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Questions: Mr. Monteiro, FAD (ext. 38923)
Ms. Rial, FAD (ext. 38010)



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DRAFT G20 REFERENCE NOTE ON FISCAL RISKS AND PUBLIC-PRIVATE PARTNERSHIPS

EXECUTIVE SUMMARY

Public-private partnerships (PPPs) bring a promise of efficiency which required careful fiscal risk management. When applied to the right projects, well-designed and properly implemented, PPPs can benefit governments in many ways. They can mobilize additional sources of funds, bring private-sector management capacity, and create incentives to deliver and maintain better-quality infrastructure. They may also allow governments to identify project costs more transparently and focus on outputs and performance levels. PPPs usually bring higher financing costs, they require more complex tendering and careful contract management, and they expose governments to significant fiscal risks. These risks—i.e. the chance of negative impacts on the fiscal position of government—are linked to contractually accepted risks, but also to potential change during the long contractual term. Enjoying PPP benefits requires governments to manage carefully the PPP processes, including fiscal risk management, considering their long-term nature and the complexity of risk-allocation agreements.

Fiscal illusion prevents governments from understanding the sources of fiscal risks. The long-term nature of PPPs and the changed time-profile of government cashflows (eliminating short-term budget outflows, in exchange for future payments or foregone income from user fees) generate an illusion of additional fiscal space. The illusion is magnified when off-budget and off-balance accounting practices prevent governments from perceiving the extent of liabilities incurred with PPPs. And compounded when governments adopt non-integrated, parallel project-assessment and development processes that prevent a level playing-field for project approval. Fully understanding the sources of PPP fiscal risks is crucial to ensure that PPPs are only implemented when they are efficient and affordable, and that fiscal stability is not jeopardized by excessive liabilities.

Fiscal risks arise in all infrastructure projects, but PPPs present different risks that need to be addressed. PPPs bring new risks, accruing from long-term contracts and the need to manage the relationship over a long period. Even when well designed, PPP contracts create fiscal risks, as government is the ultimate responsible for the provision of infrastructure services—and those fiscal risks exist in every PPP, even in projects expected to be paid for by users.

PPP contracts can also create implicit fiscal risks when they are poorly designed, particularly when a government signs a PPP contract for a project with no financial sustainability. Optimism bias and political interference in the estimation of project costs and revenues, repeated renegotiations of PPP contracts, and the acceptance of unsolicited proposals create additional fiscal risks and challenges for governments. Poor infrastructure governance is also a major source of fiscal risks, particularly weaknesses in project selection and in assessing the adequacy of PPP procurement for each project.

Governments should build the institutions and capacities required to manage the fiscal implications of PPPs. Experience shows that in the absence of effective fiscal management, PPPs can lead to waste, inefficiencies, and unsustainable fiscal costs. A strong infrastructure governance framework calls for establishing a gateway process governing the preparation and procurement of PPP projects, in which the Ministry of Finance has the power to stop or suspend a project at any stage of the project cycle if it is deemed fiscally unaffordable or carrying excessive fiscal risk. A proactive fiscal risk management function for PPPs should be set up in the Ministry of Finance to identify, estimate, and manage fiscal costs and risks from PPPs. Governments should also improve their budgeting, accounting, and reporting standards and practices to ensure fiscal transparency regarding PPPs. A clear, consistent, and enabling legal framework for PPPs is a prerequisite for effective fiscal risk management. Last, but not least, skills and capabilities need to be developed in the Ministry of Finance and in the ministries and agencies implementing and managing PPPs.

Approved by
Juan Toro (FAD)

Prepared by a staff team from the IMF's Fiscal Affairs Department led by Manal Fouad and Chishiro Matsumoto and comprising Rui Monteiro, Isabel Rial, and Ozlem Aydin Sakrak.

CONTENTS

INTRODUCTION	5
THE CASE FOR PUBLIC-PRIVATE PARTNERSHIPS	6
CHALLENGES OF PPP PROCUREMENT	10
FISCAL ILLUSION AND FISCAL RISKS	12
A. Fiscal Illusion Caused by PPPs	12
B. Fiscal Risks Originating in PPP Contracts	15
C. Fiscal Risks Originating in Poor PPP Governance	21
MANAGING PPP FISCAL RISKS	24
A. A Gateway Process for PPP Preparation and Procurement	24
B. A PPP Fiscal Risk Management Function in the Ministry of Finance	26
C. PPP Fiscal Transparency	30
D. A Clear and Consistent Legal PPP Framework	34
REFERENCES	37
 BOXES	
1. Main Characteristics of PPPs	5
2. PPP Asset Recognition Criteria: Control vs Risks & Rewards Approaches	14
3. Occurrence of Explicit Fiscal Risks	15
4. Contractual Risk Allocation	16
5. The Fiscal Cost of Implicit Contingent Liabilities	17
6. Optimism Bias in Infrastructure: Optimistic Cost Expectations	18
7. Renegotiation in Practice	19
8. Examples of Risks of Unsolicited Proposals	20
9. Fiscal Illusion and Fiscal Sustainability	22
10. Fiscal Risks Originating in Subnational Governments and Public Corporations	23
11. Examples of Gateway Processes for Controlling PPPs Liabilities and Risks	25
12. PPP Fiscal Risk Assessment Model (PFRAM 2.0)	28
13. Limits to Government Exposure to PPPs	29
14. IMF's Fiscal Transparency Evaluation: Good Practice in Reporting on PPPs	31
15. Reporting PPPs by the Public Sector	32
16. Examples of Standardization of PPP Contractual Provisions	35

FIGURE

1. A Generic Gateway Process for Managing PPPs	25
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TABLE

1. From Project Risk to Fiscal Risks	8
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INTRODUCTION

1. As an option for governments to procure infrastructure assets and services, public-private partnerships (PPPs) present both opportunities and challenges. They can create incentives to mobilize private capital, bring in private sector management capacity, and achieve higher quality of service. Due to their long-term nature and complex risk allocation, PPPs require governments to have strong infrastructure governance institutions in place. Inappropriately managed, they can pose significant fiscal risks which if materialized would impact public finances, jeopardizing medium-term fiscal sustainability. In this note, PPPs encompass all the projects presenting the characteristics described in Box 1, regardless of the legal definition of “PPP” in each country.

Box 1. Main Characteristics of PPPs

A PPP can be characterized as a project governed by a long-term contract between a government and a company, in which the company makes an investment in an asset and uses it to provide services to the government or the public, while usually being required to satisfy a set of performance criteria. The services and infrastructures are usually those traditionally provided by the government, such as roads, railways, schools, hospitals, prisons, ports, or airports. The PPP contract is always a single contract for the design, construction/rehabilitation, and maintenance of the asset, sometimes including also its operation.

