PROJECTS AND THEIR RELATED RISKS



Source: Quirós (2015).

This new regulatory framework aims to generate opportunities for dialogue (working committees) between the private sector and public institutions to make the business strategies compatible with the development objectives through a renewed view of PPPs, obtaining political support and building a social compact.

A proposed next step for improvement is the development of a more comprehensive model for the structuring, management, and monitoring of PPP projects and their related risks. As shown in Figure 17, the idea is to develop an integrated model in which the MOF is involved in different functions during various stages of the project to develop a more efficient PPP process.

The model presented in Figure 17 is based on the best practices of the model used in the United Kingdom. The Costa Rican government is analyzing this and other models, used by Chile, Colombia, and Peru, to

establish the model to be used in Costa Rica and the necessary guidelines and procedures for the country.

Risk Management. Improving the management of fiscal risks associated with PPP contracts is a priority for the MOF. In this regard, the definition of the public policy on PPPs (currently in the formulation phase) is fundamental. To date, possible contingencies derived from PPP contracts to which the central government is exposed have already been identified (guarantees from PPPs). The PPP Unit is currently working on the development of a methodological proposal to assess, estimate, and monitor CLs generated by PPPs. Specifically, the PPP Unit has defined the necessary inputs for the analysis of fiscal contingencies generated by PPPs (including a risk allocation report, an economic and financial report, and the draft contract) and is working on the definition of the specific guidelines and standardized instruments to be used by relevant institutions in the provision of the required information. Strengthening human

resources regarding PPPs risk management is a priority for the future.

The risk management mechanisms for PPP projects in Costa Rica require the elaboration of a plan that allows: (i) the assignment of risks between parties; (ii) estimation of contingency reserves; (iii) analysis of mitigation, transfer, or elimination of risks; (iv) rating of alternatives based on risk appetite; (v) development of risk response plans; (vi) determining the overall level of risk of the project; and (vii) estimation of uncertainty in project scope (time, cost, and quality).

Case Study: Honduras

Institutional Framework. PPPs in Honduras began in 2010 with the creation of COALIANZA, a government agency in charge of fostering public-private participation in infrastructure projects, and its own respective law. Currently, there are various ongoing PPP projects and more in the pipeline, highlighting the need for improvement of PPPs procedures and risk management methodologies.²⁴

In this regard, several strategies were recently implemented to strengthen Honduras' institutional framework regarding PPPs risk management. The PPP Superintendence was enforced and the original PPP law was modified in accordance with the country's needs and following best international practices. The new regulatory framework created the Fiscal Contingencies Unit (Unidad de Contingencias Fiscales, or UCF), a specialized technical unit with adequate professional capacity that is responsible for identifying, analyzing, quantifying, registering, managing, and determining the costs and fiscal risks associated with investment projects under the PPP scheme and other sources of fiscal risks. This unit is also in charge of reviewing the feasibility and cost-benefit analysis conducted by COALIANZA for every project to be incorporated into the National Public Investment System of Honduras under a PPP model, and is responsible for issuing authorizing (or disallowing) opinions at the start and continuation of each project under the PPP scheme.

