Inter-American Development Bank

The State as a Reliable Payer

Structuring of Guarantees and Other Payment Instruments to Attract High-Quality Investments in Latin America and the Caribbean

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Discussion Papers
PPP Americas 2021

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Discussion Papers

The PPP Americas 2021 Discussion Papers are a series of documents produced in preparation for the X Edition of PPP Americas, the most important forum on Public-Private Partnerships in Latin America and the Caribbean (LAC), organized every two (2) years by the Inter-American Development Bank (IDB).

As part of the PPP Americas 2021 edition, eight (8) groups of experts, professionals, consultants and academics were directly involved in the planning, identification, structuring and management of PPP projects in different countries. The groups, coordinated by IDB specialists, focused on the main issues in the area, to exchange experiences, discuss success stories and lessons learned in the various projects in the region.

In an open call in March 2020, more than two hundred (200) specialists, professionals and academics from the region applied to participate in the initiative. Over ninety (90) people were selected and collaborated, of more than eleven (11) different nationalities and with extensive experience in the main PPP markets in LAC.

Each topic explored in the groups led to a Discussion Document, compiling the reflections shared by the specialists in their joint discussions between June 2020 and April 2021. In addition, in January 2021, each group of specialists shared their insights with the other groups, to encourage the development of a richer and deeper conversation, and to take advantage of synergies between the different areas.

This initiative aims to help consolidate an environment for the exchange of experiences and best practices in PPPs for the region. Its main purpose is to serve as an input for the discussions that will take place at PPP Americas 2021—where solutions will be proposed in all directions.

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The State as a Reliable Payer

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If, on the one hand, the objective of public-private partnerships (PPPs) is to offer better quality and more cost-effective services to the population, on the other hand, it is up to the Government to understand the needs of an important part of this equation: the private investor. Investors are looking for solid returns that are consistent with their long-term investment, but also confidence that, once they are part of the contract, the return will materialize. Providing legal protection and a stable institutional environment is essential for the continued participation of investors in public-private projects, allowing them to build a portfolio of projects with positive synergies between them. This increases competition and, consequently, the possibility of more beneficial outcomes for the government itself.

The objective of this paper is to discuss mechanisms to increase the reliability of state payments in PPP contracts. First, we identify three *"gates"*, or components, for the investor analysis: (i) who is the contracting entity; (ii) what is the proposed contractual design; and (iii) what is the typical behavior of the regulator in question. In short, the non-opportunistic investor will look for contracting entities that are mature and transparent in their contracting, receivables that are credible, and regulators that objectively respect the provisions of the contract. If the expected payments fail, the investor will activate guarantees, which must be robust, reliable, automatic and easy for the entities to structure legally.

Despite the lack of empirical data demonstrating the impact of guarantees on the cost of financing PPP projects in the region, it is reasonable to assume that guarantees reduce the financers' perception of project risk. However, the limited fiscal capacity of contracting entities to structure guarantees is a clear obstacle to the further development of PPPs in Latin America. Therefore, innovative and creative instruments are needed. Some of the existing options include bonds, tying outside revenues to the project and the use of public assets, as permitted by the legal regulations of each country. This paper seeks to offer some approaches and best practices to make more investments viable in Latin America.

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Acronyms

PPP: Public-Private Partnership
ARTESP: São Paulo State Transport Agency[1] (Brazil)
ARO: Anticipated budget revenue[2] (Brazil)
BANOBRAS: National Bank of Public Works and Services (Mexico)
BANCOMEXT: National Bank of Foreign Trade (Mexico)
IDB: Inter-American Development Bank
WB: World Bank
BRL: Brazilian Reals
CDURP: Urban Development Company of the Porto do Rio de Janeiro Region[3]
CGR: Office of the Comptroller General of the Republic (Chile)
DIPRES: Directorate of Budgets of the Ministry of Finance (Chile)
FII: Infrastructure investment funds
FDN: National Development Finance (Colombia)
FPE: States Participation Fund[4] (Brazil)
FPM: Municipalities Participation Fund[5] (Brazil)
IFC: International Finance Corporation
MGI: Minimum Guaranteed Income (Chile)
IPCA: Extended National Consumer Price Index[6] (Brazil)
IPSAS: International Public Sector Accounting Standards[7]
BGA: Budget Guidelines Act[8] (Brazil)
LINDB: Law of Introduction to the Rules of Brazilian Law[9] (Brazil)
LOA: Annual Budget Law[10] (Brazil)
LRF: Fiscal Responsibility Law[11] (Brazil)
MDB: Multilateral Development Bank[12]
MIGA: Multilateral Investment Guarantee Agency[13]
GDP: Gross Domestic Product
PPA: Multi-year Plan[14] (Brazil)
PSP: Projects for Service Provision (Mexico)
NCR: Net Current Revenue[15] (Brazil)

[1] Agência de Transporte do Estado de São Paulo
[2] Antecipação de receitas orçamentárias
[3] Companhia de Desenvolvimento Urbano da Região do Porto do Rio Janeiro (Brazil)
[4] Fundo de Participação dos Estados (Brazil)
[5] Fundo de Participação dos Municípios (Brazil)
[6] Índice Geral de Preços ao Consumidor
[7] International Public Sector Accounting Standards
[8] Lei de Diretrizes Orçamentárias
[9] Lei de Introdução às Normas do Direito Brasileiro
[10] Lei Orçamentária
[11] Lei de Responsabilidade Fiscal
[12] Multilateral Development Bank
[13] Multilateral Investment Guarantee Agency
[14] Plano Plurianual
[15] Receita Corrente Líquida

SEDAPAL: Lima Potable Water and Sewerage Service (Peru)
STN: National Treasury Secretariat[16] (Brazil)
TRM: Representative Market Rate (Peso per dollar) (Colombia)
USD: U.S. Dollars

[16] Secretaria do Tesouro Nacional

1. Introduction

The benefits that the adoption of sponsored concessions and public-private partnerships[17] bring to infrastructure development are undeniable, especially in developing countries. In addition to allowing the experience of private partners to translate into project efficiency, whether in the construction phase or in the operation phase, these mechanisms are an important alternative for governments to make investments that would be difficult to enable with public capital alone. The structuring of sound operations by the contracting entity results in greater attractiveness for the project, lower perception of risk and, consequently, lower financing costs.

Structuring a solid operation means developing contractual instruments that guarantee or give greater security to the private partner with respect to the fulfillment of the financial obligations assumed by the public entity. From the investor's point of view, the fiscal capacity of the national or subnational entity to meet its long-term obligations under its concession contracts is a pressing concern. Therefore, this panel proposes reflecting on the topic, with the aim of increasing the chances of success of Latin American PPPs. The description of the PPP Americas 2021 theme, according to the IDB, is as follows:

> *"One of the issues that reduces the Economic Value (or VfM) of projects is the perception of governments' failure to meet payments in PPP projects. The challenge would be to find a solution to reduce this risk without substantially increasing the cost of the project for the State."*

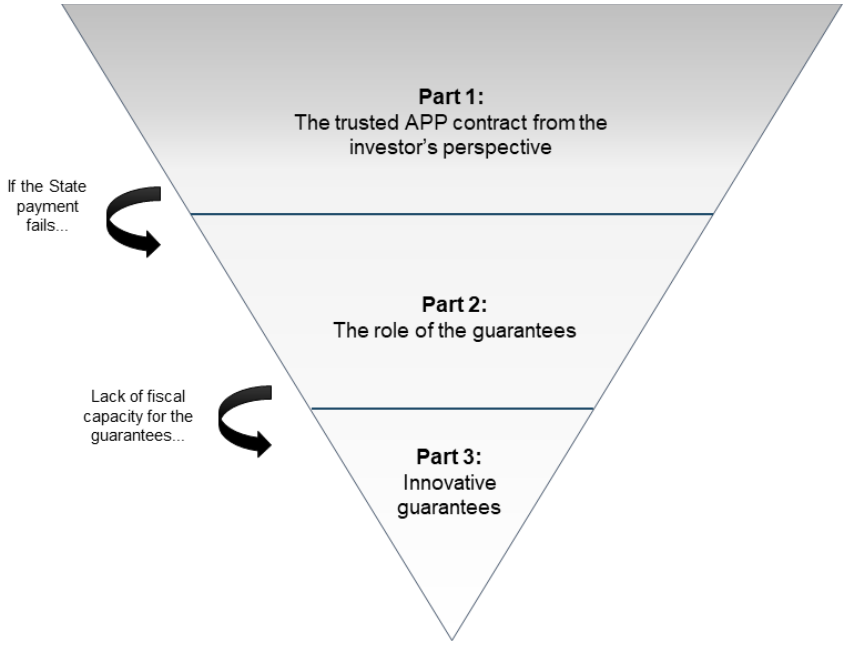
This theme for PPP Americas 2021, "Reliability of State Payments", was then divided into three Parts or Challenges, namely:

- **Challenge 1:** Investors' decision "*Gates*": the reliable PPP contract
- **Challenge 2:** The role and types of guarantees
- **Challenge 3:** Innovative guarantees vis-à-vis the State's fiscal capacity

Starting with a discussion of what makes a good PPP contract from the investor's point of view, in Part 1 we set out to discuss the regulatory, institutional, and contractual framework that arouses investor interest in participating in a PPP project in Latin America. The framework used is that of "decision *gates*", i.e., key analyses in the investor's journey that lead them to trust the payment structure proposed by the contracting entity.

[17] In this paper, we use the terms public-private partnerships (PPPs) and concessions interchangeably, understood as a mechanism that allows private investment in public economic or social infrastructure through a "long-term contract [...] for providing a public asset or service [...] in which the private party bears significant risk and management responsibility, and remuneration is linked to performance" (WB PPP Reference Guide).

- **Figure 1 -** *Structure of the Discussion Paper*



However, even if the basis of the PPP contract is sound and indicates good progress, the State payment may fail for a number of reasons. In this case, it is important to have guarantee structures in place to support the contract. Part 2 of the Paper discusses types of guarantees and their most important features conceptually. Finally, it will also analyze how these structures can be beneficial from a financing perspective, as they help to reduce the risk associated with the project for both equity and debt investors.

Last but not least, contracting entities, both in Brazil and in several other Latin American countries, have financial difficulties in providing resources to guarantee structures. This became even more latent after the COVID-19 crisis. Therefore, the group discusses non-traditional guarantee structures, i.e. those that do not depend on significant contributions from the State. Examples include securitization of debt or other financial flows that are not directly related to the PPP project.

2. Investors' Decision *"Gates"*

A PPP, as in any infrastructure development model, is structured through the development of complex procedures and several phases. As investors are looking for solid returns compatible with their long-term investment, providing legal certainty is essential for the successive participation of private actors in these projects.

During the search for infrastructure investment opportunities in partnership with the government, we identify three "gates", or components, for the investor's decision: (i) the contracting entity; (ii) the proposed contract design; and (iii) the regulator's behavior. At the outset, we identify that the investor will take into account the performance history of the entity proposing the PPP in relation to its past contracts. Once the entity reliability screen is completed, the analysis moves on to the contract and the mechanisms that ensure payment reliability. Finally, the regulator's behavior will also determine to a large extent the fluidity of the contract and the transparency of the private partner's access to the payments due to it under the contract.

2.1. The Contracting Entity

The investor analyzes the competitive potential of a given location compared to the many other locations in which it may invest. This means it does not perceive a PPP project in isolation, but its entire context. When competing for investment with other emerging markets, Latin American governments must offer a contractual structure that is attractive compared to other regions. Investors are generally risk-averse, and the perception of risk can significantly alter the return required by the investor. Therefore, in addition to attractive contract structures, a good track record of contract compliance by an entity helps to increase the potential investor base for PPP projects. However, some LAC contracting entities still fail to meet their contractual obligations too often (delivery of land, rights of way, relocation of interferences, etc.).

Rating agencies are an important source of information for investors, especially foreign investors. The ability to comply with and enforce decisions is implicit in the rating that the country or subnational entity receives. It is important to remember that the risk rating of the national entity has a direct impact on subnational entities, since the latter's rating is generally not higher than the former's ("*sovereign ceiling rule*"[18]). Therefore, national and subnational entities must work together to improve the country's good image for foreign investors.

This does not mean that subnational entities cannot be creative and insert contractual provisions that mitigate the perception of risk generated by national policies. An example is the contract for

[18] Until 2001, the major rating agencies did not rate a subnational government above the sovereign rating. Since 2001, rating agencies analyze each situation individually to determine whether certain subnational securities are eligible to exceed the country's ceiling (Liu and Tan, 2009).

the “Centro Oeste Paulista” Highway in Brazil, signed between the São Paulo State Transport Agency (ARTESP) and the concessionaire Entrevias, and its attempt to reduce exchange rate risk (Coimbra, 2017). In Brazil, monetary policy is the responsibility of the Union and there is no interference by the States. Then, as part of the variable subsidy, a liquidity “cushion” was built that incorporates the exchange rate volatility risk. ARTESP assumes part of the exchange risk, together with the private partner.