The company signing the PPP contract with authorities (alternatively called the PPP company, the private partner, the PPP operator, the PPP concessionaire, or simply the concessionaire) is typically established specifically for the purpose of the PPP. It is usually a private company, in order to bring the private capital that adds credibility to the commitment to performance. The private party usually bears significant risk and management responsibility throughout the life of the contract, while the government continues to be the ultimate responsible for the quality of the services and bears some of the risks of providing them. At the end of the contract, full usufruct of the asset typically reverts to the government.

Infrastructure PPPs are always long-term (often 25 years or more), in order to encompass infrastructure maintenance (and sometimes its operation) and keep the PPP company responsible for the contractually-agreed service performance.

PPPs can be broadly grouped into two types: (1) government-funded—where the government pays for the services by way of predetermined payments over the term of the contract for making the asset available (availability payments) or payments per volume of services provided; and (2) user-funded—where users pay fees for the services. Under the user-funded model, the government may still subsidize the investment or guarantee the company’s debt or revenue. Various combinations of these two funding arrangements are possible. Some countries make a legal distinction between “PPP” as government-funded project and “concession” as user-funded project (while other name some PPPs as “privatized projects”)—all of them are classified here as PPPs as long as they share the characteristics above.

2. PPPs can improve the management of some types of infrastructure projects and reduce their cost for government. Being long-term contracts, they are a mechanism for trading direct liabilities for future risks, and vice-versa. They can reduce overall costs, containing fiscal risks and helping medium-term budgetary management. They can be an effective tool for the timely completion of infrastructure projects. And they provide for continued maintenance of infrastructure assets.

- 3. But infrastructure projects are risky by nature, and PPPs are not an exception.** Project selection and project development are more critical in infrastructure than in other public projects, as most infrastructure costs are sunk costs once they are realized—meaning that, if the project is canceled after some assets are built most of them cannot be reused in another project. Infrastructure costs and revenues are typically location-specific and difficult to assess in advance—for instance, construction depends on the geology, orography, and other characteristics of the site—and service delivery depends on specific demand, its distribution along the day, and its seasonality. Complex infrastructure projects tend to face cost overruns and delays which also result in additional cost for government. Moreover, given that infrastructure usually implies a local monopoly, governments accept responsibility for its provision. While some infrastructure assets, such as telecommunications, can be fully provided by the private sector with government keeping simply the regulator function; others, such as roads and water, require governments to provide the services or to procure contracts for private sector provision under public control (e.g. for assets which otherwise would be provided by a monopoly).
- 4. This note discusses the fiscal risks associated with PPPs and how governments can manage and make the most out of them.** After presenting pros and cons of PPPs, it outlines the “fiscal illusion” typically created by PPPs; the main sources of fiscal risks they present; and how governments can manage them.
- 5. In the wake of the COVID-19 pandemic and the large increase in government spending that has ensued, interest in PPP-based public procurement is likely to increase.** First, following the global recession, countries will want to increase public investment as part of the economic recovery. Second, countries will emerge from the pandemic with scarce fiscal space, elevated debt levels, and large financing needs, and therefore may be tempted to use PPPs as a means to avoid using public resources, instead of using PPPs to ensure more efficient use of scarce public resources. It is therefore key to have a sound management of PPPs in place, including good management of the fiscal risks they entail, to maintain fiscal responsibility, debt sustainability, and to achieve an efficient use of public resources.

THE CASE FOR PUBLIC-PRIVATE PARTNERSHIPS

- 6. PPP procurement, when applied to the right projects, can bring a range of benefits.** PPPs typically present a credible guarantee of implementation according to schedule; they help relieve the pressure on overstretched public finances, while contributing to overcome borrowing constraints; they help deliver better quality infrastructure with a whole-life-costing approach; and they help preserve the value and quality of infrastructure through adequate asset maintenance.
- 7. Using PPPs to reduce the financing gap is conditional on measures to reduce the funding gap.** Although private finance can alleviate public investment needs (see Gaspar et al 2019), it cannot in itself reduce the funding gap—meaning that the private partner brings in the financing of the project, but under the expectation that the project will be funded, over time, by

users and/or taxpayers. Therefore, PPP success requires a credible funding plan for each project, and a consistent infrastructure funding policy, without which private investment will not be attracted, or fiscal risks will accumulate. This Note presents several cases where unrealistic expectations that resorting to PPPs would solve funding issues, led to fiscal risks that actually converted into significant fiscal burdens—see, for instance, the cases of Vasco da Gama bridge (toll reductions), Johannesburg-Pretoria highway and Skye bridge (in both, toll abolition), and South Korea highways (user-funded projects that later had to be funded by taxpayers).

8. PPPs can reduce some major project risks, while introducing some new risks to public finances. PPPs do not eliminate project risks, but they bring a business-oriented implementation partner, able to make swifter managerial decisions and to implement them with recourse to the financial markets. They also foster in government a more comprehensive and holistic approach to project risks, prior to drafting a contract. With a long-term contract transferring to a private entity the immediate responsibility for project development and implementation, PPPs allow to bestow on the private partner the responsibility for major project risks, such as design, construction, maintenance, and operational risk. Therefore, they alleviate public finances from significant risks they would usually bear. A well-structured PPP allocates to the private partner the risks that such partner can manage better than the public partner (such as the ones that it can directly influence through business-minded project management). Transferring some risks to the private partner reduces project risks that affect the fiscal position of government—those that are here designated as “fiscal risks”. Table 1 presents the most common occurrences of project risks in PPPs, and their typical risk allocation between the public and private partners. At the same time, PPPs create new risks. PPPs lock the public partner into a long-term relationship with a private entity to commit the private partner to project performance, and to avoid corner-cutting and poor infrastructure design. But long-term contracts create new fiscal risks linked to the vagaries of change, be it economic, technological, demographic, or preference change. These changes may affect government directly, or affect the financial sustainability for the private partner, and consequently government.