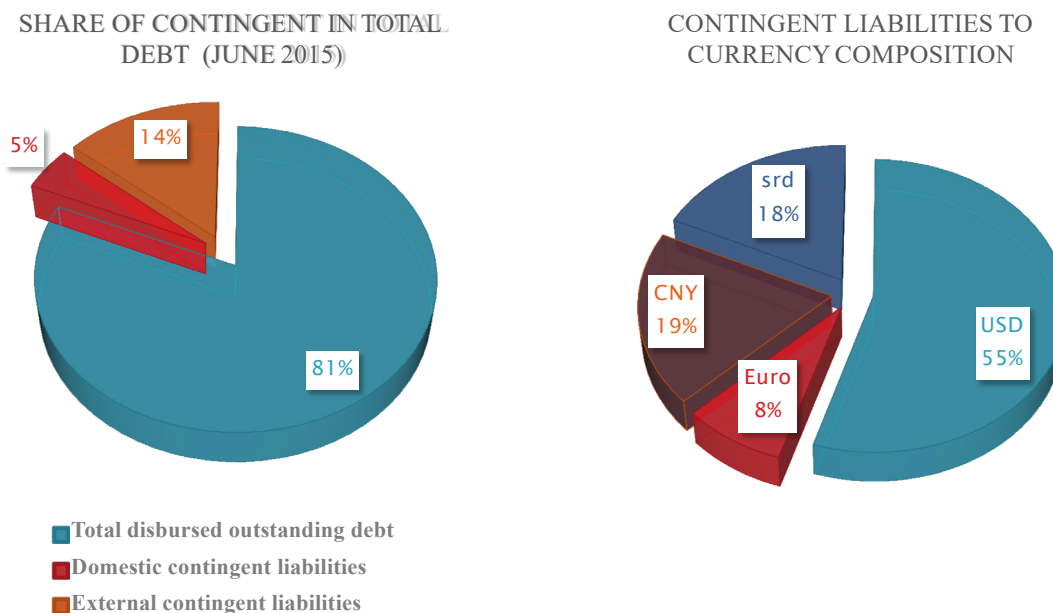
Risk management. The main sources of fiscal risks identified in Honduras include: (i) guarantees granted by the government in support of public credit operations contracted by public sector entities, (ii) PPP contracts, (iii) lawsuits against the government, (iv) indebtedness of municipalities and public enterprises, and (v) natural disasters.

The main risk mitigation mechanisms used in Honduras include the following:

- i. Public Debt Policy (2015–2018), which aims to establish guidelines for efficient management of public debt allowing the Public Sector to cope with financing needs and investment of national interest, with the best balance between cost and potential risk.
- ii. Medium-Term Debt Strategy, which aims to contribute to macroeconomic stability and debt sustainability.
- iii. Fiscal risks unit. The MOF has a unit to identify, analyze, measure, declare, and propose a strategy to mitigate risks. The mitigation strategy is based on the principle of assigning risks to the entity most capable of managing each fiscal risk.
- iv. The financial commitments of the risks should be shared with users, such that: (i) in the event that the statement of fiscal risks may lead to moral hazard, the government should encourage the purchase of insurance and (ii) if the government absorbs costs as a result of the occurrence of an unexpected event, then the government should encourage the entity to be responsible for a portion of the total cost.
- v. The MOF has a plan for re-profiling domestic debt to reduce the pressure on the General Treasury, thus lengthening the average maturity of domestic debt.

²⁴ These projects include the Container Terminal of Puerto Cortés, Bulk Terminal of Puerto Cortés, Government Civic Center, International Airport Palmerola, Logistics Corridor, and Tourist Corridor, among others.

FIGURE 18. CENTRAL GOVERNMENT DEBT FIGURES



Source: Soentik (2015).

Case Study: Suriname

Suriname, which does not use the PPP instrument to finance infrastructure, used to constitute a special case in the region regarding CLs treatment as it included explicit CLs in its definition of public debt²⁵ and debt ceilings. As Figure 18 shows, CLs represented 19 percent of total public debt in June 2015.

Debt ceilings established that the total amount of public debt, including CLs, could not exceed a debt-to-GDP ratio of 60 percent. Thus, this regulation used to act as an instrument for debt management, including CLs.

Every year, the Debt Management Office (DMO) develops a medium-term debt management strategy in which the preferable composition of new debt as

well as CLs is taken into consideration. At the time of writing, the medium-term debt management strategy has not yet been fully integrated in official government financial policy. This is one of the challenges faced by the DMO.

In May 2016, the National Debt Law was revised. It adopted an international standard definition for gross debt. Consequently, CLs are not considered part of national gross debt anymore.

²⁵ Government debt was defined as the total of the outstanding legally contracted debt obligations at the expense of the State, including amounts of contracted debt not yet withdrawn, overdue interest, and charges with respect to the State's payment obligation on guarantee commitments.

MITIGATING RISKS FROM PPPs: THE USE OF GUARANTEE INSTRUMENTS²⁶

Guarantees for PPP projects help mobilize private capital for infrastructure financing. Thus, guarantees contribute to enhancing investment and improving the quality of life through the provision of public goods and services.