Based on the experience of highway concession contracts in the State of São Paulo, the State of Bahia, also in Brazil, adopted a similar mechanism in the light rail and Salvador-Itaparica bridge contracts, guaranteeing an amount from which the exchange rate variation of the financing contracts contracted by the concessionaires would be compensated (Government of the State of Bahia, 2019). This amount was calculated as follows: the variation in inflation according to the Extended National Consumer Price Index (IPCA) versus the exchange rate variation over a 25-year period was calculated, and it was observed that in the long term these variations tend to converge. However, a normal distribution curve was plotted from the periods of variation and a 95% confidence interval was assigned. The values that were not within this range correspond to the maximum value from which the repayment will take place. The intention was to attract international investors or raise funds in foreign currency. In fact, the winners of the bid for the two aforementioned projects are Chinese.

In addition, in order to mitigate the exchange rate risk of transport infrastructure PPP projects, Colombia’s National Infrastructure Agency allowed the first fourth-generation (4G) road projects to be backed with future dollar revenues (ALEMÁN *et al.*, 2019). Bidders for the first and second wave of 4G projects were able to request that part of the remuneration be calculated in dollars if this was set out in the tender documentation. Accordingly, the remuneration was calculated based on the exchange rate at the time of payment.

The project that was authorized to offer the highest percentage of future remuneration in dollars was “Santana - Mocoa - Neiva”, with a maximum percentage of 58% of the remuneration in dollars. The project that requested the highest repayment in dollars was “Villavicencio - Yopal”, in which the concessionaire requested that 52.8% of the repayment amount be paid in dollars, while the previously authorized percentage was 54%. DGPPN table No. 34/2016 from CONFIS[19], which is presented below, provides more information.

[19] Superior Council of Fiscal Policy, a body attached to the Ministry of Finance and Public Credit, in charge of directing Fiscal Policy and coordinating the Budgetary System.

- **Table1:** *DGPPN No. 34/2016 of September 23, 2016*

Proyectos incluidos en cupo APP Transporte	% Dólares Autorizado	% Dólares Solicitado	Fecha de Referencia TRM Garantizada	TRM Garantizada (Pesos)	Distribuición Dólares Aceptada	
Buga - Loboguerrero	0.0%	0.0%	N/A	0.00	N/A	N/A
Zipaquirá - Palenque	0.0%	0.0%	N/A	0.00	N/A	N/A
Ocaña - Gamarra * OLA 1	0.0%	0.0%	N/A	0.00	N/A	N/A
Girardot - Honda - Puerto Salgar OLA 1	34.0%	33.997%	11/04/2014	1,954.08	X	Fecha oferta
Pacífico 1 OLA 1	27.0%	18.41%	15/04/2014	1,945.81	X	Fecha oferta
Pacífico 2 OLA 2	50.0%	50.0%	29/04/2014	1,930.42	X	Fecha oferta
Cartagena - Barranquilla OLA 1	32.0%	31.998%	28/05/2014	1,916.73	X	Fecha oferta
Pacífico 3 OLA 3	49.0%	49.0%	27/05/2014	1,916.73	X	Fecha oferta
Perimetral OLA 1	32.0%	32.0%	30/05/2014	1,915.11	X	Fecha oferta
Conexión Norte OLA 1	37.0%	36.8%	11/09/2014	1,932.69	X	Fecha oferta
Magdalena 2 OLA 1	24.0%	24.0%	16/09/2014	1,949.71	X	Fecha oferta
Mulaló - Loboguerrero OLA 1	31.0%	31.0%	31/10/2014	2,059.15	X	Fecha oferta
Puerta de Hierro - Cruz del Viso OLA 2	0.0%	0.0%	10/01/2017	0.00	N/A	Fecha de cierre financiero
Transversal del Sisga OLA 2	0.0%	0.0%	N/A	0.00	N/A	Fecha de cierre financiero
Villavicencio - Yopal OLA 2	54.0%	52.8%	01/07/2016	2,973.79	Pendiente (No aprobado)	Fecha de cierre financiero
Santana - Mocoa - Neiva OLA 2	58.0%	40.0%	14/09/2016	2,920.76	X	Fecha de cierre financiero
Santander de Quilichao - Popayán OLA 2	51.0%	46.2%	18/08/2016	2,997.48	X	Fecha de cierre financiero
Mar 1 OLA 2	39.0%	39.0%	09/09/2016	2,924.25	X	Fecha de cierre financiero
Barrancabermeja - Bucaramanga OLA 2	51.0%	0.0%	09/09/2016	2,924.25	N/A	Fecha de cierre financiero
Pasto - Rumichaca OLA 2	46.0%	46.0%	21/09/2016	2,918.78	X	Fecha de cierre financiero
Mar 2 OLA 2	42.0%	40.0%	08/12/2016	3,045.13	Pendiente	Fecha de cierre financiero
Bucamaranga - Pamplona OLA 3	0.0%	0.0%	N/A	0.00	N/A	Fecha de cierre financiero
Pamplona - Cúcuta OLA 3	0.0%	0.0%	N/A	0.00	N/A	Fecha de cierre financiero
Rio Magdalena - Cormagdalena	0.0%	0.0%	N/A	0.00	N/A	Fecha de cierre financiero

Source: Ministry of Finance and Public Credit of Colombia

After the country risk analysis, it is necessary for the contracting entity to assess the culture of dialogue between public and private actors, from the design and structuring phase of the projects. At this point, the existence of a solid project portfolio, transparent bidding processes, legal structures that define the procedures for structuring partnerships and mechanisms for receiving private sector contributions differentiate entities that are more or less open to dialogue. It is still very common to find entities that consider that no private party can perform State functions, which prevents consultants or specialized private actors from collaborating with the structuring process, thus generating unattractive projects. However, the private sector needs to receive more incentives and be willing to collaborate, providing intelligence, knowledge and market vision so that projects are managed to align public and private interests.[20]

The 2018 Bogotá Metro selection process had four phases that allowed for greater dialogue between the public sector and private sector companies interested in the process: (i) expression of interest, (ii) pre-qualification, (iii) competitive dialogue, and (iv) bidding (Metro de Bogotá, 2018). Although by law only the bidding is required, the additional phases created important spaces that allowed interested parties to submit comments on the bidding documents, as well as on the technical and financial components of the Project.

Many precautions must be taken during project structuring, and effective contractual management is necessary to ensure that it progresses well. During the execution of PPP contracts, the greater and better the management of the Risk Matrix and the public and private sector obligations under

[20] On healthy business relationships, see *"Getting to Yes*: *Negotiating Agreement Without Giving"* (Fisher, Roger; Ury, William) and *"Give or Take"* (Grant, Adam).

the contract, the more positive the investor's perception will be. In some places in Latin America, once the project contract is awarded, there are no sectoral teams or units with the specific knowledge necessary to supervise the contract (budgetary commitments, technical obligations to meet, relations with other government units, etc.). In these cases, it is important to set up sectoral project monitoring units or, at the very least, target and results management dashboards.

Just as negotiations are desirable when drafting contracts, renegotiating contracts also requires dialogue (see theme 2.3 for more details on this subject). The investor will look at the entity's track record of renegotiations: whether disputes are resolved amicably, what resolution structures are used, and whether disputes end up being referred to the ordinary courts or to arbitration. Unfortunately, Latin American countries have a history of few consensual outcomes[21]. Consensus is not yet considered a tool for the good management of PPP contracts. The litigious logic, in which most claims are taken to the judiciary or to arbitration procedures, keeps the investor at a distance, creating distrust for future interactions[22]. This only highlights the importance of continuing to implement alternative dispute resolution mechanisms, even though these are always in a constant process of improvement. Amicable conciliation or amicable settlement mechanisms, such as '*dispute boards'* used on line 1 of the Bogotá Metro, and the '*dispute adjudication board', used in the El Dorado Airport concession (Durán, 2016)* are less costly and faster procedural options that may be provided for in the contract, if permitted by national law.

From the point of view of the public sector, there are implicit benefits in taking claims to the judiciary. The precautionary principle extends the payment deadline for the State. The State is also seen as a legitimate sponsor of the public interest. However, there are also private partners who participate in tenders with an outdated "contract" mentality, competing for a lower price and then going to court and asking for an increase in the scope and values of the contract. Both the public and private sectors must evolve towards cooperation.

It is worth noting that hostile behavior by specific subnational entities can also damage the image of a country as a whole. The investor is often unable to distinguish the nuances within the country, seeing it as a major obstacle to making their investments.[23] One example is the "encampación" or expropriation (taking ownership of an asset by the government, through compensation to be paid to the concessionaire) of the Yellow Line in Rio de Janeiro, presented in the table below, which may affect Brazil's attractiveness for highway investments. Brazil and Latin America need, more than ever, to reinforce the image that their leaders behave properly, and that once the infrastructure is in place, they will not unfairly exclude private partners from the contractual relationship.

[21] There is no consistent database of the entire portfolio of PPP projects in Latin America (contracted, under construction, in operation) to provide evidence to support this claim, but this is a common understanding among the PPP practitioners with whom we interacted during the preparation of this paper.
[22] Although arbitration is often provided for in PPP contracts, there are limitations on the content of arbitration decisions. In addition, this mechanism is used when the possibilities of bilateral negotiation have already been exhausted, requiring the binding decision of a third party external to the parties.
[23] The search for local partners by investors helps to eliminate blind spots but creates other types of risk for the investor. In some cases, a trusted local partner is not available.

Example: "Excampación" or expropriation of the Yellow Line in Rio de Janeiro

The term "encampación", in Brazilian legal jargon (or expropriation), refers to the cancellation of a contract (concession or lease) in a discretionary manner by the government and without the need for a contractual provision, returning the administration of the road to the granting authority (Moreira, 1979). In October 2019, Rio de Janeiro City Hall took over the concession of the Línea Amarela (Yellow Line), a 17.4 km road that connects Barra da Tijuca with downtown and Galeão International Airport. According to the City Hall, the concessionaire Lamsa, which has managed the road since 1997, made profits not foreseen in the contract given the additional number of vehicles traveling through its tolls (Callegari et al., 2019).

The case is still in dispute and, therefore, the merits of each side's arguments should become clearer at the end of the proceedings. Meanwhile, the Yellow Line concession contract in Rio de Janeiro is an example of how decisions related to specific subnational entities can impact the perception of the risk of other subnational entities and of the country as a potential investment destination. In Brazil, there are two possibilities for unilateral and early termination of a public service concession: forfeiture and expropriation. As Barcelos (2020) explains, in the first case, the granting authority investigates and demonstrates, in a procedure in which it ensures full defense, that the concessionaire failed to comply with its obligations. In the second case, for reasons of public interest, with the corresponding legal authorization and after paying compensation, the granting authority terminates the contractual relationship, assuming the provision of the services itself.

Two days after the announcement of the takeover, the mayor of Rio de Janeiro ordered the demolition of the toll booths (Callegari et al, 2019). The Justice returned the concession to the concessionaire Lamsa, since there was no legal authorization for the Mayor's action. In November of the same year, the municipal councilors enacted a municipal law authorizing the takeover. The law determines that the compensation owed to the private partner is considered paid, according to the calculations of the Executive, the Legislature and the Court of Audit. However, Rio City Hall had not yet clarified how a guarantee would be granted in case the Court were to decide that Lamsa was entitled to compensation for the investments made.

Until this case, it was expected that the judiciary would continue to act in accordance with previous decisions, in which the legal requirements for expropriation to go forward were met.

In fact, the justice of Rio de Janeiro issued precautionary measures that suspended the "expropriation". But at federal level, the Superior Court of Justice suspended the interim measures, which came as a relative surprise: the Chief Justice signed the act of expropriation for the contract, indicating that it was no longer equivalent to what was established in the tender documents. Recently, Minister Luiz Fux of Brazil's Supreme Federal Court suspended the takeover of the Yellow Line by the city of Rio de Janeiro and ordered a conciliation hearing between the parties (Rosas, 2021).

This example is concerning as it creates a precedent for breach of contract, i.e. where the legitimacy of the procedures set out in the contract is not recognized. It is aggravated by the fact that the decision reached federal level. We hope that the existing legal barriers against expropriation of assets in Brazil and Latin America continue to function properly, as they indirectly also point to the reliability of the payment terms and the contract as a whole.

Finally, the assessment of the procuring entity's risk involves the fiscal capacity of the national or subnational entity to meet its long-term obligations under PPP contracts. For the investor, it is essential to analyze the legal and institutional framework of each country in terms of accounting and control of the obligations assumed in long-term contracts.