Table 1. From Project Risks to Fiscal Risks

Project phase	Type of project risk	Explicit fiscal risk, through contractual allocation?	Can implicit fiscal risks arise?
Risks during construction	Land issues and resettlement	Risk typically shared or fully allocated to public partner	Yes, when private partner cannot cope with risk
	Urban and other local licensing	Risk typically allocated to private partner	Yes, when private partner cannot cope with risk
	Environmental risks	Risk typically shared or fully allocated to one or the other partner	Yes, when private partner cannot cope with risk
	Geology and other construction risks	Risks typically allocated to private partner	Yes, when private partner cannot cope with risk
	Project design errors	Allocated to private partner	Yes, when private partner cannot cope with risk
	Cost of inputs	Risks typically allocated to private partner	Yes, when private partner cannot cope with risk
	Force majeure	Risk typically shared or fully allocated to public partner	Yes, when private partner cannot cope with risk
Risks during operation	Demand issues	Varies widely: allocated to one party or the other, or shared	Yes, when private partner cannot cope with risk
	Regulation of user fees	Allocated to public partner	Yes, when public partner is under pressure
	Maintenance and operational costs	Allocated to private partner	Yes, when private partner cannot cope with risk
	Policy change	Allocated to public partner	(not applicable)
	Changes in law	Allocated to one or the other partner, depending on change type	Yes, when private partner cannot cope with risk
	Force majeure	Risk typically shared or fully allocated to public partner	Yes, when private partner cannot cope with risk
Renegotiation		—	Yes, public partner tends to accept higher costs and risks

9. Good practices in public procurement usually call for separate contracts to regulate different aspects of infrastructure and service provision. Efficient governments carefully develop the project to ensure that it serves the identified needs with adequate quality and at lowest cost. Then, they contract separately the detailed design of the infrastructure, the construction of different infrastructure assets, the provision of equipment, the maintenance of facilities and equipment, and the operation of services.

10. In traditional procurement, there are good reasons for having separate contracts but managing them can be challenging. One of them is the convenience in getting the best contractor for each part of the project. Another reason is avoiding perverse incentives. For instance, if the construction company is simultaneously responsible for the technical design, bidders will be able to optimize their bids by planning to “cut corners” in the design, thus reducing construction cost but

also service quality. Implementing the project through a plurality of contracts requires good project management by the authorities. Managing large projects, from the initial concept to construction and then operation, is a challenge for many governments. Poor management often results in change orders, costly renegotiation of contracts, and the need for signing additional contracts; in turn leading to cost overruns, implementation delays, and sometimes poor quality of service.

11. By bundling all infrastructure project activities into a single contract, PPPs reduce the management burden for government, but require long-term contracts and private finance to be efficient. In complex infrastructure projects, it may be more efficient for government to hire a single partner to assume responsibility for the whole project, instead of managing specialized contractors implementing the various project activities (e.g., design, construction, operation). Yet, when bundling the project activities under a single contract, efficiency requires a long-term contract and private finance. As the private partner will command project design and implementation of the infrastructure, it has strong incentive for “cutting corners”, reducing the quality of the service to end-users; in complex projects, the solution for neutralizing this perverse incentive requires a long-term contract where the private partner commits to the future performance of the project. In a long-term contract, the credibility of the private partner commitment is established by the existence of “money at stake” through private finance: the opportunity to make a profit through good delivery, but also the risk of facing losses when penalties for under-performance are applied.

12. A single PPP contract allows government to identify project costs in a more transparent manner, providing a better link between fiscal costs and public service delivery. This helps in the identification of cost overruns, usually more visible under PPP procurement than under traditional procurement. It also helps for public investment planning purposes, creating better incentives for the costing of investment plans and for the definition of output-based indicators.

13. A major benefit accruing from PPPs is the effective implementation of complex infrastructure projects. When an infrastructure project is highly complex, traditional procurement presents challenges to government, and often they translate into delayed implementation (besides cost overruns). In general, well-structured and competitively procured PPPs have demonstrated their ability to deliver timely and effective infrastructure. There are several well-known reasons for that: (a) the financing of the whole project is agreed in advance; (b) the private partner needs to complete construction in order to start recovering its costs; and (c) bidding for the whole project induces complete and careful costing. So, PPP procurement allows for both the resources and the incentives to be in place.

14. A well-structured PPP allows for the private partner to implement the project using business rationality (and not public-sector more rigid rules), as long as the project is serving the intended goals and satisfying the output and performance requirements. The private partner can benefit from the efficiency savings it can devise, while protecting the public purse if additional expenditure needs arise. So, a PPP acts as a mechanism for efficient project implementation, reducing waste. Of course, such mechanism requires (a) competitive tendering of the PPP contract, allowing for expected savings from private management to reduce the cost for government (or increase its revenue); and (b) adequate management of the contract by the

authorities, assuring that output and performance requirements are assessed, and application of contractual penalties is enforced.

15. PPPs shift the focus of infrastructure procurement from bricks and mortar to service delivery. For the incentive reasons described above, a PPP project is defined according to outputs and performance levels. Instead of detailing the design, the type and volumes of construction materials, and the human resources needed for a project, a well-structured PPP contract typically defines what type of assets should be built and what services are to be provided using those assets, and commits the private partner to effective service delivery according to a set of key performance indicators. This allows for the contracting authority to aim directly at service delivery, and not simply at asset construction. By linking project cost directly to performance levels, PPPs specifically address efficiency in public investment.

16. PPPs help protect the value of public assets by requiring adequate maintenance of the assets during the term of the contract. Poor maintenance is chronic in many countries, due to a mix of poor funding and poor management. While brand-new construction has political visibility, the continued maintenance of existing assets lacks allure and is not always protected by public investment management systems. PPPs create both the incentive for adequate maintenance, and financial plans that reserve funds for that purpose.

17. Last, but not least, governments facing constraints on their access to credit can use PPPs to mobilize additional sources of funds. The quality of a project, and often its ability to generate revenue, may attract investors and private finance, increasing the government's fiscal space in the short-term, as no upfront capital outlay is required. But governments face a long-term financial commitment given that any additional investment will need to be paid back.

CHALLENGES OF PPP PROCUREMENT

18. Even good PPP projects present some challenges that governments cannot eliminate but only mitigate.

- **PPPs financing costs are usually higher than those for financing public traditional investment.** PPP financing costs are higher because private firms usually do not have access to sources of low-cost financing as government has. Also, they are higher because financial risk depends on the specific risk of a project and a firm, while government can pool risks from many projects and support from all its taxpayers. Paying higher financing costs is not an issue in itself, if those costs are more than compensated by the ability of the private partner to manage the project and its risks, and to deliver high-quality service to end-users. Financing costs may also be unnecessarily high if the contract allocates to the private partner risks it cannot manage, or if the tender for the contract does not include satisfying requirements regarding the financial qualification of bidders.
- **PPPs require more complex and costly administration, both in tendering and contract management.** Screening PPP projects, adopting the right PPP structure, and designing the draft

contract, are all complex tasks, requiring specialized knowledge and presenting significant costs. For this reason, some countries put a lower bound on the size of projects to procure as PPPs. Managing the tender is also complex and sensitive, as potential bidders face high bidding costs. And then the adequate contract management, over the full life of the contract, is also complex and costly. These inconveniences can be mitigated, by contract standardization and central provision of PPP expertise. Several governments already include the line ministry's contract-management capacity in the assessment of their ability to procure PPP efficiently.