Guarantees foster investment and improve the financing of PPP projects by targeting better risk allocation and enhancing a country's access to credit. Specifically, guarantees can increase financing by disaggregating risks (by allowing market participants to bear risks according to their capacity to manage them); developing missing markets (by addressing specific risks that restrict financing or act as barriers to suitable credit structures), and through a leverage effect (by improving the rating of the guaranteed firm/institution).

Within PPPs, the private partner typically discounts all the risks it faces (e.g., financial, construction, and maintenance risks) at the beginning of the partnership, and increases the project costs accordingly (Figure 19).²⁷ This makes guarantees essential to the entire lifecycle of PPPs.

Multilateral development banks (MDBs) are particularly well suited for providing guarantees with developmental purposes through PPP projects because of: (i) their high standing in credit markets (AAA rating), (ii) their strong understanding of political and credit risks, (iii) their good positioning to assume specific risks, (iv) the “halo effect” provided by MDB involvement, and (v) the provision of technical assistance.

These guarantees can function through different channels, such as: (i) covering an obligation by a public company to achieve financial viability, (ii) attracting institutional investors for the financing of projects, and (iii) through guarantee funds for PPPs, among others.

In the first case (Figure 20), a partial credit guarantee (with sovereign counter-guarantee) used to cover an obligation of the private party by a public company helps achieve financial viability by lowering the interest rate and thus decreasing the cost of the project or increasing the amount of credit that can be directed to public infrastructure.

In the second alternative, MDB guarantees help attract institutional investors for project financing²⁸ through their contribution to achieving an investment grade instrument, as illustrated in Figures 21 and 22.

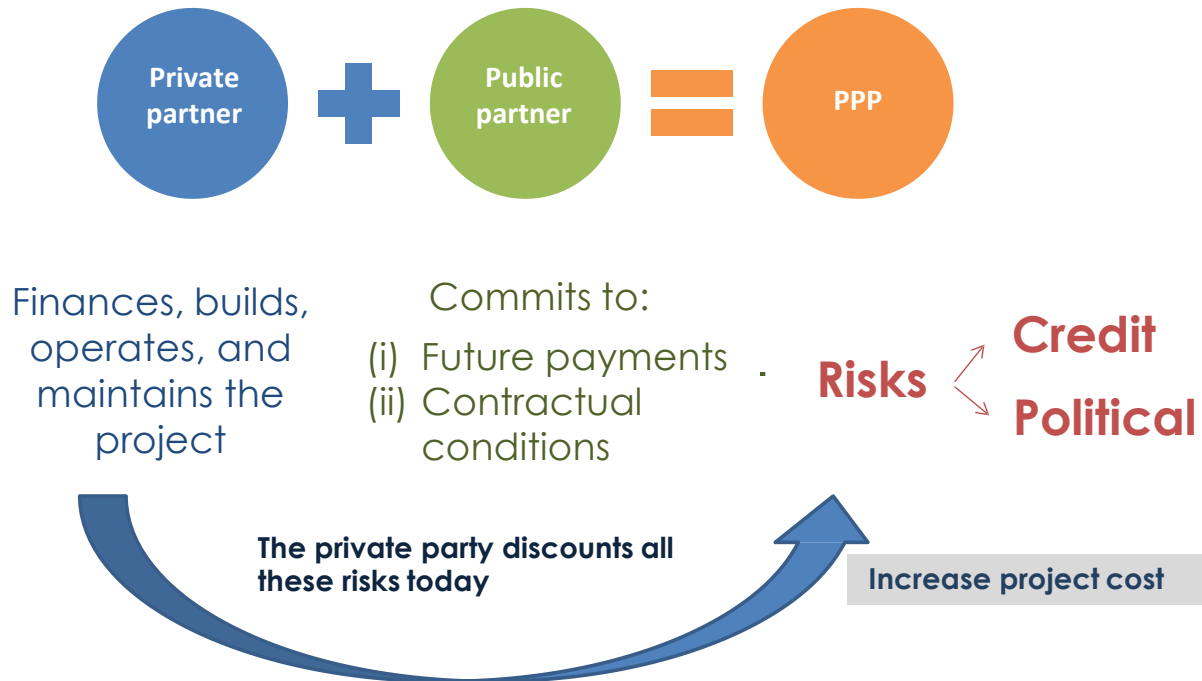
Rating agencies strongly value guarantees that: (i) provide support similar to that of a credit line, (ii) add creditworthiness beyond the structural protection of the underlying instrument, (iii) have few provisions of exception of payment, and (iv) are irrevocable. For

²⁶ The content of this section is based on Andrade (2015).