According to the study presented by Berger and Sanchez (2018) at the Fifth Focal Conference 2018, some of the most active PPP countries in Latin America (Brazil, Chile, Colombia, Peru) are advanced in the use of IPSAS accounting standard ("*International Public Sector Accounting Standards*") for recording their obligations associated with PPP contracts. In the study conducted, these four countries have implemented or are in the process of implementing accounting standards in accordance with international standards, with a high degree of compliance (relatively low level of adaptation or adjustments). Below, we explore how legislation in some Latin American countries addresses the tax and accounting aspects of PPP contracts.

According to an analysis by Vieira (2016), the phenomenon of "non-budgeting" is the greatest risk from a public accounts point of view, defined as the "exclusion of accounts that should be included in the State Budget proposal". In other words, "non-budgeting" is the "omission of expenditures, through the creation of entities, such as public companies, foundations and others, or through the execution of PPP contracts that are outside the State Budget". This phenomenon was strongly observed in Portugal, where "non-budgeting" was the instrument used to "organize" the public accounts in view of the debt requirements of European bodies. Vieira (2016) is emphatic in stating that, in fact, the Portuguese case is more about creativity than transparency.

Our recommendation is that if the reputation of the national entity is the gateway to foreign investment, trust should be the watchword at the subnational level. Investors around the world are looking to emerging countries for new capital-intensive projects and consistent financial returns. Investors are risk-averse and high transaction costs will, in one way or another, raise the cost of the service if provided by the private sector, to the Government.

2.1.1. Fiscal control of PPPs in Latin America

The Brazilian case

The Fiscal Responsibility Law (LRF), or Complementary Law No. 101 (Brazil, 2000), contains a series of provisions on how the Union, States and Municipalities should control their finances, valuing financial balance and sustainability. With its implementation, the Law brought a new dynamic to the financial and fiscal management of federal entities. The spending and borrowing limits are set according to the amount of taxes collected by each entity. According to the National Treasury Secretariat, the LRF was inspired by models that proved to be efficient in the transparent management of public accounts, such as those of the United States and New Zealand (STN, 2020).

The LRF requires the estimated financial budget impact to be presented in the years in which the PPP contract must be in force. However, the LRF has not proved sufficient to record commitments to PPPs in a clear and transparent manner. Law No. 11.079/2004, known as the PPP Law (Brazil, 2004), has this concern at its core. This Law seeks to mitigate two main risks. The first is the irresponsible commitment of future public resources, either by making invaluable commitments or by choosing non-priority projects. This concern about future revenue commitment arises from the logic of the contracting model. Under the terms of subparagraph I of Article 5 of Law 11.079/04, contracts may be signed for a term of up to 35 years.

The main control is the limit of 5% of total expenditure for this form of procurement in relation to the Net Current Revenue (NCR) of the respective entity. Thus, the creation of new expenditure related to the payment of the public consideration by the contracting entities is restricted. The PPP Law also imposes strict fiscal accountability requirements (subparagraph IV of Article 4, Articles 10, 22 and 28) and delegates to the STN the power to audit subnational entities, which are obliged to submit reports on “current expenditures” derived from the package[24].

The second risk is that, in haste or due to a lack of technical capacity, management commits itself to poorly planned and structured long-term contracts. Businesses of this type are very complex, due to the number of variables involved (determination of the purpose, identification of risks and their attribution to the parties, choice of evaluation criteria, etc.) and the failures that can occur over time. The PPP Law requires a prior public discussion of projects (subparagraph VI of Article 10) and creates a centralized management body to define priorities and evaluate the economic

[24] The STN Ordinance No. 614/2006 defined the parameters in which the expenditures with PPPs would be accounted for indebtedness purposes, and stated that "public entities shall provision and include in their balance sheets, in the form of this article, the amounts of risks assumed in as a result of guarantees granted to the private partner or for its benefit”. Finally, the standard indicated the need to record contingent assets and liabilities. Over time, however, the rules of the Accounting Manual Applied to the Public Sector – MCASP came into conflict with the provisions of the STN Ordinance No. 614, when the MCASP started to follow the parameters of IPSAS 32. In a practical way, PPPs currently do not affect the “consolidated public debt” threshold and, therefore, are not limited by the indebtedness controls of the Fiscal Responsibility Law. PPPs are now limited only by the parameter of 1% or 5% of Net Current Revenue, as provided, respectively, in the articles 22 and 28 of the Federal PPP Law. For more information, visit https://www.tesourotransparente.gov.br/publicacoes/manual-de-contabilidade-aplicada-ao-setor-publico-mcasp/2019/26 .

and financial possibilities of federal contracts, as well as to monitor their implementation (Articles 14 and 15). In Article 4, the Law also requires that, when considering a PPP contract versus a common administrative contract, the burdens and advantages of each must be compared, on the basis of sound elements.

The limitation established in Article 28 of the same Law aims to prevent PPPs from being used as an instrument to hide public debt. This concern is largely due to the fact that PPP contracts are not, as a rule, classified as credit (debt) transactions. This feature evades the provisions of the Fiscal Responsibility Law (Articles 30 and 32, subparagraph III) and resolutions issued by the Federal Senate, which establish limits on public debt (particularly Resolutions 40 and 43).

As they are long-term projects, no PPP project can be implemented without prior inclusion in the Multi-Year Plan (PPA) and the Budget Guidelines Act (LDO). These are the budgetary instruments available in Brazil for the short and medium term. Projected expenditures for the following year must also be provided for in specific budget lines established in the Annual Budget Law (LOA). The Legislature is responsible for approving the PPA, LDO and LOA, which remains a form of control over PPP programs.

In addition, the tax studies required for any PPP procurement must demonstrate that the expenditures created or incremental expenditures will not affect the fiscal outcome targets set out in the LDO. If there are economic effects in the following periods, they should be offset by permanent increases in revenues or permanent reductions in other expenses.

Finally, an accounting consideration is worthwhile. For the purposes of verifying PPP expenditure limits, all expenditure incurred, whether current or capital, is considered current expenditure. Another relevant concept refers to contingent liabilities, which are intrinsically linked to the risks assumed in the PPP contract. According to the Accounting Pronouncements Committee (CPC, 2009), these are defined as:

> (a) a possible obligation that results from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or
>
> (b) a present obligation that arises from past events, but is not recognized because:
>
> > (i) it is unlikely that an outflow of funds incorporating economic benefits or potential services will be required to settle the obligation; or
> >
> > (ii) the amount of the obligation cannot be measured with sufficient reliability.

If the risk materializes, the respective payment obligation is recognized. The amount is then written off from the allowance account, and then determined in the NCR commitment calculation. However, if it does not materialize, the provision is reversed.

The Colombian case

In Colombia, the public accounting system also regulates the accounting treatment of obligations assumed in long-term contracts and contingent liabilities. The General Public Accounting Plan was developed with the objective of allowing policies for the efficient management of public spending, aimed at meeting the fiscal goals and objectives of the State. In the context of the General Public Accounting Plan, future financial resources for the coming years must be considered, so that they are incorporated into the budget when these commitments materialize (Ministry of Finance and Public Credit, 2010). In other words, future disbursements are incorporated into the annual budgets subsequent to the concluded contract, in order to secure the necessary resources for the implementation of special projects. In this way, this system of accounts provides information on ongoing macro projects with a long-term execution timeframe.

To maintain more effective control, it is necessary for the sector or public agency responsible for the contract to update such commitments annually (e.g. as a result of contractual changes). State entities must also value the contingent liabilities associated with the project, which is then approved by the Ministry of Finance and Public Credit. Based on this valuation, the amount of the contributions to be made to the State contingency fund is established, the purpose of which is to cover the value of possible contingent liabilities of each project in advance. This means that private investors are assured a certain legal security and that there is efficient control over public finances, which help to mitigate the risk of non-payment of the commitments assumed.

The Chilean case

In the case of Chile, long-term financial commitments arising from the concession of public works, whether contingent or non-contingent, are recognized off-balance sheet. However, according to paragraph 8 of Article 63 of the Constitution, the creation of economic commitments arising from the concession system requires the sanction of a specific law in the event that State resources are committed.

Seeking to comply with the constitutional provision, the Concessions Law (Chile, 2010) established that factors such as “State subsidies to the bidder” and “revenues guaranteed by the State” are part of the economic regime of the concession and can be included in the bidding conditions. Accordingly, direct payments from the State and the Guaranteed Minimum Income (“Guaranteed Minimum Income, GMI”) are legally allowed to be included in the concession contracts. The law also establishes that, in the event that the concessionaire is entitled to economic compensation, due to an increase in the levels of services originally agreed upon or for other reasons of public interest, this compensation may be expressed in the form of subsidies provided by the State.

Although the Concessions Law does not describe the types of commitments that the State makes to the concessionaires, the following types of commitments can be derived from this act and the instruments used by the Budget Directorate of the Ministry of Finance (DIPRES):

- Subsidy or payment commitments made by the State to the concessionaires in the respective concession contracts.
- Cash commitments with concession companies arising from changes in the concession contracts; such contract renegotiations are known as “Supplemental Agreements”.
- Contingent liabilities.
- Guaranteed Minimum Income (GMI).

In relation to the Guaranteed Minimum Income, its present value is estimated and, as mentioned at the beginning, it is not recorded in the country’s general accounts. However, this lack of information in the accounting system was gradually remedied with the development of methodologies to estimate the amount expected to be paid. The payment of the GMI will depend mainly on the behavior of demand, a situation that cannot be determined in advance, thus constituting a contingent liability (Ministry of Finance and Public Credit, 2010).

The instructions of the Office of the Comptroller General of the Republic (CGR) for the treatment of investments indicate that: “Economic events related to the costs of projects intended for institutional activity or for the formation of national assets for public use should be accounted for in special asset accounts that recognize during the year the costs incurred in the project" (General Comptroller of the Republic, 2015). These disbursements are recorded on the balance sheet as capital expenditures until the work is completed and, at the end of the project, the amount of these disbursements will not be recorded as assets. However, this procedure applies to public works financed from the fiscal budget; there are no specific indications in the case of concession projects.

In summary, in Chile there is no mechanism to account for the value and assets constituted as national assets for public use, which include public works under concession and non-concession (Ministry of Finance and Public Credit, 2010). Certain liabilities are accounted for off-balance sheet (they are not accounted for as debt in the nation’s accounting systems) and are reported at a highly aggregated level in the “Public Finance Report” to support the presentation of the Budget Bill. Therefore, executing infrastructure works through the concession mechanism does not result in any changes to the balance sheet. Although there is no accounting record, there are other mechanisms to quantify the fiscal impacts of the commitments made.

The Mexican case

In Mexico, the legal regulation of Service Provision Projects (PPS) was due to the budgetary restrictions faced by the entities of the Federal Public Administration, making the participation of the social and private sectors essential to ensuring efficient use of federal public spending. The PPS is defined as a long-term service contract between a federal government agency or entity and a provider investor, whereby the provider investor is obligated to provide one or more services, including the provision of investment services (Center for the Study of Public Finance, 2007).

To be considered as such, the PPS must meet the following points:

- To be carried out by means of a long-term service contract and any other legal act necessary to do so;
- The contracted services should enable the contracting agency or entity to better meet the institutional objectives assigned to it;
- These services must be provided with the assets that the provider investor builds or supplies, as required by the respective agency or entity and in accordance with the contract (Ministry of Finance and Public Credit, 2010).

Agencies and entities must specify the services they intend to receive through the implementation of a PPS project, except for public services that, according to the law, must be provided exclusively by the public sector. Before contracting, the agency or entity that intends to execute PPS projects must have the authorization of the Ministry of Finance and Public Credit, which will determine whether the PPS project is a suitable way to obtain the services required by the agency or entity that requested authorization. This determination is based on the analysis of a cost-benefit study and the impact of the payment obligations on public finances.

In relation to payments made under the contract, the regulations establish that the agencies and entities must not make any payment to the investor provider before receiving the services under the contract, except, exceptionally, under the conditions established in the respective contract. Payments made in exchange for services received are recorded as current expenditure. The payments made by the agencies or entities to carry out this acquisition shall be covered by their respective authorized budgets for the corresponding fiscal year and, in no case, shall the acquisition of assets be the main purpose of the contract.

The draft Federal Expenditure Budget should specifically mention contingent commitments arising from long-term service contracts, including annual payment obligations assumed (Vassalo Magro, 2015). The Ministry of Finance may also issue, within its competence, specific provisions related to the accounting and budgetary treatment of the payment of the consideration to the providing investor. In relation to assets, in the event that they belong to the contractor or are leased by the contractor to a third party, other than the contracting entity or entity, the contract may establish the conditions under which this asset will revert to the public entity.