- **PPPs create significant fiscal risks linked to potential change during the long contractual term.** Change may be alien to the parties, taking the form of natural disasters or war, technological change (e.g. alternative services, or new ways of delivering the service, possibly with higher benefits for users and much higher, or much lower, costs for the service provider), demographic change (in terms of volume, age structure, and geographical distribution), or user preferences. But change can also originate in government entities, like in the executive, legislative, or judicial branches of government. It may result from a change in policy or legislation, or simply from a project-specific decision (or lack of needed action) by the public authority managing the contract. These potential changes create fiscal risks that may suddenly convert into effective financial liabilities under the terms of the contract or by pressure of users or influence groups. In addition, government faces the risks that the private partner, at some future point, is unable to face the risks it accepted at the inception, and so cannot keep delivering the agreed performance. The referred potential changes also affect traditionally procured projects, but in PPPs their impact is much broader—for instance, the fiscal impact of a natural disaster may be more than simply the cost of damage, but also the need to buy back infrastructure assets and terminate the PPP contract.

19. The main issue with fiscal risks is not their existence, but instead the fact that too often they are disregarded in project selection and project implementation, due to fiscal illusions. The recourse to PPP procurement comes surrounded by a cloud of fiscal illusions that prevents careful fiscal risk management and allows for too costly or poorly structured projects to be approved and procured. The coming section discusses those fiscal illusions arising from PPPs.

FISCAL ILLUSION AND FISCAL RISKS

A. Fiscal Illusion Caused by PPPs

20. PPPs have special characteristics that make them prone to “fiscal illusion”. The impact of PPPs on government cash balances differs substantially from that of traditional public procurement. In traditional public procurement, the government finances, builds, and operates infrastructure assets, with the corresponding cash flows affecting government budgets (i.e., expenditures, revenues), public debt, and public-sector balance sheets. In PPPs, the private partner is responsible for financing and building the asset. Compensation to the private partner by the public sector usually takes place later during the operation of the asset, either directly through public sector payments or indirectly through the public sector allowing the private partner to charge user fees (and so forgoing revenue it might otherwise receive). Therefore, in PPPs governments do not need to issue debt or use existing public resources to provide new infrastructure assets, at least not at the beginning of the contract. In PPPs that require public sector payments, the “fiscal illusion” is diluted after the construction phase, once regular payments reduce public sector cash balances over the duration of the contract. However, in PPPs with user fees, the fiscal illusion may be permanent, given that cash flows from the public sector and the loss of future revenue are not foreseen for the whole duration of the contract, generating in government the idea of “infrastructure for free”.

21. While PPP create incentive mechanisms that could reduce total project risk, additional risks from long-term contracting and from fiscal illusion may increase total fiscal risks in PPPs when compared to traditional procurement. Public contracting entities can use PPPs to transfer to the private operator the risks it can manage better than the public sector—but government is not immune to risks when a private partner cannot cope with them, whatever is written in the contract. And maintaining value in a long-term contractual relationship may be difficult in projects or sectors where change is pervasive. Public investment management systems should be able to ponder the pros and cons in deciding on the procurement mode to use—but fiscal illusion (as presented below) often distorts decision making and leads to adopting PPP procurement for the wrong reasons, and not for efficiency reasons.

22. There are three main sources of fiscal illusion in PPPs: budgeting and accounting practices, asset recognition criteria, and fiscal risks assessment by public sector contracting agencies. Countries are exposed to these sources of fiscal illusion in varying degrees depending on their national practices and capacities. Failure to tackle all the sources of fiscal illusion comprehensively, would leave the public sector exposed to fiscal illusion in PPPs.

23. Budgeting and accounting practices that allow governments to increase infrastructure without an immediate impact on public-sector deficits or debt are a large source of fiscal illusion. This is typically the case in countries that rely on cash accounting but can also arise under accrual accounting. For example, under cash accounting, the fiscal impact of PPPs is based on the government cash balances only during the operational phase of a PPP, ignoring significant liabilities that are accrued during construction and along the way (as prescribed by IPSAS 32 standards). Good

practice for assessing the fiscal impact of infrastructure projects is to consider the whole project cycle, not only the construction phase. Moreover, the assessment should go beyond cash balance implications and look at both the assets and the public liabilities (explicit and implicit) created. When looking at the whole project cycle (i.e., asset construction, operation, and transfer back to government or full decommission) in the absence of efficiency gains in using PPPs, the fiscal impact is basically the same, in net present value terms, regardless of the procurement method used (i.e., traditional or PPP). For PPPs that require public sector payments, while the public sector avoids the large upfront investment required under traditional procurement in the short-term, subsequent payments to the private partner over the long-term should be large enough to compensate for the costs of construction and operation of the asset, as well as its profit margin. Hence, governments may only “gain time” during construction but need to pay during operation. Similarly, for PPPs that are based on user fees, short-term budget savings during construction are equal, in net present value terms, to the user fees foregone by the public sector during operation. Yet, introducing accrual accounting and looking at the whole project cycle would not eliminate fiscal illusion if ultimately PPPs are regarded as private assets.

24. Fiscal illusion in PPPs can also arise from failing to recognize PPP assets as public infrastructure. Governments may classify PPP infrastructure as “private” assets instead of “public” assets. However, private financing of public infrastructure should not be confused with private ownership. PPPs require complex legal arrangements to facilitate private financing, which typically result in private-sector legal right to use the infrastructure assets (with legal ownership or usufruct rights) during the term of the PPP contract. Based on these legal rights over the infrastructure asset, and disregarding the fact that the public sector is in fact controlling the assets and/or is the economic owner of the asset,¹ governments may be tempted to exclude PPPs from their fiscal accounts, even if they have modern fiscal accounting systems, leading to fiscal illusion. A first step in addressing fiscal illusion would be to classify PPPs as public assets regardless of the legal structures supporting them. If the public sector retains some degree of control over the PPPs it would be difficult to argue that PPPs are private assets from an economic perspective. If this is the case, the infrastructure assets should be included in public balance sheets, as defined in the IPSAS-32 accounting standard.

¹ See Box 2 for a detailed analysis of control and economic ownership of a PPP infrastructure asset.

Box 2. PPP Asset Recognition Criteria: Control vs Risks & Rewards Approaches

These two approaches set the asset recognition criteria for PPPs infrastructure assets in public sector accounting and statistics, respectively.

The *International Public Sector Accounting Standards (IPSAS)* set the criteria for recognizing PPPs infrastructure assets into the government accounts (IPSAS 32, Service Concession Agreements: Grantor, 2011). PPP assets are considered public assets, therefore included in the government's accounts, if the public partner controls them, which is known as the “control approach”. The public partner is regarded as controlling the PPP assets when it has the ability to define the utilization of the assets, can define who can use them, and how much should be paid for their use or availability. If the public partner controls the assets, the latter are deemed as public infrastructure, regardless of who legally owns them.