²⁷ The more difficult it is for the private partner to measure or predict a risk (such as those that depend on government action), the higher the discount rate used and as such, the higher the total project costs, which could make the project unviable.

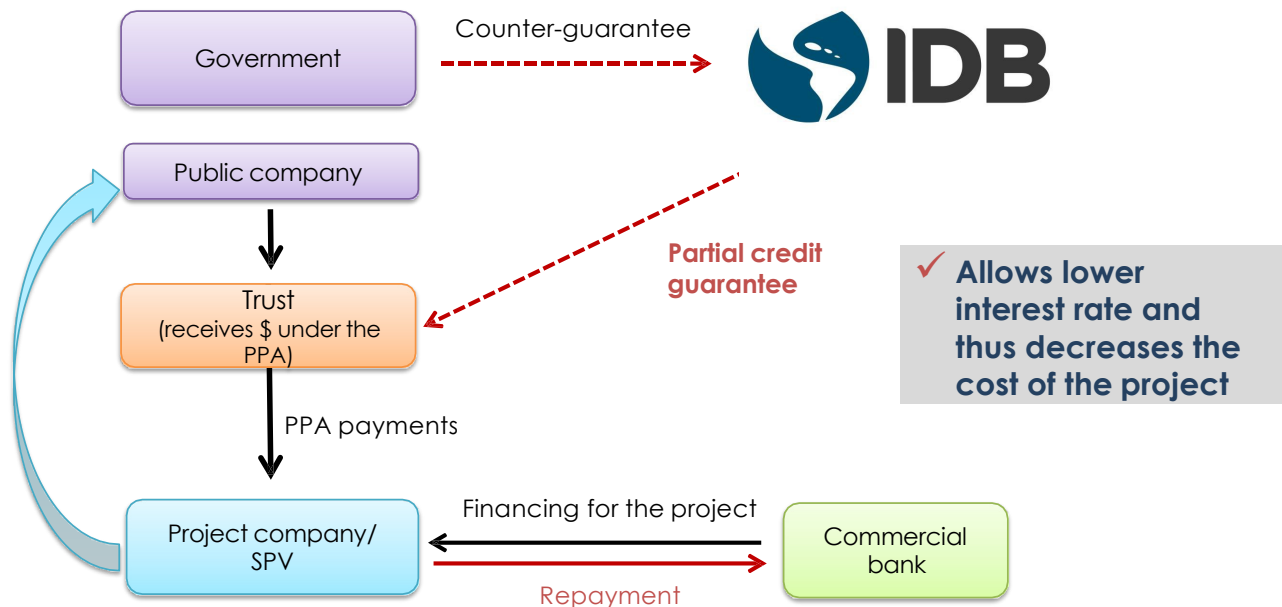
²⁸ Today, according to current rules for public infrastructure investments, the estimated amount from private pension funds with the potential to be directed to public infrastructure debt instruments is US\$143 billion.