2.2. Contractual Design

Following the analysis of the procuring entity proposing the PPP, the investor will analyze the proposed contract design. In this section, we explore four main aspects that may affect, to a greater or lesser extent, the reliability of State payments from the investor's perspective: (i) payment clauses, (ii) the performance measurement system, (iii) economic and financial rebalancing mechanisms, and (iv) exit clauses. Special attention will be paid to the payment clauses that are directly related to the project's expected financial flows.

Payment clauses

One of the most sensitive points of the project is the payment flows. Concessionaires are particularly concerned about how much money they should receive, how it will be received, and who the payment intermediaries are. The biggest risk is undoubtedly a Government default. In Brazil, the permissiveness of non-compliance is reflected in the General Procurement Law itself (Law No. 8.666/1993): the Law grants the contractor a period of up to 90 days to make the payment, a period that can still be extended depending on the bureaucratic procedures (commit, settle, pay) and the efficiency of each entity. The estimation of the time period for the grantor's performance of obligations is often understood to be purely administrative.

Late payments are a recurrent characteristic of the public-private relationship. In Brazil, according to a study by the National Confederation of Municipalities with 4,258 municipalities in 2018, 50.2% admitted to having late supplier payments (Lima, 2018). The same trend is observed in the other Latin American countries. In some cases, short delays are considered normal and do not result in the requirement to pay applicable penalties for delay or non-compliance. Therefore, contracts with clear timelines and that link the service delivery period, the performance measurement period, and the adjustment and payment period are critical to ensure regular cash flow to the private partner. Finally, legal restrictions, such as the inalienability of public property and the need to follow a chronological order for the payment of unappealable judgments, hinder the credibility of public payments.

One way to reduce this perception of risk by investors is to build payment streams independent of the Public Administration. In the case of regular or habitual flows, user payments are a very common option, as the default history is predictable and evasion risks can be measured. In the end, service may be denied to a user due to non-payment. One example is the blocking of the user at the toll booth, forcing them to pay.

But even if payment is made by the user, the risk of non-payment increases if the person responsible for collecting the revenue is different from the service provider. In urban transport and mobility systems, it is very common to have one collection operator and several contracted concessionaires who will receive payments according to their participation in the system. Interface risks are also observed, in which different collection mechanisms are used in different contracts of the concessionaire's portfolio. An example in transport systems is automatic payments, which are available on some roads but not on others.

However, when not all sources of income come from users, the contracting entity is required to contribute resources. This is the case for social infrastructure, such as hospitals and parks. Even for those cases, there are mechanisms that guarantee greater payment reliability. For example, the appointment of a neutral agent with autonomy to make payments following a "cash-flow waterfall", or the creation of linked accounts, where the funds for the payment of the contract are deposited in a special account and automatically transferred to the private one when due.

Overall, we identified four key features for the payment system to increase the reliability of the contract for investors:

- Predictable: allows investors to measure the liquidity risk associated with defaults;
- Pre-approved: State payments should be structured to avoid the need for additional politically risky approvals;
- Attainable by financiers: creditors should have the ability to pledge or access relatively easily, to take possession and to exercise their rights, including partial control of accounts and the ability to instruct the use of specific account resources, without the need for expedited credit operations or approvals from controlling entities;[25]
- Compensable: in the event of default, there must be compensation for the private partner, as set out in the contract, in addition to protections related to constitutional claims and invalidity of arbitration reports, for example.

The structure of the variable part of the prescription may also increase the perception of risk by potential concessionaires. In the road payment system in Colombia, for example, revenues are made up of the toll, direct contributions from the contracting entity and a revenue supplement if the minimum payment is not reached. When the actual amount collected is less than the stipulated collection, the additional payment is made through the extension of the concession period, toll increases, or direct payment through the national budget (Lizana, 2002) but, in general, increasing the concessionaire's liquidity risk due to the time interval between service provision and actual collection.

As for the extraordinary payments under the contract, these have provision risk, related to the budget of each contracting entity. It is not something related to the contract itself, but to the institutional framework on which the contract is based. Despite the relatively good provisioning of regular payments in Latin America (see Table: Fiscal control of PPPs in Latin America), there is a higher risk of non-payment in case of unforeseen events. In the midst of the COVID-19 pandemic, for example, emotional responses were observed in many Latin American countries, such as the suspension of tolls on concession urban roads and highways in Peru through Law No. 31.018/2020 (Peru, 2020). There is a perception that this is detrimental to the future sustainability of the projects. The increased participation of contracting entities in international investment treaties is one way to allow local concessionaires to feel more protected from such events.

[25] Although intervention is a possibility, it is understood in the market to be inefficient, as the operation of the PPP is not the ultimate activity of the financier. Financiers should also be important players in the contract.

Performance measurement systems

In concession and PPP contracts, performance obligations are of great relevance, since the search for greater efficiency in the execution of the contract is related to the transfer of autonomy to the concessionaire for the choice and management of resources in order to produce the expected results. By establishing service levels and standards and linking them to the concessionaire's remuneration, the contract creates a performance compensation system capable of generating efficiency in contracting. The concessionaire will aim for the best results at the lowest possible cost.

Undoubtedly, the main incentive to maintain the quality of service provision is in linking the public payment to a variable component, conditional on performance and quality levels. This is particularly important in contracts where the concessionaire's only source of income is the amount received from the grantor. In this regard, it is important to bear in mind that the maximum discount rate should not compromise the debt coverage ratio or the quality of the service provided.

Another point of focus that may impact the concessionaire's remuneration is compliance with the performance indicators and the measurement system, that is to say, if the contract is objectively based on performance or if there is room for subjectivity of the public agent. This does not mean that objective measurement systems are always effective. It is difficult to strike an optimal balance between quality and quantity of indicators, and between focus on procedural activities or final activities. Therefore, it is important for countries to have a culture of adopting good practices from past projects and to evaluate performance throughout the life of the project. An interesting case to analyze is that of the Minas Gerais Prison Complex, where the attempt to have a robust measurement system raised complexities that made it difficult to determine the payment.

To control the contractual scope, it is necessary to evaluate the efficiency, performance and achievement of the concessionaire's goals. This often requires a multidisciplinary, specialized and precise technical analysis. In this context, the work of the Independent Verifiers is relevant; they assist in the inspection activity, a state responsibility that cannot be delegated. In addition to the primarily technical nature of these consultancies, the desired neutrality and impartiality in the work of the Independent Verifier can act as a barrier to political use of the performance measurement system.

Performance management is the aspect that most reflects the importance of the work of the Independent Verifiers. Given the complexity of concession and PPP contracts, which have numerous specificities, a specialized independent consultant has better technical expertise to determine the contractually established indicators to measure the quality of services, identify factors for deductions or penalties and make calculations of the consideration owed by the Granting Authority (Marques, 2019). It is also in terms of performance management that risk management, continuous monitoring of the contractual matrix by the Independent Verifier, and conducting periodic reviews to maintain the desired contractual efficiency are included.

The Minas Gerais Prison Complex

In 2009, the Government of Minas Gerais carried out the bidding process and signed a PPP contract with Consórcio Gestores Prisionais Associados S.A. (GPA) with the objective of building and administering the first shared management prison in Brazil. The successful concessionaire is a group of five companies: CCI Construções S.A, Construtora Augusto Velloso S.A., Empresa Tejofran de Saneamento e Serviços, N.F. Motta Construções e Comércio and the National Institute of Penitentiary Administration (INAP). The consortium committed to building the prison's infrastructure from its foundation and to managing it for a period of 27 years, with the possibility of renewing it for another five years (Naves, 2009).

The Prison Complex contract is considered emblematic. As it was a very complex subject, lots of changes were made to the contract during its execution and it was necessary to create a glossary of concepts so that its content would be interpreted in one way by all partners (Correa and Corsi, 2014). The project is regarded as a kind of laboratory for all involved and, therefore, the GPA consortium and the State of Minas Gerais are on a legal and operational learning curve.

As the cost per prisoner in the PPP is more expensive than in the traditional prisons in Minas Gerais, the State investment had to be justified by the guarantee of service quality provided by the GPA Consortium. Therefore, the contract provides for performance indicators that quantitatively measure the level of competence of the concessionaire's processes and infrastructure. The indicators are attested by Accenture, an independent verifier contracted by the State. The verifier performs almost daily work in the infrastructure of the Prison Complex, creating quantitative and qualitative records of each of the 380 performance indicators. In addition, it calculates the value of the compensation paid by the State to the Consortium and assists in resolving potential conflicts and in reviewing the goals of the project's performance indicators.

However, the complexity of the indicators creates bureaucratic hurdles and possible delays in payments each month. As it is a pioneering contract, it was designed with the need to control as much as possible: as a result, there is too much focus on the intermediate variables, such as the type of bed sheet used or how many times it will be changed, rather than the final variables. Ratings are assigned and a monthly report with a critical analysis of the reviews is submitted to the Government and the GPA Group. The concessionaire, which also has its own verifications, discusses possible discrepancies between the two evaluations, since the final result may translate into possible discounts in payments from the public sector to the private sector. While there are initiatives to review performance indicators, it has not yet been possible to develop a new set of indicators that the State and the private partner consider ideal.

Although independent verification is already a widely used standard in public administration, in some cases it is only used for verification. In this case, analyzing the results in order to determine payment continues to be the contracting entity's responsibility. However, based on our

observations, the weaker the government's influence on payment flows, the more reliable they are. Preferably, it should be the verifier who issues the analysis report, which will be reviewed and will support the payment by the contracting entity. The parties can challenge the results within a specified period and, if there is disagreement, a technical committee can be set up to resolve any disagreement.

It is also worth mentioning that performance indicators are not the only way to promote contract efficiency. Supplemental income and profit-sharing percentages are some other mechanisms that can be added. In general, ancillary revenues are defined as a percentage of total revenues, according to national and international industry benchmarks, and weighted by local characteristics. If the additional revenue exceeds the percentage foreseen in the project's financial model, the additional portion is shared between the private partner and the grantor, or used for the discount on the tariffs. For the São Paulo Metro, for example, revenues from ancillary services tend to be predicted as 6% of total revenues. São Paulo Metropolitan Trains Company recently implemented an innovative way to optimize ancillary revenues from its transport system: it stopped selling its advertising space directly and transferred it to a qualified private partner. The concession, obtained by Eletromidia in February 2020, provides for a ten-year term, extendable for another ten years, for the modernization and operation of static and digital materials (such as locks, static panels, escalators, walkways, stickers inside and outside trains, monitors and digital panels) in stations on seven lines and trains (CPTM, 2020).

Finally, we leave this question: is there scope for consensual changes to the indicators over the life of the PPP after the contract is tested? The certainty that a perfect a priori measurement system cannot be created makes it essential to create regular review windows within long-term contracts, which will depend on the legal frameworks of each country. In these windows, the parties should review what is working and what is not.

Economic and financial rebalancing mechanisms

We have already mentioned the risk of non-payment or emotional responses to unpredictable events. Therefore, the project should contain a clear and optimized risk matrix, in which the actor with the greatest capacity to manage a given risk takes responsibility for said risk. The risk matrix must be in line with the payment flows described above and with the rebalancing mechanisms. In addition, mechanisms can be created to change the risk matrix for a given period in case of extraordinary events (e.g. COVID-19) and that are already incorporated into the contract text, without the need for major renegotiations.

More importantly, once the risk has materialized, it is important to be clear what the cost composition flow related to the risk is and how it will be rebalanced. Price setting will be necessary and risk sharing should favor a realistic division, with transparency as to who has greater capacity to take on a given risk. The most common method today is marginal cash flow, which highlights the event that happened and restores the value based on the values present at that time. Another creative solution may be to create an improvement reserve at the start of the contract, where the

private sector has an initial balance that can be "used up" as new investments are made, without having to resort to traditional rebalancing.

Under this scenario, the Government must observe the liquidity conditions of the concessionaire, which may or may not have the resilience to continue providing the service until the rebalancing takes effect. In some cases, there are unilateral rebalancing decisions taken by the public entity, which may result in lower costs for the entity, but reduces the reliability of State payments to the private investor. By seeking less financial exposure, the procuring entity may end up undermining the quality of service delivery or even leading to an unwanted termination of the contract. As we have emphasized throughout this Paper, contractual and commercial solutions, even if achieved through mediation or arbitration, are more desirable.

Early termination

Early terminations, while not the ideal form of termination, should be well planned and designed. The reliability of payments also crosses this possible point in the life of the contract. The investor will seek to identify honorable ways out proposed by the contracting entity or by the investor itself. In addition to seeking intermediate dispute resolution mechanisms before deciding to terminate the contract early, it is important that there are clauses that provide for the quantification of what is owed to the concessionaire.