The *Government Finance Statistics Manual (GFSM 2014)*, in line with the *System of National Accounts (SNA 2008)*, classifies PPP infrastructure assets in the government's accounts if the public partner bears the majority of the risks and reaps the majority of the rewards arising from them, which is known as the “risks & rewards approach”. When the majority of the risks and rewards from the assets are born by the public partner, the latter is deemed to be the “economic owner” of these assets. Legal ownership of an asset is different from “economic ownership”, the latter being only a statistical concept.

In theory, the control and risks & rewards approaches are not widely different, despite longstanding discussions among the accounting and statistical community. Historically, the risks & rewards approach originated as a way to ascertain control by the public partner over the assets, but along the way these approaches end up being regarded as two completely different concepts, when in substance they are not. When the public sector has the ability to define the utilization of the assets, who can use them, and how much should be paid for their use or availability, it is quite likely that in practice it bears significant fiscal risks, both explicit and implicit. This is particularly that case for large and strategic assets (e.g., roads, airports, dams, railways) where the government is the ultimately responsible for the delivery of the infrastructure services to the population. However, while similar in substance, these two approaches can lead to quite different results in practice, depending on how they are implemented.

While the control approach is easy to implement and normally results in most PPP assets being classified as public infrastructure, the risks & rewards approach is much more prone to manipulation. When PPP risks assessment is done in a narrow or rather simplistic way, statistics might end up excluding most PPPs from the government's accounts. Assessing whether the “majority” of the risks have been transferred to the private partner is not straightforward in practice. The SNA 2008 just sets the principles, but it does not provide enough guidance on how to implement the risks & rewards approach in practice, leaving it to countries to define what is the “majority” of risks in PPPs. In Europe, the Eurostat *Manual on Government Deficit and Debt* and the *Guide for the Statistical Treatment of PPPs* provide practical rules to decide whether PPP assets should be included in the government's accounts, thus impacting fiscal deficit and debt. However, Eurostat's rule-based implementation of the risks & rewards approach has led countries to exclude most their PPPs from the government's accounts, by focusing on a limited number of risks and preconditions. While limiting the assessment of risks facilitates the implementation of the risks & rewards approach, it also introduces a bias to exclude PPPs from statistics, and more importantly, it generates the incentive to structure PPP contracts to circumvent Eurostat rules.

Sources: IPSAS 32 https://www.ifac.org/system/files/publications/files/B8%20IPSAS_32.pdf; SNA 2008 <https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf>; GFSM 2014 <https://www.imf.org/external/Pubs/FT/GFS/Manual/2014/gfsfinal.pdf>; Eurostat Manual on Government Deficit and Debt <https://ec.europa.eu/eurostat/documents/3859598/7203647/KS-GQ-16-001-EN-N.pdf/5cfae6dd-29d8-4487-80ac-37f76cd1f012>; Eurostat and EIB Guide for the Statistical Treatment of PPPs https://www.eib.org/attachments/thematic/epec_eurostat_statistical_guide_en.pdf

25. Fiscal illusion can also stem from limited assessment of fiscal risks in PPP contracts.

Even PPPs that carry less fiscal risk in terms of their contractual risk allocation can present significant overall fiscal risks. For example, user-funded PPPs with no expected cash flows for government budgets and no public guarantees can still create fiscal risks. These can arise from a low demand for services, resulting in bankruptcy of the private partner. If these risks materialize, governments usually cannot abandon the asset, and often are legally bound to buy the asset back and absorb the fiscal costs.

Box 3. Occurrence of Explicit Fiscal Risks

Government contingent liabilities are sometimes the optimal way to structure an efficient PPP contract. They should refer to risks that government—and not the private partner—can better manage. And they should be carefully assessed in the context of fiscal risk management, with the identification of the probability of occurrence and fiscal impact of each contingency. Some contingent liabilities come from minimum revenue guarantees. Others originate in events that force an early termination, such as concessionaire bankruptcy, concessionaire underperformance, nationalization, or extreme force majeure case.

Early termination is rare, but it happens. Several highway PPPs went bankrupt in Spain in the 2010s, forcing government to buy their assets. The Marão Tunnel concession in Portugal, was terminated for prolonged interruption of construction, in 2013. Belize decided to renationalize the water and electricity concessions in the early 2010s. Termination during construction is the most complex, as it involves assessing the value of works completed and plans for the completion of construction. For this reason, some countries monitor closely the construction phase, as done by PIMMAC in South Korea. Termination during the operational phase involves the careful prevention of service disruption—often involving the availability of a management team, at least until a new concession is tendered.

Contingent liabilities come also from events exogenous to the project (such as a significant variation in the exchange rate), or from project-related events. In the United Kingdom the single largest component of the London Olympics, its Olympic Village housing 24,000 athletes, required government financial support when the public-private venture building it could not raise enough funds. In New Delhi, India, the PPP concessionaire installing the metro line to the airport claimed defective construction of the elevated platform that government had transferred to the PPP and used a contract clause to force early termination. In Portugal, after several decisions from the environmental authority implied significant fiscal costs from project changes in PPP highways, the legal framework was changed, requiring environmental approval prior to the call for tender for PPPs. Significant PPP fiscal risks have induced governments with large PPP portfolios to create PPP fiscal risks management teams in the Ministry of Finance, working with line ministries and their contract managers in preparing for possible occurrences, and even in implementing active measures that may reduce the probability of occurrence of fiscal risks.

Source: Authors.

B. Fiscal Risks Originating in PPP Contracts

26. PPP contracts create firm and contingent public-sector liabilities. Besides firm liabilities (in the form of availability payments, acquisition of services, subsidies, etc.), PPP contracts create a range of contingent liabilities, i.e., liabilities triggered by some future event. Most contingent liabilities are not formal guarantees approved by the treasury in a specific document, but rather simple clauses of the PPP contract, committing the contracting authority to pay a certain or an

undetermined amount in case a specific event occurs. Usually such clauses are scattered throughout the contract, sometimes in an annex, or even an appendix to an annex.

Box 4. Contractual Risk Allocation

While a credible private-partner commitment on the performance of infrastructure is critical for PPP efficiency, some project risks may have to be assumed by government. Allocating demand risk to the private partner creates strong incentives for high performance, but there are many cases in which it is better to define performance incentives on good alternative ways such as availability payments conditional of satisfying a battery of performance indicators. When demand risk is too high, risk-transfer may be too costly and anyway extreme cases will transfer risk back to government (namely when the concessionaire goes bankrupt due to revenue scarcity).