FIGURE 19. PUBLIC RISKS IN PPPS



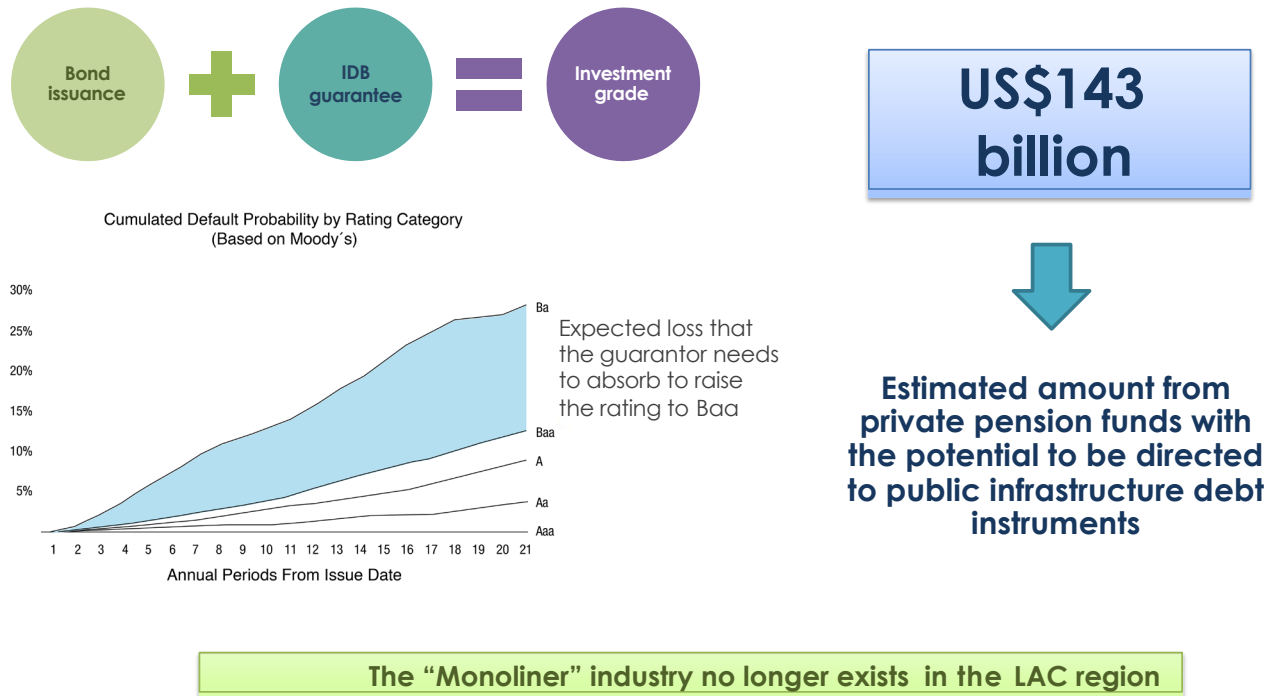
Source: Andrade (2015).

FIGURE 20. MDBS PARTIAL CREDIT GUARANTEES



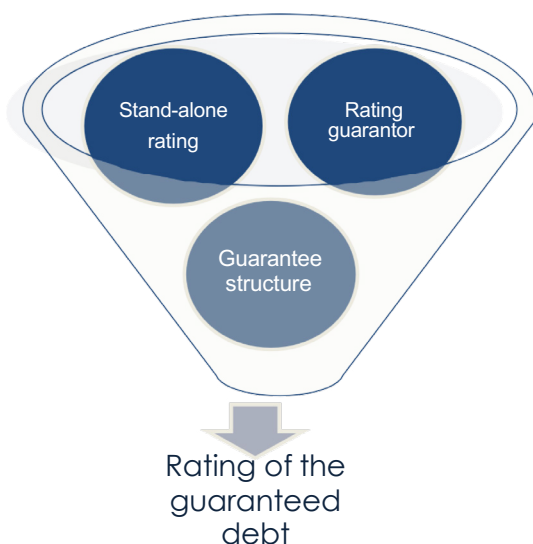
Source: Andrade (2015).

FIGURE 21. MDBS GUARANTEES HELP ATTRACT INSTITUTIONAL INVESTORS



Source: Andrade (2015).