In the event that the public entity requests the termination of the contract, it shall pay the concessionaire the value of the investment installments linked to the reversible assets not yet amortized or depreciated, which shall be determined based on the concessionaire' intangible and financial assets, and the established contract termination date. However, it is important to evaluate the inclusion of lost profits in this calculation, in order to avoid an opportunistic attitude on the part of the grantor due to a change of government or other political event. In addition to the appropriate treatment of unamortized reversible assets, provision should be made for compensation payment mechanisms and the procedure for contractual liquidation and termination should be stipulated.[26]

2.3. Regulator Behavior

Regulation is undoubtedly complemented by contract management. It establishes a further indicative and normative source to be observed, and can occur in both the contractual and non-contractual spheres. The objective should be that the contract regulates the relationship as much as possible, but technical, engineering, jurisprudential and other standards, designed outside the basic contractual environment, also bind the relationship between the parties. An example within the telecommunications sector is the technical standard that determines the distance and interchange between towers.[27] Therefore, the investor should be aware of issues outside the contract that may affect service levels, technical features or how technological developments will

[26] For more details, see the Discussion Paper - Theme 6 of the PPP Americas 2021.
[27] Federal Law No. 13.116 of April 20, 2015 (Brazil)

be addressed. That is to say regulations that have an impact on the mandatory matrices in the contracts and on the risk matrix.

In addition, contracts should provide the basis for contractual revisions (ordinary and economic readjustments). While contract formulas come from external sources, the regulator must establish parametric rules on which contracts are based. In other words, there must be some clarity in how the contract is to be understood.

It is also important to consider the regulatory framework as a typical activity of the State, assuming rigor, technical autonomy, and regulatory autonomy. This autonomy must come about through a solid legislative construction. Regulation should be established by entities that are not directly dependent on the relevant administration in order to reduce the risk of political influence, and that are not directly administering the contracts.

Regulatory schemes differ from country to country[28]. There are countries in Latin America where there are no "regulatory agencies" as such, but the same contracting entity supervises the contracts through a contracted third party. In Chile and Colombia, for example, there are inspectors but not institutions. In Brazil, although the existence of regulatory agencies is common, regulation is not always handled by a technical regulatory agent established by law. There are decisions of normative content that are still taken by agents who do not have a technical profile. At municipal level, this is more common, as regulation is mostly carried out at the level of government bodies and departments and not regulatory agencies. One example is the definition of the type of streetlight in recent municipal contracts. In other cases, the contractual inspection is carried out by the Granting Authority, while the regulatory inspection is carried out by the regulatory agency, creating a duplication of inspection activity and insecurity. However, we can say that the regulatory environment is moving forward and that there is relative maturity of several regulatory bodies at federal level (addressed in Law No. 13.848 of 2019) and even at State level.

In Peru, line 2 of the Lima and Callao metro provides some ideas on how the capacities of the regulatory bodies are key in the contractual execution stage. The PPP is under the responsibility of the Sociedad Concesionaria Metro de Lima Línea 2, whose term is 35 years, with almost 7 years having elapsed since the signing of the contract. Line 2 of the metro is part of the Basic Metro Network of Lima and Callao (consisting of 6 projected lines) and is one of the most ambitious gambles for connectivity and improvement of the urban mass transport system in the country (Delgado, 2014). As Line 2 is designed as a 100% underground metro, with GOA4 (driverless) technology, the Transport regulatory body had to hire international specialists who are now directly supervising the project, which has created coordination/governance challenges that have affected the project's execution schedule.

Although the Line 2 project continues to advance, despite some years of delay, the lesson that remains is that in order to supervise a sector in which a country has no previous experience, it is

[28] For more details, see section 3 of Discussion Paper No. 8 produced for PPP Americas 2021 (Theme 8: PPPs and oversight bodies in Latin America and the Caribbean: role and challenges).

necessary to have at least: the appropriate institutional framework to manage a highly complex project (which includes that the agents have clear competencies and responsibilities, and that there is a general coordinator or owner of the project who articulates and consolidates all strategic decisions) and political support at the highest level to permanently accompany the project in the implementation phase.

In addition, there is still confusion between the regulator and the grantor. In Brazil, for example, airport concessions are carried out by ANAC (National Civil Aviation Agency), which is a regulatory agency by nature. Thus, for example, in the case of a financial rebalancing of the contract, the best technical decision may have negative economic consequences for the contracting entity, thus demonstrating a conflict of interest between the regulator and the grantor. To compensate for the readjustment, the agency could decide to increase the inspection and impose more fines on the concessionaire, in order to have a "neutral" or lower financial result.

While the decision taken may not be the most technical one possible, from the point of view of the Judiciary, the assumption is that there is merit in the administrative acts of the regulatory agencies. It is good that the regulator is the one who sets the rules, supervises and sanctions. But it is important that the regulations seek to enforce the contract, both on the public and private side. Inspection can and should be more balanced and less focused on the private partner.

Another point of concern relates to the actual technical independence of regulators. Even when regulatory activity is separated from administration, some appointments to senior positions in regulatory agencies turn out to be political or ideological (Ribeiro and Jordão, 2017). Thus, sanctions may not be aimed at the best application of the law, but at the response that the political establishment wishes to give. In addition, there is no limit on liability for sanctions, making it difficult for the investor to reasonably measure regulatory obligations.

In addition to all this, there is the regulator's fear of making a technical decision that could be interpreted differently by the control bodies. This has economic and reputational consequences on a personal level for the public administrator, who will be more mindful of how the control bodies will interpret the decision rather than exercising full autonomy. This also has an impact on conflict resolution, which, as we have said, is unlikely to be consensual. The changes in the LINDB, in the Brazilian case, are important because they establish that the acts must be evaluated according to the interpretation at the time.[29]

We still see in Latin America an atmosphere of systemic distrust on the part of the control bodies. Bodies such as the Legislature, the Comptroller's Office, the Public Prosecutor's Office and the Court of Accounts try to be the faithful regulator of the acts of private persons in the Public Authority. Sometimes they question the actions of regulatory bodies, without having the appropriate technical expertise to do so. At other times, they may exercise ad hoc and ideological control. Capture Theory (technical or ideological) was constructed with the image of the private

[29] For more details, see section 5 of Discussion Paper No. 8 produced for PPP Americas 2021 (Theme 8: PPPs and oversight bodies in Latin America and the Caribbean: role and challenges).

individual who captures the contract,[30] but it is true that the capture can also come from the Public Authority or from the control entities.

Some solutions involve: i) the higher courts strengthening the role of the agencies and better defining the limits of the competencies of each control body; and ii) a cultural and institutional maturing, in which instead of assuming that the actors act in bad faith, an environment of greater trust begins to be fostered, with respect to the precedents of both the Judiciary and the administrative authorities. At the same time, protection instruments and legislation in general need to be further improved.

Agencies should seek to adopt proven international practices and rules. In Brazil, regulatory agencies are opening up to incorporate international best practices, depending on whether the agency is conducted in a more technical or political manner. The correct execution of regulatory impact studies, which are not always complied with, and international standards (such as those of the WTO) are also essential. Finally, the existence of instruments of democratic participation in regulation, such as consultations and public hearings, is positive provided that they are not carried out only on the basis of protocol or regulations.

[30] For more information, see Stigler, George (1971). "*The Theory of Economic Regulation*". The Bell Journal of Economics and Management Science, Vol. 2, No. 1, pp. 3-21.

3. Guarantees

Despite the provisions of the contract, the State payment may fail. Unlike PPPs contracted in developed countries, based solely on the trustworthiness and credit of the government (such as the British crown), many PPPs in Latin America would not be conceivable without formal guarantees to compensate for the lack of credibility of governments and their subnational entities. (Enei, 2018).

The guarantees can be understood as the mechanism that indicates to the private partner that during the term of the contract there will be no interruption of income, even in the case of any arbitrariness of the Public Authority that culminates in the non-fulfillment of its payment commitments (Cohen, IC; Marcato, FS, 2020). Consequently, it also indicates to the project financer that there are secure receivables during the period in which the debt is being repaid.

3.1. Classification of Guarantees

Guarantees can be classified as: (i) project-based guarantees and (ii) policy-based guarantees.

Project-based guarantees

The main project-based guarantees are credit or loan guarantees and payment guarantees. Credit guarantees refer to guarantees that provide credit risk mitigation to trade creditors, covering debt service defaults, regardless of the cause. They can cover a variety of instruments, such as loans, leases, bills of exchange, corporate bonds and promissory notes. Credit guarantees may not fully satisfy the creditor's requirements, but they do facilitate access to finance.

On the other hand, payment guarantees provide risk mitigation with respect to non-payment obligations (not related to government loans). This may include payment obligations arising from contracts, laws or regulations, such as payments under an Offtake Agreement.[31]

In the context of payment guarantees (i), which are the main subject of this Discussion Paper, they can also be classified according to Princhak (2020) as:

- **Intrinsic Guarantees:** those whose sector of activity allows the structuring of guarantees based on the accounts receivable generated by the business, such as public lighting, sanitation and solid waste projects.

- **Extrinsic Guarantees:** those in which, due to the sector of activity, it is not possible to create a guarantee structure with credits from the business itself, thus requiring the establishment of a specific guarantee with resources of a different nature to the

[31] An Offtake Agreement is an agreement between a seller and a buyer to buy or sell, in whole or in part, items that are still to be produced. An Offtake Agreement is normally negotiated prior to construction or installation of production; it serves to guarantee a future market that will contribute to the recovery of the investments made by the seller (for more information, see link http://www.undp.org/content/dam/sdfinance/doc/Public%20Guarantees%20_%20UNDP_sdfinance.pdf).

concession activity, such as projects in the health and education sectors, the penitentiary system, among others.

Policy-based guarantees

Policy-based guarantees guarantee a portion of government debt service against all risks, for a specific commercial debt instrument, thereby improving the government's access to capital markets. They can be used for any commercial debt instrument offered by any private institution to the eligible government, including foreign currency debt. The borrowing government may use the proceeds of the guaranteed debt for any budgetary purpose. They can be self-standing or part of a larger financial support package, often including development policy loans in support of a set of agreed reforms.

Eligible countries have a strong performance record with a satisfactory social, structural and macroeconomic policy framework and a coherent strategy for gaining (or regaining) access to international financial markets. For example, Colombia issued $1 billion in ten-year bonds in May 2001, backed by a $159 million World Bank policy-based guarantee. The WB provided a rolling guarantee for the first two semi-annual scheduled payments (principal and interest), so that after each debt service payment, the guarantee is transferred to the next scheduled payment (for more information see UNDP).

3.2. Main types of guarantee

In Latin American countries, various contractual guarantee mechanisms are used to facilitate long-term financing of PPP projects. The most effective and widely used guarantee is the Guaranteed Minimum Income (GMI). Guaranteed minimum revenue is a non-financial guarantee provided in infrastructure contracts, in which the government guarantees a minimum amount of revenue in the event that demand (and thus revenue) for the infrastructure is not sufficient to cover the private partner's debt service. This guarantee has been used in Chile, Colombia and Peru, mainly in the transport sector. Below, we discuss the main types of contractual guarantees to cover possible financial imbalances in PPP contracts.

In Brazil, the PPP Law establishes the following mechanisms that the government can use to guarantee its pecuniary obligations:

> *"Article 8: The pecuniary obligations contracted by the Public Administration in a public-private partnership contract may be guaranteed by:*
> *I) revenue bonding, subject to the provisions of Article 167(IV) of the Federal Constitution;*
> *II) establishment or use of special funds provided by law;*
> *III) contracting surety bonds with insurance companies that are not controlled by the government;*
> *IV) guarantee granted by international bodies or financial institutions not controlled by public authorities;*

(V) guarantees granted by a guarantee fund or a State-owned company set up for that purpose;
VI) other mechanisms permitted by law."

Revenue bonding

Revenue bonding is nothing more than the a priori allocation of a public asset (public resources arising from the realization of the bonded public revenues) for the specific purpose of guaranteeing the obligations of the Public Administration in PPP contracts. Schirato (2011) argues that public revenues are credit rights constituted by law or another legally equivalent mechanism, i.e., they are not considered public assets until they are received. Therefore, the bonding would not prejudice the inalienability of public assets, it would only establish the allocation of a given public asset to a public purpose established by law. In Brazil, the Constitution determines which tax revenues can be bonded or not.

According to the interpretation of some legal experts, the surety bond or surety is not a form of guarantee, according to the meaning commonly associated with this term and with PPP operations. Therefore, mere budget bonding would offer little protection to the concessionaire (Enei, 2018). There would be an obligation (legal or contractual, depending on the agreement) of the procuring entity to use the bonded resources to pay the amounts due. However, the individual is not guaranteed the right to take the resources for itself, which is guaranteed to the creditor in the case of a real guarantee. In either case, the bond increases the reliability of payments insofar as it indicates a specific source of revenue that should be directed towards payment of the project.

Revenue bonding is also subject to political risk and the risk of realizing such revenues. In the first case, the public partner can extinguish the existing bond in the public budget. In the second, because government revenue is not a public asset before it is realized, but a receivable, it is a future and uncertain event. One way to mitigate the above risks would be the legal provision of the payment system for PPP contracts, which makes it difficult to revoke the allocation of resources (Schirato, 2011).