Demand-risk transfer should be avoided or mitigated when incentives for demand growth are not desirable, such as in PPP prisons—where payments to concessionaires are expected to be based on the number of available cells and not on the number of prisoners. Evidence on this can be inferred from a famous case created by corrupt officials, the Kids-for-Cash scandal in the Luzerne county in Pennsylvania, United States, where judges were receiving kickbacks for sending juvenile offenders to prison, even for minor crimes, because the local private prison was paid according to the number of inmates. So, besides fiscal risks, poorly designed PPP structures may create relevant social issues, particularly in environments prone to corruption. PPP efficiency, fiscal risk containment, and social justice require that private partners are remunerated according to cell availability, and not cell occupancy—and that good practice has been adopted in the vast majority of PPP prisons in the world, from the United Kingdom and Spain, to Chile, Brazil, and Uruguay.

Source: Local judicial notices; William Ecenbarger (2012) *Kids for cash*, New York: New Press.

27. Some contingent liabilities are created even in well-structured PPP contracts. At a minimum, a PPP contract needs to stipulate the financial consequences of an early termination of the contract. Typically, this involves buying back the core assets and paying a compensation to the private partner; in some case it involves the direct assumption of debt of the PPP company. Early termination may occur due to prolonged force majeure events, private partner bankruptcy, its inability to deliver the contractually prescribed performance level, serious breach of the PPP contract provisions, or a unilateral decision by government. Contracts may also create other sources of contingent liabilities, such as minimum revenue guarantees; coverage of exchange rate volatility; or even debt guarantees. Contracts may also provide compensation for significant variations in the price of critical construction inputs. Payments are usually adjusted by inflation. As PPP contracts are expected to allocate risks according to the ability of each partner to manage respective risk and cope with its consequences, some risks will necessarily be allocated to the public partner, and therefore some contingent liabilities will arise out of a well-structured PPP contract.

28. PPP contracts also create implicit contingent liabilities for government. Implicit contingent liabilities also arise when projects or contracts are poorly designed. They are not legally binding, but they still exist, out of public pressure or group pressure. When a public authority signs a PPP contract for a project that has no financial sustainability, it is creating a liability for government, as public pressure will later induce government to strive for effective project implementation and service provision to end-users. Public pressure may also induce government to introduce contract changes that create additional fiscal costs. Also, when private partners are facing financial

difficulties, governments may be tempted to rescue them instead of rescuing the project, attracting opportunistic investors and fostering moral hazard. Liabilities may also result from PPAs (power purchase agreements) and similar agreements linked to the PPP contract, whereby another entity (for instance, an energy distribution company) guarantees a certain minimum consumption, paying compensation otherwise—when a state-owned company signs such PPA, an implicit (or sometimes explicit) liability is created for government, who must face the risk of paying compensation, or of buying energy at a loss.

Box 5. The Fiscal Cost of Implicit Contingent Liabilities

Common sources of fiscal risks are tolls and other fees that users cannot afford (or governments cannot politically sustain), and unrealistic business models. Portugal had to pay compensation to the PPP company in order to lower tolls in cross-Tagus bridges in Lisbon due to an electoral promise that implied contract renegotiation. South Africa paid compensation to delay the implementation of tolls in PPP roads because of public reaction against them. In Scotland, the Scottish Executive had to buy Skye Bridge in order to eliminate tolls when the devolution of power to the regional government led to a policy change. South Korea had to lower tolls and pay compensation regarding several PPP highways when citizens felt aggrieved for paying, as taxpayers, minimum-revenue compensation for low demand in highways whose cost they could not afford as road users. In Spain Unrealistic traffic forecasts forced the Spanish government to provide finance to the Madrid “radiales” highways even before it had to buy their assets. In Mexico, cost overruns plus a devaluation of the peso induced the government to buy the assets of its highway PPP concessionaires, in 1997, taking about US\$7.7 billion in debt.

Being long-term contracts, PPP may also suffer from change, namely technological, commercial, and demographic change. In the United Kingdom, the British Army had to costly renegotiate its PPP for worldwide telecommunications in order to accommodate for technological evolution. PPP contracts for local government information systems faced issues that led the British Parliament to recommend not using PFI in that area. Inverness Airport, in Scotland, had to be bought back by government because the payment of a high fee, as contractually prescribed, was preventing the development of low-cost travel in the region.

Source: Joaquim Miranda Sarmiento (2016) *Parcerias Público-Privadas*, Lisboa: Fundação Francisco Manuel dos Santos; Ronald W. McQuaid (2007) *The bridge to Skye*, in *Bridging Islands: The Impact of Fixed Links*, Acorn Press; Hyeon Park (2012) *Government support for PPP projects in Korea* (<https://www.unescap.org/sites/default/files/4b-Govt-support-PPPs-in-ROK.pdf>).

29. PPPs are particularly exposed to optimism bias and political interference. Optimism bias is the excessive reliance on optimistic project planning scenarios, disregarding risk and so underestimating project costs and overestimating revenue (see Box 6), Confidence in optimistic demand forecasts can make governments feel comfortable in providing guarantees on demand (expecting a low likelihood of them being called). Similarly, private companies may be willing to accept too much demand risk that they may ultimately not be able to afford if demand levels do not materialize in practice. Thus, optimism bias creates explicit and implicit fiscal risks, and the expected value of those risks cannot be easily computed for a project (even scenarios are hard to compute, except for the worst-case scenario, the upper bound on demand risk). Poor perception of real risks, bundled with the ability of PPPs to convert fiscal costs into fiscal risks, allows project selection to deviate from the country’s development policies and priorities, being manipulated by decision makers. Therefore, PPPs require adequate fiscal risk management, to restrict the use of PPP

procurement to the projects where it can deliver efficiency, and to effectively assess and manage their fiscal risks.

Box 6. Optimism Bias in Infrastructure: Optimistic Cost Expectations

Optimistic Cost Expectations

Although common, optimism bias is not an unavoidable plague. The Golden Gate Bridge, in San Francisco, United States, is perhaps the most striking example. A non-PPP project built in between 1933 and 1937 with the longest and highest span in the world, and under harsh water-current conditions, it was built on time and on budget (actually with a small surplus), most possibly due to the financial constraints imposed and the strict project governance. Most public infrastructure projects suffer significant cost overruns, as demonstrated by numbers collected by Flyvbjerg regarding transport projects (24% cost overrun in roads, 40% in railways, in a sample of 1603 projects from 17 countries, spanning almost one century) and by Sovacool et al. for energy projects (average 66% cost overrun in 401 projects, reaching 71% for hydroelectric dams and 117% for nuclear reactors). Anecdotal evidence regarding non-PPP projects highlights Boston's Big Dig, United States (the highway tunnels replacing the former elevated structures) with a 478% cost overrun, and Forrest Highway in Australia, with a final cost over five times the amounts politicians initially promised it would cost.—in both cases linked to significant scope changes. Bent Flyvbjerg identifies several reasons for what he calls “strategic misrepresentation” of projects by their proponents in government, aiming at maximizing the probability of having it approved.