FIGURE 22. MDB GUARANTEES HELP ACHIEVE INVESTMENT GRADE



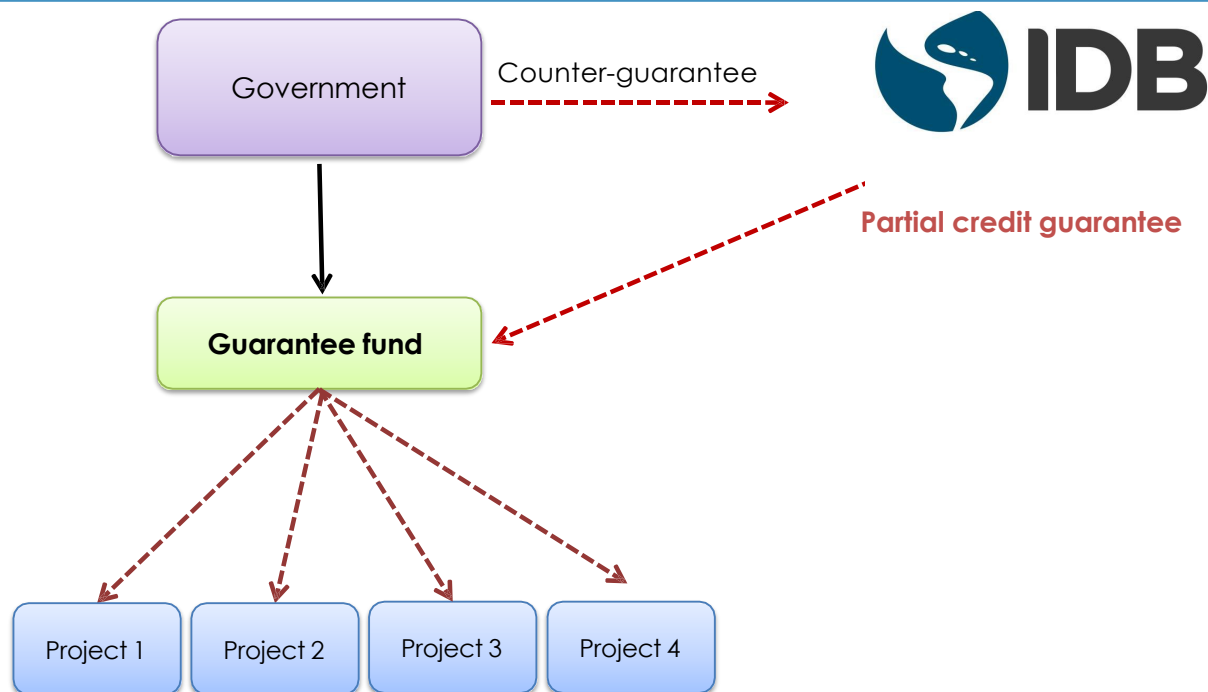
Source: Andrade (2015).

example, IDB Sovereign-Guaranteed (SG) operations have a AAA rating, comply with these conditions, and can cover up to 100 percent of the investment.

In a third option, a partial credit guarantee (with sovereign counter-guarantee) can be used to support, counter-guarantee, or credit enhance a PPP guarantee fund, which helps finance different projects. This AAA guarantee augments the efficiency of the fund with respect to a situation in which the sovereign is the guarantor or the source of funding of the fund. When the government funds the PPP guarantee fund directly, its risk rating is transferred to the rating of the fund. Therefore, an MDB AAA guarantee helps effectively achieve higher efficiency. An additional advantage in the case of an IDB guarantee is that it supports the structuring and due diligence of PPP guarantee funds (Figure 23).

The same reasoning applies when state-owned banks support PPPs by providing financial guarantees (first

FIGURE 23. MDBS PARTIAL CREDIT GUARANTEE FOR PPP GUARANTEE FUNDS



Source: Andrade (2015).

loss, *pari passu*, etc.) and guarantee funds. Although these banks have a comparative advantage to manage a portfolio of projects, they are usually not investment graded. Therefore, having a guarantee from a state-owned bank plus an MDB guarantee provides the extra support.

The IDB offers a Flexible Guarantee Instrument for Sovereign-Guaranteed Operations that covers political and credit risks. This instrument can be structured as an investment project or policy-based intervention, it can be denominated in local currency, and it allows a flexible repayment profile that is adapted to

each project. Coverage may vary up to 100 percent (full wrap), and the loan is disbursed as a guarantee. This type of instrument can be used as a guarantee facility for a portfolio of sub-projects.

In addition to financial benefits, IDB guarantee instruments have non-financial benefits, such as: (i) support for an adequate identification, accounting, reporting, and management of CLs derived from PPPs, (ii) ongoing support and sector dialogue regarding the legal and regulatory framework and institutional strengthening, and (iii) demonstration effects through economies of learning and capital markets expansion.