Use of special funds

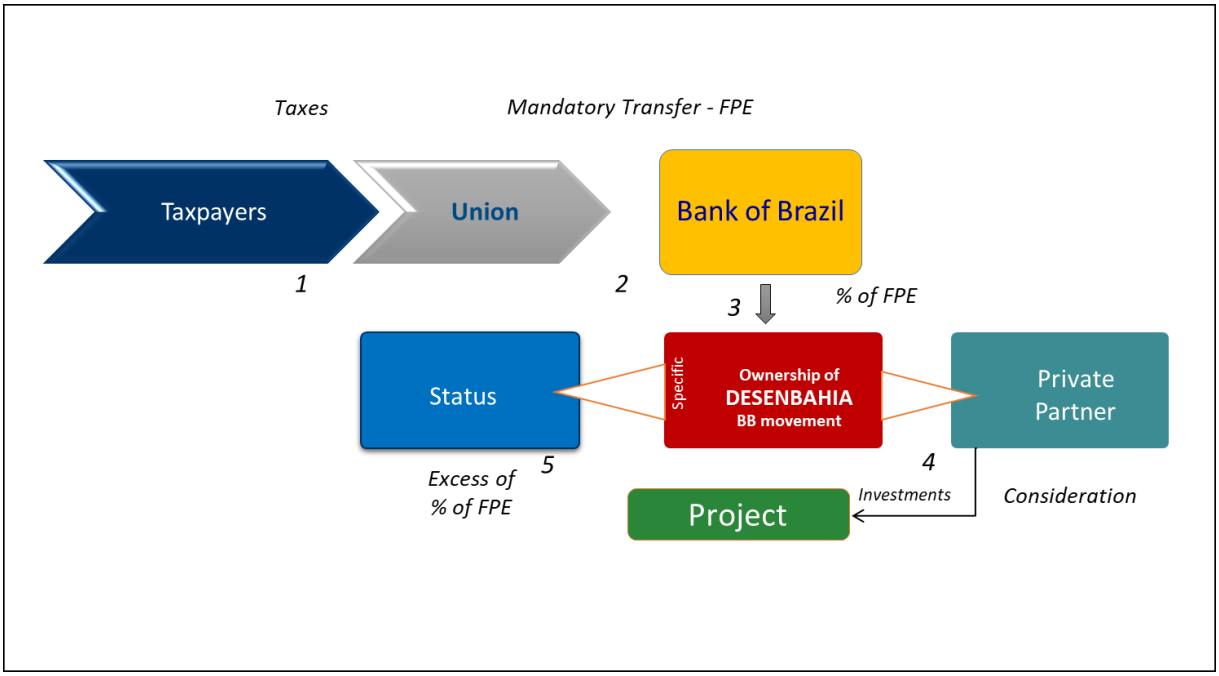
The establishment or use of special funds basically refers to the creation of accounting funds to introduce resource guarantee mechanisms for the payment of PPP obligations. The accounting funds constitute a form of segregation of budgetary resources, operated within the public budget itself. Thus, PPP guarantee funds have legal personality, private character, and their own assets are separate from the net worth. Dieterich (2017) also suggests that liquidity is an important benefit of using PPP guarantee funds. However, at least in Brazil, a specific legislative authorization is necessary for the Public Administration to establish budgetary reserves with specific public revenues. The application of the designated revenue is made by means of an appropriation set out in the budget law.

The PPP Law in Brazil allows both the establishment of new accounting funds and the use of existing funds. In the case of existing funds, however, Schirato (2011) notes the concern that a legislative authorization may be needed to ensure that the purpose of the fund is related to the PPP guarantee. Unlike surety bonds, accounting funds function as collateral in their own right. The resources to be used for the current payment of the government's financial obligations in the PPP contracts do not come primarily from the resources allocated to the accounting fund. The amounts segregated in the accounting fund will serve to provide the private partner with a guarantee that the resources needed to make payments exist, in the event that the original State payment fails.

In this respect, Schirato (2011) suggests that the bonding of revenues and the existence of accounting funds are compatible mechanisms within the same PPP contract. While one allows sufficient cash flows to pay the amounts due, the other provides a reserve of resources, in case there is a problem with the bonded flow. However, there is also the concern that the public authority may not maintain the fund for the entire term of the PPP contract, affecting the capacity to use the existing resources in the fund for the payment of the balance of its obligations. In this case, the private partner must sue the procuring entity, applying the precautionary approach. The historical instability in the payment of court orders (which must be paid in chronological order) creates trust issues, as previously mentioned.

In Brazil, some states and municipalities have created special funds for the purpose of securing PPP contracts, through the appointment of a fund manager and the establishment of linked accounts. In Bahía, a trust was formed and managed by the State financing agency, Desenbahia, in conjunction with Banco do Brasil, whose payment scheme can be seen in Figure 1. The trustee is mandated to allocate the resources available in these accounts to the payment of the obligations of the secured contracts. Indeed, establishing linked accounts and an independent agent increases the perceived liquidity of this guarantee. The concessionaire is unlikely to obtain a court order, after exhausting the administrative procedures, compelling the public entity or fund manager to make a payment, in view of the principle of non-enforceability. Therefore, the concessionaire has the payment subject to the precautionary system. So what is the solution? Make the guarantee fund private, with public quotas managed by independent directors? Or establish non-dependent companies with legal personality under private law?

- ***Figure 1 -*** *Financial Flow of the Bahia State Trust*



Source: Bahía State Government (2019)

The use of trusts in Peru

One element that is often used successfully to insure PPP risks is the trust fund, through which an autonomous estate is designated, with specific and non-revocable instructions, to support the obligations linked to a PPP. In the case of PPPs, the trust can serve as a mechanism to channel existing payment streams into projects that generate their own resources, or to obtain, at a higher level, resources from grantor entities that are solvent public or subnational entities. It also serves as an important element in reducing the perception of administrative risk (the possibility of allocating resources to other priorities as a result of political changes) when it comes to projects that require central government input.

In the case of Peru, the trust has served to facilitate the budget forecasting of public agencies since, by allocating a percentage of the revenues to an autonomous estate, the perception of administrative risk for the concessionaire is reduced. For the government, the trust fund also helps to effectively reduce the temptation to use these resources on other priorities. From the perspective of central governments, the trust serves more to organize the sequence of

payments ("*cash waterfall*") to the Concessionaire and does not in itself represent a credit enhancement. For the concessionaires, the trust guarantee ends up being an important credit enhancement by establishing greater reliability in state payments, especially in the case of PPPs that partially or fully collect enough revenue to meet their payment commitments. In the latter case, examples include the urban road projects in the city of Lima (solvent because they have a long track record of traffic) and the four water and sanitation PPP projects linked to the city of Lima's water and sanitation trust fund (Sedapal).[32]

Performance bond

Performance bonds are a type of insurance in which the insured item is not a tangible asset, but the performance of contractual obligations. In the case of PPPs, the performance bond guarantees the solvency of the public partner with respect to its obligations under the respective contract. In the event of default, the insurer shall pay the insured amount, i.e. the obligations taken on by the Public Administration in the PPP contract.

In Brazil, under the PPP Law, it is prohibited to contract guarantee insurance with a government-controlled insurance institution. For Schirato (2011), this prohibition applies to insurance institutions controlled by the contracting entity. There would be no problem, therefore, if the insurer is controlled by a subnational entity other than the granting authority, since the same understanding applies to credit transactions. The important thing is to ensure that contracting is carried out on the basis of market conditions, providing the necessary security to the private partner.

In the case of the international performance bond, the issuer of the policy would be a multilateral agency, which could reimburse the national government if the guarantee is called, and then the national government could reimburse the subnational entity responsible for the defaulting grantor. This concerns the national government's reluctance to increase its risks of fiscal irresponsibility if it becomes a guarantor of other federal entities, especially considering the limitations on borrowing and granting guarantees imposed by the Fiscal Responsibility Law (although there is room for use of the limits on guaranteeing).

Multilateral Organizations

Multilateral development bank (MDB) guarantees are effective instruments for attracting private finance to unlock infrastructure investments. The coverage provided by these international organizations is in the form of a guarantee, whereby the multilateral organization agrees to honor the commitments of the partner in the event of default. If the payment is made by the multilateral guarantor, the latter becomes a creditor of the public partner for the exact amount disbursed under

[32] The projects are: the wastewater treatment plants PTAR Taboada, PTAR La Chira, Provisur, and Trasvase Huascacocha under the Sedapal trust; and Línea Amarilla (Lima, Peru) and Vías Nuevas de Lima (Rutas de Lima) in the case of PPPs with trusts composed of pre-existing urban tolls.

the terms of the guarantee and according to the same terms and conditions provided in the PPP contract (Schirato, 2011).

MDBs essentially offer two guarantee products: (i) partial risk guarantee, also called political risk guarantee, and (ii) partial credit guarantee. The main difference between them is that, while the risk guarantee covers an obligation triggered by a specific event, usually a governmental act (political risk), the credit guarantee can be called as soon as payment obligations cease to be honored, regardless of the underlying event that caused the default.

MDBs work mainly with partial guarantee structures due to moral hazard and information asymmetry issues. Total default is also unlikely to occur, and partial coverage may be sufficient for debt service while another remediation mechanism is triggered. Most MDBs offer comfort to investors with their AAA risk rating. It is worth mentioning that the guarantee mechanism granted by international organizations is an extremely solid form of guarantee, since they have a solvency risk equivalent to the sovereign risk of all the signatory countries.

Incentives are also more aligned when the counterparty assumes part of the risk, i.e., the beneficiary will have incentives to manage events that may affect its interests, rather than trying to transfer all the risks to the insurer, which has less information about the project under guarantee. For this reason, it is not surprising that some multilateral development bank policies prohibit full coverage.

Among the benefits offered, MDB guarantees provide lower borrowing costs and longer loan terms for borrowers, while minimizing the use of capital-backed resources from multilateral banks. Even so, such guarantees represent only 5% of MDB operations, although they account for 45% of the total mobilization of private resources (Betru, 2017 *apud* Pereira dos Santos, 2018).

Looking at guarantees still in place and provided by selected multilateral banks in 2016, Pereira dos Santos (2018) notes that MIGA is the most common guarantee provider, responsible for about half of all guarantees in place on that date. This is not surprising, as MIGA is the only MDB specializing in risk mitigation products. For other institutions, except the IFC (International Finance Corporation), guarantees do not represent a significant portion of their operations compared to the loans they offer.

In some cases, guarantees from multilateral agencies can serve as a credit enhancer, even if there is a government guarantee for the project. This is because the sovereign debt rating of the guarantor government affects the ability of its guarantees to be accepted by project investors and financial markets (Lu, Chao and Sheppard, 2019). Guarantees issued by governments with relatively low sovereign ratings (B1/B+ or lower), or no ratings, are unlikely to have a positive impact on project finance unless they are backed by multilateral development banks or similar institutions. Even governments with BB- ratings and above, but below investment grade, can get better terms and conditions with the help of such credit enhancers. In the following table, Pereira dos Santos (2018) presents the main mechanisms for credit enhancement.

- ***Table 2:*** *Credit enhancement mechanisms*

Type	Definition	Impact on the rating
Cash flow stabilization	Instruments that prevent or delay a possible difficulty or non-compliance.	May result in a higher project rating.
Improvement of recovered values	Instruments that increase the prospects of recovery and reduce losses in the event of default.	S&P and Fitch: does not affect ratings directly. Moody's: considers the best prospects for recovery.
Combined instruments	Structures that combine instruments that delay a potential default with instruments that enhance recovery to address specific risks.	May result in a higher project rating.
Credit replacement	Guarantees designed to transfer the entire debt repayment risk from the project finance to the guarantee provider.	As a result, the project's rating may match that of the guarantor.

Source: Pereira dos Santos (2018); our translation.

The role of public banks

In Brazil, since its creation, the Brazilian Development Bank (BNDES) has sought to play a central role in long-term financing in the country. The BNDES was the main instrument for investment in key sectors such as electricity, transport, telecommunications and public services. Most of the PPP and concession projects that prospered in Brazil almost always relied on financing from public banks, with subsidized tariffs, mitigating the risks involved and reducing the cost to the private sector (Yokota and Vilela, 2017).

However, based on the current fiscal policy, there is an unmistakable reduction in the BNDES' participation as the main financier of large projects in the country. The BNDES is beginning to take on the role of project structuring, as it understands that a well-structured project will attract more competition. Thus, it begins to reduce its percentage of participation in the financing of each project and seeks to attract other sources of financing for projects, such as infrastructure bonds.