PPP projects typically reduce cost overrun due to the due-diligence project review required by financing parties, the more robust cost estimates prepared by bidders at tender time, and the reduced space for scope changes. The scarce statistical data suggest much lower cost overruns. Duffield et al., in Australia, studied a sample where 25 PPP projects faced 4.3% cost overruns when measured from contractual commitment to the final outcome, while 42 traditionally procured projects had a 11.4% cost overrun. They found that PPP projects had significant delays prior to execution, but then they “provide far greater cost certainty than traditional contracts”. Vasco da Gama Bridge, a Euro 900 million, 11-km PPP bridge over the Tagus in Lisbon, Portugal was built on time and on budget (as were Portuguese highway PPPs in general); Sydney's Cross-City Tunnel also had no cost overrun. While PPPs in general are not known for significant cost overruns, there are also some counterfactual examples. The EuroTunnel resulted in roughly 100% cost overrun—but it managed to survive challenges and bankruptcy, avoiding the need for governments to step in.

The evidence does not say that PPPs are cheaper, but only that cost estimates at time of contracting are more reliable, in general. Contrary to traditional procurement, PPPs usually do not create fiscal risks via cost overruns, but instead they tend to create fiscal risks later, during the operational phase, if processes are not well managed.

Optimistic Revenue Expectations

Optimism bias in PPPs often occurs when demand is over-estimated. The fiscal illusion created by PPPs is amplified when project costs are fully covered by expected revenue from users—so there are strong incentives for consultants to present scenarios with high demand, and strong incentives for decision-makers to focus precisely on the high-demand scenarios, downplaying or simply ignoring alternative scenarios. The Fertagus rail project, in Portugal, exemplifies how optimism bias can drive the procurement of PPPs. Its first contract, dated from the 1990s, was based on a demand scenario where fees would cover costs and the concessionaire remuneration, allowing for the authorities to announce the project “at no cost for government”, while the concessionaire signed the contract under the protection of a minimum revenue guarantee, which was later called.

Many other projects in the transport sector face demand significantly lower than initially expected, having

Box 6. Optimism Bias in Infrastructure: Optimistic Cost Expectations (concluded)

led to guarantees being called, or fiscal risk being realized when the project company fails. Minimum revenue guarantees have been called in many PPP projects, ranging from cases where government is asked for continued support (e.g. Evergreen light rail and Busan metro line in South Korea, Gautrain in South Africa) to cases where most fiscal support corresponds to periods of recession (e.g. Chile and Colombia). In Spain, the financial collapse of Radiales highways (facing demand levels around 20 to 30 percent of initial expectations) forced government to buy the assets, in a multi-billion Euro operation. The bankruptcy of Ciudad Real Airport (a Euro 1 billion privately financed initiative that attracted scarce air traffic) in Spain had no direct fiscal cost, but affected the regional credit union, which needed itself government support. Some governments have been more successful in avoiding fiscal costs from troubled projects (e.g. demand-afflicted Sydney Cross-City Tunnel). Accepting specific risks in PPP contracts is often the right solution, but requires good due diligence and independent review, namely investigating how realistic are demand forecasts.

Sources: Gerd Schwartz et al. (editors. 2020) *Well Spent: How Strong Infrastructure Governance Can End Waste in Public Investment*. Washington DC: International Monetary Fund; Bent Flyvbjerg (2003) *Megaprojects and risk*, Cambridge University Press; Benjamin K. Sovacool et al. (2014) *An International Comparative Assessment of Construction Cost Overruns for Electricity Infrastructure*, Energy Research and Social Science 3 (2014) 152-160, Institute for Energy & the Environment, Vermont Law School, USA; Colin Duffield et al. (2008) *Report on the performance of PPP projects in Australia when compared with a representative sample of traditionally procured infrastructure projects*, research report, University of Melbourne; Joaquim Miranda Sarmiento (2016) *Parcerias Público-Privadas*, Lisboa: Fundação Francisco Manuel dos Santos.

30. Contract renegotiations are common. Due to changes in technology or demand, or unexpected events, long-term contracts are expected to face some renegotiation during their life. But evidence shows that too often PPPs face repeated renegotiation, starting in their first few years. And often it is the public authorities that initiate renegotiation, giving a bargaining advantage to the private partner (who can always refuse to change the terms of the contract, except when forced and compensated). In some cases, the possibility of extending a concession for a few more years helps disguising the fiscal cost of the renegotiation, when the loss of future revenue is not fully perceived as a fiscal cost.

Box 7. Renegotiation in Practice

Renegotiations are common in PPPs. Even countries with good regulatory frameworks for PPPs, such as Chile, have been plagued by excessive renegotiation. In Colombia, the frequency and volume of renegotiation of road PPPs were so high (roughly one renegotiation per year per contract, with volume of contracts trebling) that government decided to cap the level of amendments to PPPs contracts as a percentage of the original value of the investment. In India, the initially very low rate of renegotiation of their extensive road PPP program, was followed by a wave of arbitrations in the mid-2010s, with roughly one hundred road contracts in arbitration at a single point in time. Renegotiation processes initiated under pressure of interest groups, prior to having a robust team and a well-defined strategy tend to create, not only costs, but also additional fiscal risks—the renegotiation of Vasco da Gama Bridge, following an electoral promise, led not only to compensation for reduced tolls, but also for some risks to be transferred back to government (e.g. major maintenance of the old Tagus bridge). PPP operators can also initiate opportunistic renegotiation, either when facing an event that may affect service delivery and create public pressure upon government, or when feeling that they can bring political value (e.g. inaugurations during an electoral campaign).

Sources: Engel et al (2020) *When and How to Use Public-Private-Partnerships in Infrastructure: Lessons from the International Experience*, NBER (available at <https://www.nber.org/papers/w26766>); William Dachs (2014) *Developing a Framework for Renegotiation of PPP Contracts*, Ministry of Finance, India (www.pppinindia.gov.in); Joaquim Miranda Sarmiento (2016) *Parcerias Público-Privadas*, Lisboa: Fundação Francisco Manuel dos Santos.

31. Contract renegotiation tends to favor private-sector operators and reduce PPP efficiency.

While PPP procurement is expectedly done under competition, renegotiation is usually done under no competitive pressure and with information asymmetry. Poor negotiating skills often compound low government bargaining power, leading to efficiency losses.

32. Unsolicited proposals for PPPs create a particular challenge for governments.

An unsolicited proposal is a proposal made by a private party to undertake a PPP project, submitted at the initiative of the private party rather than in response to a request from the government. The evidence presented in World Bank (2018) shows that contrary to expectations, they usually do not accelerate infrastructure delivery and do create significant fiscal risk and governance issues. Low capacity by public procuring entities to identify, prepare and evaluate infrastructure projects, and the incentive to move projects off budget are often identified as main reasons for the acceptance of unsolicited proposals.