CONCLUSIONS

Dealing with PPPs and their related sovereign risks and CLs is challenging. Risks need to be identified and CLs must be estimated and monitored. The broad scope of potential risks and contingencies makes this task particularly complex. Furthermore, as CLs are by definition not easily quantified, their estimation is not simple. Scenarios need to be built and analyzed. Unfortunately, such estimations are not regularly performed, especially with respect to implicit CLs. Lack of information is also a difficulty that must be addressed. However, some progress has been made on the estimation and monitoring of CLs in the region, and new instruments are available (e.g., toolkit for the identification, estimation, monitoring, and exposure of CLs).

The institutional framework also plays an important role. The institutional setting is the starting point for any discussion of CLs from PPPs and is considered essential for liability management. The institutional capacity of governments to evaluate and manage risks generated by PPPs is central to the successful development of PPP contracts and the mitigation of related risks. Although there is no single organizational model that fits all countries, international and regional experience shows that the MOFs typically play an important role in decision making and approvals at all stages of a PPP project. In recent years, formal PPP units, which in some cases (e.g., Colombia) integrate the MOF, have taken on more responsibility for the technical analysis of PPP projects. In view of the importance of coordination between the different agencies involved in the evaluation and management of risks generated by PPPs, legislation should

explicitly acknowledge the linkages between institutions involved in PPP risks management, taking into account that incentives are not always aligned. This is also difficult to achieve, given the complex political economy considerations surrounding PPPs.

There is still much room for improvement around the registration, budgeting, and reporting on PPPs and their related risks. Accurate accounting and registration of related CLs is a prerequisite to avoid underestimating the risks and costs of PPPs. Although international standards have become more stringent in recent years, there is still a gap between current practices and standard requirements. While stricter reporting practices of CLs has been gradually adopted, MTFFs and fiscal rules do not normally include CLs associated with PPPs, and budgeting is usually limited to the short term or is almost nonexistent.

The management and mitigation of risks related to PPPs should occur throughout the lifecycle of a PPP project, starting from its evaluation up to establishing mechanisms to minimize the costs of the whole portfolio of PPPs underway. Risk management should be part of the planning, design, and execution processes, and policy decisions should reflect the true cost of CLs.

The experiences of many countries in these areas, including a number of countries in the LAC region, have yielded valuable lessons on risks related to PPPs management and mitigation. To improve the management and mitigation of risks related to PPP

contracts, it is recommended that governments move toward the following: (i) establishing a solid regulatory framework, (ii) increasing transparency by disclosing PPP contract information, including public commitments and risk-sharing arrangements, (iii) explicitly acknowledging and addressing as many risks as possible, (iv) performing value for money analyses, (v) improving project selection through competitive processes, (vi) better integrating PPPs into public investment management frameworks to get an overall view of the risks that the government is incurring, (vii) easing access to information by public entities in charge of estimating CLs to better evaluate and monitor them (instituting and consulting a panel of experts could be an alternative when information is missing or delayed), (viii) gradually adopting international standards and more stringent reporting practices, (ix) emphasizing fiscal sustainability and financial risk management from PPPs, (x) strengthening fiscal rules to include CLS related to PPPs and/or establishing risk accounts or contingency funds, (xi) incorporating commitments and risks accruing from PPPs in debt sustainability analyses (including analyzing the sensitivity of fiscal and financial risks factors), and (xii) establishing ceilings on exposure.

The country experiences considered in this paper highlight the current situation of some relatively more developed cases and how they reached that stage of development. They also illustrate the challenges remaining. The experience of Colombia, for example, emphasized the long-term path that was followed in that country. That experience encompassed different stages, which implied diverse types of PPP contracts that evolved toward allocating risks to the party best suited to assume them.