Another form of action sought by the bank is to start operating with insurance and bonds in the financing of infrastructure projects, through the expansion of resources in the Investment Guarantee Fund (IGF) that manages and is currently aimed at small and medium enterprises. However, for this measure to materialize, the IGF must be capitalized by the National Treasury.

In Colombia, the financial products offered by the Financiera de Desarrollo Nacional (FDN) have made it possible to reduce the barriers to project financing. By the end of 2020, FDN was the largest financier of fourth-generation (4G) road concessions with about 5.9 trillion Colombian pesos (approximately US$1.6 billion) committed to more than 10 projects through senior debt, bank guarantees, funding lines, and liquidity facilities (FDN, 2019). Recently, they have expanded their products to securitization and structuring of debt issues in the capital markets. This is the case of the securitization carried out for a value of 131.35 billion Colombian pesos (approximately US$37 million) for the renovation of the Transmilenio bus fleet of the Calle 80 bus yard in Bogotá (FDN, 2019). Through these mechanisms, the FDN's participation in the financing of infrastructure in the country has increased the projects' liquidity, attracting and increasing the participation of other national and international actors.

In Peru, public banks (COFIDE) have played an important role as a complement to banks and the private market in general, although in several cases they have also played a role in promoting investments in sectors where the supply of credit was not sufficient to carry out projects of direct public need (transport and public transport infrastructure). While it is true that COFIDE does not have or provide access to a more competitive cost of financing than that available in the market, its participation serves to catalyze the interest of private participants and also plays a promotional role by providing open financing conditions (available to bidders in general) prior to project bidding (preliminary stage) that serve as a basis to assess the financial feasibility of bidders. COFIDE does not grant credit coverage beyond that which corresponds to its approved participation (normally no more than 50% of the amount of the investment), nor does it support the credit quality of the grantors (typically considered sufficiently solid in Peru).

3.3. Important characteristics of increased funding capacity

When assessing the credit quality of a transaction, rating agencies and lenders will first investigate the overall financial strength of the infrastructure project, including its business profile, risk exposure, legal and financial structure, the quality of its operators and developers, among other factors. They will then assess the potential benefits of a guarantee structure to increase the project's ability to meet its debt obligations. The improvement in the perception of the credit granted by guarantees is intrinsically related to their capacity to increase the stability and predictability of cash flows, in addition to the prospects of recovering losses in the event of default.

The ideal guarantee provides confidence to the project financer that during the period in which the debt is being repaid by the private partner there will be no interruption in the projection of revenues, even in the case of any arbitrariness by the public authority that may lead to the disregard of its financial commitments (Cohen and Marcato, 2020). To this end, it is necessary to guarantee the payment obligations of the contributions and offsets, but also to ensure that the guarantee itself is enforceable through an appropriate mechanism.

To ensure the smooth running of the project, the guarantees must be recognized for their good quality. For Dieterich (2017), this means that guarantee mechanisms depend fundamentally on the quality of the assets or the backing linked to them: basically, the "claims of volume, liquidity, solidity, enforceability and legal certainty" (Dieterich, 2017). Finally, guarantees cannot be prejudicially modified by any question about the availability of the backing offered.

Guarantees should be easy for beneficiaries to activate. Preferably, the concessionaire will prefer automatic or *"on first demand"* guarantees, that is to say guarantees that are paid on first notice, without the need for the concessionaire to prove the facts constituting entitlement.[33] However, guarantees in which the beneficiary has to prove the facts that justify the activation of the guarantee (for example, default by the granting authority) become less attractive because they provide less certainty as to when the amount owed will be received.

Still, according to Standard & Poor's (Staudohar, 2013), some essential characteristics for good assessment of guarantees by this agency include:

- The guarantee is one of payment and not of collection: that is to say the guarantee must be a guarantee by the guarantor to pay the guaranteed obligation, rather than merely a promise to pay any deficiency remaining after the beneficiary has exhausted all its remedies against the collateral and the principal debtors.
- The guarantor agrees to pay the guaranteed obligations on the due date, and waives demand, legal notices or marshaling of assets.
- The guarantor's obligations under the guarantee are *pari passu* with its unsecured senior debt obligations.
- The guarantor's right to terminate or amend the guarantee is appropriately restricted.
- The guarantee is unconditional, irrespective of value, validity or enforceability of the guaranteed obligations.
- The guarantor waives all other circumstances or conditions that would normally release a guarantor from its obligations.
- The guarantee will be reinstated if the primary debtor recovers any secured obligation payments made, in the context of a bankruptcy or insolvency proceeding.

[33] Here, of course, it is considered that the obligation to pay has materialized, i.e. the concessionaire has provided the service and that the service is duly measured and recognized.

Assessing the value of guarantees

Guarantees can be regarded as "credit enhancement" products, especially when concessionaires issue debt for infrastructure financing. By increasing the credit rating of an offer, the cost of financing can be reduced. If the issuer attempts to issue debt in the market without a financial guarantee and therefore with a lower risk rating, lenders will require a higher interest rate. In many markets, the assessment of a guarantee is determined by the savings, in terms of interest rates, that will be generated with the guarantee compared to the rate that would be paid in the absence of a guarantee (Hinojosa, 2015).

In developing countries, the reason for using financial collateral goes beyond the potential for interest rate savings. The value of the guarantee may even be significantly higher than the financial value: it is the viability of the project itself. The financial guarantee is a particularly important product to serve the long-term institutional investor market. The market for the placement of unsecured debt securities for infrastructure projects is very limited in Latin America, due to the amounts and long terms required for the project, the construction risks, as well as other project risks with which institutional investors are unfamiliar and therefore unwilling to assume.

When a multilateral organization is involved, rating agencies consider an additional factor: the positive intangible effect of having a multilateral institution involved in the transaction. This effect was called the "halo effect" by Standard & Poor's (Pereira dos Santos, 2018). As mentioned above, multilateral development banks become involved as independent and trusted third parties that provide a "seal of quality" to projects. They can mediate the relationship between relevant stakeholders and local authorities, especially when projects run into problems.

4. Innovative Guarantee Structuring in Response to Fiscal Constraints of Governments

The benefits that the adoption of sponsored concessions and public-private partnerships bring to infrastructure development are undeniable, especially in emerging countries. In addition to allowing the experience of private partners to translate into efficiency for the project, both during the construction phase and during the operation period, these institutes are an important alternative for governments, since they can have access to the capital available in the private market for the execution of investments that would be very difficult to deem viable with public funds alone.

However, the use of the resources available in the capital market brings with it the need for contractual instruments that provide guarantees to the private partner on the fulfillment of the financial obligations assumed by the Government. Guarantees are important to structure solid operations that result in a greater attractiveness of the project, better risk perception and, consequently, lower financing costs.

Such guarantees, mostly required in emerging countries, given the scarcity of resources and, in many cases, unfavorable payment reliability records, almost always result in additional costs for governments to provide mechanisms for this purpose. The demand for infrastructure development in these countries is greater than the amount of resources available to meet the payment of public contractual obligations, which creates competition among priority projects. The scenario becomes even more complicated when, in order to make the project attractive, it is necessary for these entities to assume additional costs to structure the guarantee mechanisms.

Nations that have already reached a certain level of maturity in PPP projects, but whose reliance on the provision of guarantees remains a necessary condition for attracting private investment, such as Brazil, Chile, Colombia and other Latin American countries, face difficulties in using traditional tools to provide guarantees. It is in this context that the search for innovative solutions that do not add extra costs to projects has gained attention in the modern structuring of *Project Finance*.

In addition to financial complications, the existence of legal devices and limitations, most of which are aimed at protecting the public budget, are additional obstacles to the design of alternative guarantee models. This is the case with the use of tax revenues, prohibited by the Brazilian Federal Constitution, and the disposition of public property, the use of which is limited by the Civil Code.

Current needs of the countries in the region

Currently, the use of various guarantees is based on strengthening infrastructure projects at subnational or institutional level. However, sovereign governments are the main underlying risks in the vast majority of projects in the region, such as in Mexico, Colombia, Peru or Chile. In the case of Mexico, only the few states with strong creditworthiness have been able to support PPPs without sovereign guarantees. The vast majority of concessions must still seek a guarantee from the central government, making use of trust guarantees on federal shares or resorting to partial guarantee products that are developed by State entities (Banobras, Bancomext, and others).

Similar structures are being sought in Colombia, where there is strong interest from subnational governments (mainly municipalities) in developing and supporting their infrastructure. However, the total investment requirements mean that some of these projects, although self-sustainable,[34], require sovereign support. In the cases of Peru and Chile, concessions related to social or subsidized infrastructure are mostly supported by the State, even in cases where the granting authority can be considered strong enough to support the concession independently (in the case of water and sanitation works in Lima, Peru). In these countries, the level of sovereign government support has not yet reached levels that create constraints for new projects. The bottleneck still seems to be the management capacity to bring new PPPs to market.

In Brazil, although management deficiencies still exist, the biggest bottleneck is the fiscal limit of the contracting entities. In 2020, for the first time, public debt will reach more than 100 % of GDP (IMF, 2020). Public accounts have been in the red since 2014 and the fiscal crisis has deepened with the COVID-19 pandemic. Brazil invests less than 2% of its GDP in infrastructure (ABDIB, 2020), but there is very little room to leverage private investments without the corresponding guarantee structure.

Some innovative cases of guarantees that can be used to respond to the fiscal or other restrictions that the contracting entities may have are discussed below.

Bonding of guarantee income

The bonding of revenues for the constitution of guarantees does not depend exclusively on resources of tax origin; therefore, there is room for creative solutions. It is possible to use, for example, revenues from the active debt (tax debt in which the State is a creditor) of federal entities, which, despite the legal and constitutional impediments to their direct allocation, can be added to the project through mechanisms that allow them to be obtained outside the transfer of credits framework. In these specific cases, asset-backed securitization can be used, where the

[34] In this case, we refer to the term self-sustainable in its standard use, i.e. self-sustainable projects are those with their own income-generating capacity, which do not require co-financing from the public sector. In Peru, prior to Legislative Decree No. 1224 of 2015, a self-sustainable project did not mean an economically viable project in this more traditional sense. It meant that the grantor had sufficient resources to meet its contractual obligations and did not require central government support in terms of additional contributions to pay for the concession. Legislative Decree No. 1224 changed the definition of self-sustainable and changed the classification of PPPs from self-sustainable to self-financed (IDB, 2016).

proceeds from the repayment of loans are converted into financial assets with a market value, subject to negotiation.

This process depends on the existence or creation of a specific purpose company or fund to which the rights to receive the receivables and the issuance of quotas or debentures backed by such receivables will be transferred. These assets can then be offered to the market, thus capitalizing the issuing fund. Thus, with the net resources in the account, the federal entity may choose to allocate them to a consolidated project guarantee structure, such as guarantee funds or guarantor companies, providing greater financial solidity to support new projects without directly assuming new costs to the public budget.

However, one consideration is that there is still distrust in the capital market with respect to these securities, due to the political risk involved. In addition, the funds available are small compared to the size of the guarantees required in PPP contracts. Finally, it is worth mentioning that this mechanism completely avoids the allocation of the tax credit, since the credit granted as a guarantee comes from resources negotiated in the market and not from the tax itself.