The Turkish approach to PPP projects strikes a balance between ambition and caution. The challenge of the Turkish Treasury is improving risk allocation. Some of the risk mitigation measures it has taken,

such as setting annual budgetary commitment ceilings, assuming only partial obligations, and requiring collateral from the partners of the project company, are instruments that the literature promotes which can be an example to follow. Another of Turkey's challenges is the enactment of a PPP framework law to regulate the attributions and responsibilities of different central government institutions, the development of procedures and workflows for different types of PPPs, and the further development of quantification techniques to estimate CLs. Chile's experience stresses the importance of broader publication and dissemination of information. Another significant lesson from Chile is the practice by the private sector to share with the government not only the eventual losses but also the potential profits.

Both Colombia and Turkey have made important advances in the implementation of mitigation mechanisms by forming contingency funds (Colombia) or escrow accounts (Turkey). These accounts ensure the continuity of PPP projects and address CLs, while minimizing fiscal volatility. These experiences are very important given the increasing use of PPPs in the region and the expectation that they will be used even more frequently in the near future.

Finally, contingent credit lines, insurance, and guarantees can help minimize risks related to PPP projects. Guarantees can be used strategically to foster private investment by targeting better risk allocation and enhancing a country's access to credit. This generates a leverage effect by improving the rating of the guaranteed institution or financial instrument. Given their high AAA standing in credit markets, their understanding of political and credit risks, and their good positioning to assume specific risks, MDBs can play a central role in granting guarantees with developmental purposes. Therefore, MDBs may be highly relevant in promoting the development of appropriate financing solutions that are beyond traditional loans.

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ANNEX

AGENDA: PRESENTERS AND PRESENTATION TOPICS

Public-Private Partnerships (PPPs) Financing and Public Debt Management

Presenters:

Sudarshan Gooptu (Global Lead: Fiscal Policy, Macroeconomics and Fiscal Management Global Practice, World Bank Group). “[PPPs Fiscal and Financial Risk Management: Conceptual Issues, Accounting and Reporting Practices.](#)”

Edgardo Demaestri (Consultant and former Financial Markets Lead Specialist, Inter-American Development Bank). “[PPPs Fiscal and Financial Risk Management Activities: Conceptual Issues and Experiences from LAC Region.](#)”

General Discussion

Moderator: Navita Anganu-Ramroop (Financial Markets Senior Specialist, Inter-American Development Bank).

PPPs and Contingent Liabilities

Presenters:

Lerzan Ülgentürk (Advisor to the General Director, General Directorate of Public Finance, Undersecretariat of Treasury, Turkey). “[PPPs fiscal and financial risk management: the Turkish experience.](#)”

Andres Quevedo Caro (former Deputy Director of Risk, Ministry of Finance, Colombia). “[PPPs fiscal and financial risk management: the Colombian experience.](#)”

General Discussion

Moderator: Ricardo Murillo (Project Manager, DMFAS Programme, United Nation Conference on Trade and Development).

Roundtable: LAC Experiences and Perspectives on PPPs Risk Management

Lead discussant:

Cynthia Moskovits (Consultant, Inter-American Development Bank). “[Proposing Discussion Issues by Wrapping up Previous Presentations.](#)”

Participants:

Victor Gonzalez (Economist, Debt Office, Ministry of Finance, Chile). “[LAC Experiences and Perspectives on PPPs Risk Management: the Chilean case.](#)”

Juan Carlos Quirós Solano (former Director, Public Credit Office, Ministry of Treasury and Public Credit, Costa Rica). “[LAC Experiences and Perspectives on PPPs Risk Management: the case of Costa Rica.](#)”

Rigoberto Romero Flores (former General Director of Public Credit, Honduras). “[LAC Experiences and Perspectives on PPPs Risk Management: the case of Honduras.](#)”

Charlene Soentik (Back Office, Suriname Debt Management Office, Suriname). “[LAC Experiences and Perspectives on PPPs Risk Management: the case of Suriname.](#)”

General Discussion

Moderator: Tomas Bermudez (Country Representative, Country Office in Mexico, Inter-American Development Bank).

Use of Guarantee Instruments for Sovereign Guaranteed Operations

Presenter:

Gabriela Andrade (Financial Markets Senior Specialist, Inter-American Development Bank). “[Development Financing: The Use of Guarantee Instruments.](#)”

General Discussion

Moderator: Claudia Franco (Head, Debt Management Advisory Services, Finance Department, Inter-American Development Bank).