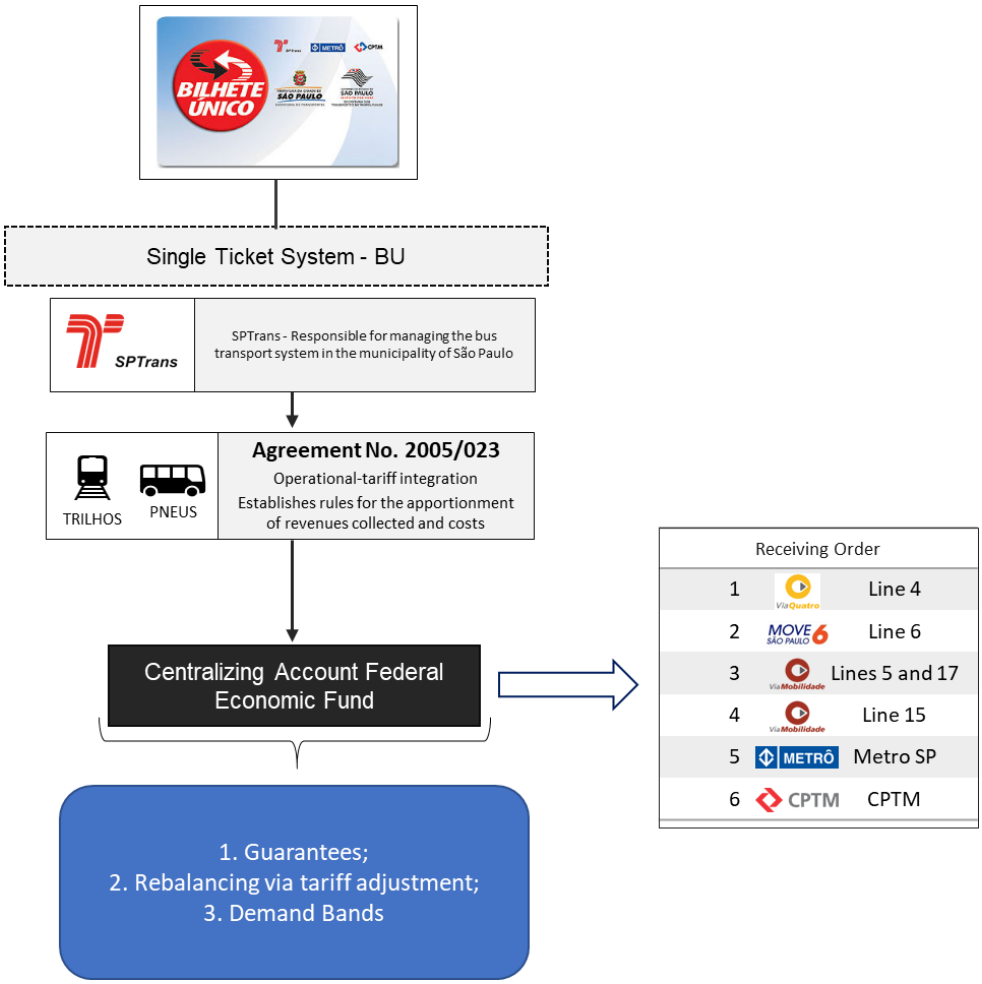
Another alternative within the field of revenue bonding is the assignment of receivables, which can be applied in different forms such as: centralized accounts, fees receivable from donations, fees and contributions for public services and even participation funds.

In public transport systems in large cities, there is an opportunity if the system is composed of different modes and operators. The integration of the entire system provides passengers with travel options according to their needs. The fee paid for its use, in these cases, is concentrated in a centralized account, administered by an independent financial body, responsible for distribution, according to pre-established rules, among its members. Hence the possibility of linking this flow of receivables to guarantee structures foreseen in transport projects.

One example is the “Bilhete Único” (Single Ticket), in São Paulo (Figure 2). The Bilhete Único is a smart card used in the transportation system of the metropolitan region of São Paulo. By integrating several systems operated by different entities (buses, trains and subways), all fare collection is centralized in a separate account and distributed on a daily basis according to predefined rules, which is called the Bilhete Único Clearing House. The first layer consists of splitting the revenue between the “tire” mode and the “rail” mode. Once this is done, in railway mode, the operating concessionaires receive their share (contractual tariff multiplied by the number of passengers), following the order of priority according to the beginning of the term of each concession, from the oldest to the most recent. All fare revenue payments to São Paulo State railway concessionaires are made through this system, currently administered by Caixa Económica Federal (Brazilian state bank) and with the participation and supervision of all operators. Given the historical collection flow, the Bilhete Único Clearing House also serves as a guarantee of public payments in some of the contracts, in addition to supporting automatic fare

compensation rules in case of activation of "demand bands" and possible contractual rebalancing.[35]

- ***Figure 2** - Payment flows in São Paulo's transport system*



Source: Produced by the authors, based on the experience of the group's contributors

It should be noted that this option requires the centralized account to have a positive balance, so that the activation of the guarantee does not compromise the payment of the other members and, consequently, the stability of the entire transport system. Therefore, it is necessary to carry out detailed studies and projections of demand and revenues, considering stress scenarios and using stochastic models for greater security.

[35] The information on the Bilhete Único was gathered through an interview with a professional from Companhia Paulista de Trens Metropolitanos (CPTM).

A similar mechanism can be designed through a regulatory agency or a public company designed to manage the leased assets. One example is highways, whose payment in installments of other concessions can be given as a guarantee for new projects that require investment and are classified as PPPs. This option, however, is only valid for entities that have a large number of assets under a concession and that generate long-term receivables in their favor.

Other examples can be found in basic sanitation projects, whose guarantees may be linked to accounts receivable related to water consumption and sewerage. These present a low risk of revenue issues given the nature of the business. As tariffs are usually earmarked for a specific use, in several countries they would only support projects directly linked to the nature of each of these tariffs.

Finally, in terms of revenue bonding specifically, there is also the use of future resources from participation funds. These funds are fed with resources collected by the Union through taxes or contributions, and then distributed to subnational entities. Thus, payments to the concessionaire are “held” at the point of origin of the resources, serving as a net payment mechanism or payment guarantee instrument (Dieterich, 2017). In the case of the states of Bahia and Piauí, FPE funds are used as a payment stream and are treated as “constitutional receivables”. These accounts receivable are pledged as collateral. In this way, FPE resources are not allocated to a guarantee fund, but pass through an escrow account managed by a financial agent (“trust”). The latter makes the payment and then transfers the surplus to the account of the respective State treasuries.

These guarantees, in addition to not representing an additional cost for the contracting entity, do not encounter any legal obstacles. It turns out that converting taxes into financial resources in the public coffers means that these credits are no longer restrictive in terms of their linkage. They become ordinary public revenues when the federal entity receives them. In Brazil, there are judicial precedents that support the use of constitutional transfers as public guarantees, even though it is understood that, since they are taxes, they cannot constitute public guarantees. A point of focus is that the use of transfers, especially when they come from the Union, must be preceded by the settlement of debts with the transferring entity.

- ***Table 3:*** *Condition of government revenue bonding or assignment according to the nature of revenue*

	Definitive assignment			Financing guarantee / surety-guarantee / advance payment of revenues		
	Future income within the mandate	**Future revenues go beyond the mandate**	**Credit transaction (co-obligation of the assignor, etc.)**	**Future income within the mandate**	**Future revenues go beyond the mandate**	**ARO (Anticipation within the year)**
Royalties **(LRF; art. 5, VI, Resolution SF n. 43/2001)**	Permitted, for any purpose	Allowed, but only for Pension Funds and payment of debts owed to the Federal Government	Permitted, subject to the indebtedness limits of the federal entity	Allowed, but only for Pension Funds and repayment of debt owed to the Federal Government and subject to debt limits	Allowed, but only to fund the loss of royalties collected in 2014 and 2015, subject to a limit of 10% of annual revenue	Allowed, subject to its own limit of 7% of the projected RCL for the year
Asset debt (LRF; art. 5o, VII, SF Resolution n. 43/2001 and SF Resolution n. 33/2006)	Final assignment of receivables is permitted without co-obligation of the assignor or revocation clause		Not allowed	Permitted under the terms of SF Resolution n. 33/2006, via irrevocable endorsement for prepayment redemption by financial institution		Not applicable
Transfers / FPE and FPM (art. 167 CF; LRF)	Not allowed			Yes, to guarantee debts with the Federal Government, with the right of retention, according to art. 167 of the Constitution (or of municipalities with states, under the terms of the LFR). Defensible, but subject to challenge, such as guaranteeing PPPs, as long as it qualifies as financial revenue and not taxes.		Allowed, subject to its own limit of 7% of the projected RCL for the year
Taxes (art. 167 CF, LRF)	Not allowed			Yes, to guarantee debts with the Federal Government, with the right of retention, according to art. 167 of the Constitution (or of municipalities with states, under the terms of the LFR). Sealed for APPs.		Allowed, subject to its own limit of 7% of the projected RCL for the year

Source: Enei (2018); our translation

The use of public assets as a guarantee

Developing countries, especially those with a monarchical or imperialist history, have a large number of properties linked to their heritage, accumulated during the centralizing phases of the State. However, real estate, by its nature, is not considered to be a highly liquid asset, as these assets cannot be immediately converted into cash, which makes it difficult to use them directly in guarantee structures. In addition, the vast majority of public property has legal and constitutional restrictions on its alienation.

However, it is not prohibited to establish a Real Estate Investment Fund that centralizes the volume of income generated by these properties, whether or not they are linked to the object of the concession, in an amount sufficient to be used as a guarantee for the PPPs. One example is the establishment of the FII-VLT, a Real Estate Investment Fund owned by CDURP, which is part of the public guarantees of the PPPs for light rail vehicles in the port and central region of Rio de Janeiro. As the simple allocation of FII-VLT quotas did not constitute a net guarantee for the private party, the guarantee scheme structured for this project establishes that, as the FII-VLT

generates results, the resources are kept in a specific account until they reach an amount of BRL 40 million, the amount provided for as a guarantee (Dieterich, 2017).

This becomes an interesting option as the shares of this fund can be traded on a secondary market, providing significantly more liquidity than the properties themselves . Not to mention the centralization of resources in accounts managed by independent financial institutions, which facilitates the concessionaire's access to resources in the event of triggering the guarantee mechanism.

It is true that creating a Real Estate Investment Fund (FII) depends on a detailed mapping and evaluation of the properties that could compose it, market studies on the attractiveness and capacity to generate income and a plan for its exploitation. Another point to highlight is the duration of the FIIs, which must be in line with the projects to be guaranteed, at least during the payment phase of the debt contracted by the concessionaire for the execution of the investments.

Payment bonds and guarantees

In Brazil, according to the Federal PPP Law, surety bonds are allowed to be contracted with financial institutions or insurance companies not controlled by the Government, including multilateral organizations. These instruments are used as a way of "meeting" public payments or other pecuniary obligations assumed by the Granting Authority.

However, any granting of guarantees of any kind is considered a credit transaction in Brazil. For this reason, the use of this tool must comply with specific tax regulations, especially those contained in the Fiscal Responsibility Law. The Law establishes i) that financial institutions may not grant credits to the public sector in excess of 45% of their assets, and ii) that all new credit transactions contracted by the public entity must respect an overall annual limit.

While its objective is to protect the public budget, when applied to the structuring of guarantees for PPPs, such determinations impose two important barriers to the application of this instrument. The first of these is the fiscal constraint that affects most public entities in Brazil, which have no budgetary leeway to carry out lending operations. The second limitation relates to the very framework of the insurance-guarantee as credit operations. Even when there is available space within the fiscal limit, the adoption of bonds must compete for budgetary space with the other intentions of the Public Administration in the contracting of direct financing that will bring resources for the execution of priority projects of that entity.

In addition, it is natural for insurers and private financial institutions to demand the provision of counter-guarantees from the Granting Authority, which does not completely solve the inability of the public entity to structure guarantees for the project. Thus, in order to encourage the use of this option, it is essential to develop products that do not require a counter-guarantee from the public entity proportional to the guarantee received, showing an explicit advantage through less expensive options than those directly demanded by the concessionaire.

It is important to note that multilateral agencies, such as the Inter-American Development Bank (IDB) and the World Bank, have similar products in their portfolios and are not subject to the aforementioned frameworks, such as the fiscal limits determined by the Fiscal Responsibility Law. Even so, as institutions dedicated to the support of public entities and the development of infrastructure in emerging countries, it is reasonable to imagine that multilateral organizations have the conditions to absorb a greater share of risk and thus be able to offer insurance with less onerous requirements for the country's contracting public entity than those demanded by the financial market in general.

5. Conclusions

Public-private partnerships represented a new way for the Public Administration to provide quality public services and infrastructure to users. However, the notion of a State being a bad payer means that there is considerable risk in any company whose financial viability depends solely or partly on payments from that State. In this article, we attempt to discuss mechanisms and procedures that can be implemented throughout the life of the project, from its design phase and that increase the reliability of government payments to the private investor. This mitigation of credit risk contributes to the economic viability of the project to be carried out through the PPP, as it gives it financial credibility and reduces the rate of return required by private partners.

We believe that there is room and demand to generate a much higher number of PPPs in Latin America, at all levels; yet most of the PPPs studied and proposed never make it to bidding or contracting. Enei (2018) cites as reasons the inertia of the State machinery, the shortage of qualified officials to review and approve the studies and proposals received, the unavailability of budgetary resources in the short or long term, the exhaustion of legal limits and even the difficulty of providing public guarantees, which is of particular relevance to this Discussion Paper. Therefore, we have also tried to provide some alternatives of differentiated guarantee structures, mainly in view of the fiscal restrictions of the different governments and the deepening of the crisis with COVID-19.

We recognize, however, that there are not yet a significant number of PPP projects in Latin American countries that are comparable and have come to market with differentiated guarantee structures. We know that guarantees reduce the perception of risk and, most probably, the cost of financing the project. But, more than that, we strongly believe in its qualitative contribution: the vast majority of PPP contracts in Latin America today, structured with guarantees, might not have been able to attract investors or financers if the schemes had not been guaranteed. According to Schirato (2011), we are overcoming the unilateral and authoritarian vision in which the public sector assumed all the risks, or transferred them in their entirety to the private partner. Guarantees allow us to arrive at a full-fledged partnership system, where risks are shared and mitigated to the greatest extent possible, in order to get the best possible deal for all parties.

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