Box 8. Examples of Risks of Unsolicited Proposals

The evidence on unsolicited proposals for PPPs (see, for instance, the 2018 World Bank study) shows that they have created significant delays in relevant projects, and often do not effectively deliver the needed infrastructure assets. For instance, unsolicited PPP contracts for roads in Ghana, hydroelectric dams in Albania, and airports in the Philippines, have been signed and never delivered. Some governments do not accept unsolicited proposals. Other governments did effectively contain unsolicited proposals for PPPs by creating strict legal frameworks for their presentation, requiring rigorous scrutiny of those proposals and contract drafting by government. Examples include the State of Victoria in Australia, Virginia in the United States, and South Africa. In South Korea, government accepted many unsolicited proposals for projects in different areas, with many in transportation. In unsolicited highway PPPs, government accepted to allow tolls higher than the usual tolls in other highways, while providing minimum-revenue guarantees. This resulted in traffic diversion away from the most expensive highways, with government paying minimum-revenue compensation to low-demand roads, and users rightfully complaining that, as taxpayers, they were subsidizing the operators of roads that they could not afford to use. To mitigate the paradox, government had to unilaterally lower tolls and pay the corresponding compensation to PPP operators. Currently, the legal framework in South Korea no longer accepts to provide minimum revenue guarantees to unsolicited proposals.

Sources: The evolution of South Korea mechanisms for fiscal support of PPPs is described in Hyeon Park (2012) *Government support for PPP projects in Korea* (<https://www.unescap.org/sites/default/files/4b-Govt-support-PPPs-in-ROK.pdf>); and U.S. Federal Highway Administration (2016) *Revenue risk sharing for highway PPPs* (www.fhwa.dot.gov/ipd/p3/toolkit/publications/reports_discussion_papers/revenue_risk_sharing/appendices.aspx); World Bank (2018) *Policy Guidelines for Managing Unsolicited Proposals in Infrastructure Projects*, Washington DC.

33. The acceptance of unsolicited project proposals can create a potentially large deviation from strategic priorities and prevent competition during procurement.

Unless unsolicited proposals are restricted to specific sectors, allowing private entities to prepare and propose projects in which government will then assume liabilities (even if only contingent liabilities) creates the risk that resources are deviated from priority sectors and priority projects to projects less relevant for economic growth or the quality of life, but still profitable from a private viewpoint. Even

when subject to competition, a contract originated in an unsolicited proposal usually does not spur effective competition. There is evidence that the vast majority of tenders for unsolicited PPPs present a single bidder. One of the main reasons is that the firm that presented the unsolicited proposal has an advantage over any potential competitor: it has already done its due diligence, and it knows the project very well. As bidding for a PPP contract is costly, firms naturally refrain from presenting costly bids when they know that a competitor has a built-in advantage.

C. Fiscal Risks Originating in Poor PPP Governance

34. Fiscal risks from PPPs are exacerbated by weaknesses in infrastructure governance. The latter comprises the public institutions, processes and procedures that guide government decisions in planning, allocating funds and implementing public investment projects, including PPPs. All aspects of infrastructure governance are under direct government control. Therefore, risks related to infrastructure governance originate from government action and/or inaction. Identifying these risks would allow governments to take actions to minimize and manage them properly.

35. A large portion of fiscal risks in infrastructure originate from weaknesses in the early stages of the project cycle, mainly during strategic planning and project appraisal. While we should not downplay the relevance of having a well-structured contract, we need to acknowledge that too many fiscal risks originate in (a) the poor quality of project selection, (b) the inadequacy of PPP for the project at stake, or (c) government willingness to sign a contract with no realistic financial feasibility—all this leading to fiscal risks materialization, or pressure for renegotiation and further risk acceptance.

36. Many governments tend to create parallel evaluation, approval, and management processes for PPPs, significantly increasing fiscal risks. This happens when PPPs are treated fully off-budget, meaning that the usual legislative oversight does not fully apply. Typically, separate project pipelines are created, with PPPs following a completely different and sometimes much simplified approval process. Even when PPPs are subjected to a rigorous appraisal under their separate process, these practices reduce budgetary discipline and weaken the role of the budgetary authority to safeguard fiscal sustainability in the public investment management framework.

37. By keeping PPPs off-budget, governments can increase long-term commitments in infrastructure without legislative scrutiny or oversight, jeopardizing fiscal sustainability. In many cases PPPs are regarded as a way to spend more in infrastructure circumventing budgetary controls and legislative oversight. This happens not only with new PPP projects but also with amendments to existing contracts. For example, when governments ask for additional works to the initial project and pay with an extension of the duration of the contract or by committing to payments by future administrations. The effect is to reduce fiscal resources available to future governments without the budgetary oversight process. Off-budget treatment and poor budgetary transparency of PPPs increase the government's risk exposure and creates incentives for PPPs to be perceived as adding fiscal space for additional projects (fiscal illusion). This jeopardizes fiscal sustainability and increases the probability that low-quality projects are implemented.

Box 9. Fiscal Illusion and Fiscal Sustainability

Fiscal illusions regarding PPPs have resulted in many governments accumulating too much liabilities in PPPs, jeopardizing fiscal sustainability as well as overall macroeconomic stability. Portugal exemplifies this, and the measures countries can take to prevent it. In the 1990s and 2010s, Portugal had been able to procure and build one of the best highway networks of Europe both per capita and per area, with the whole network under PPP schemes. PPP projects were reviewed and approved under a gateway process where the Ministry of Finance had veto power, while the Ministry of Public Works defined the policy. But when in the late 2000s the road agency, *Estradas de Portugal*, was converted into a commercial public corporation, its off-budget status exempted it from the gateway process, allowing it to engage in a new large road PPP program, with scarce supervision. Therefore, at a moment when government was starting to face the cost of funding half of the network (with tolls funding the other half) and several PPP contracts for high-speed railways were being procured, new PPP liabilities were being created for new highways. During the crisis of the early 2010s, the full realization of the extent of fiscal commitments under the new contracts forced government to recognize that it could not afford them, canceling (with compensation) the new contracts and negotiating the conversion of shadow-toll contracts into availability contracts in order to allow for the introduction of tolls in several of the recently-built highways. At the same time, the whole high-speed rail program had to be canceled, and the construction of a new Lisbon airport postponed.

Source: Legislation (<https://dre.pt/web/en/home>) and audit reports by Tribunal de Contas (<https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/Pages/Relatorios-do-Tribunal-de-Contas.aspx>).

38. Similarly, fiscal risks from PPPs increase when they are implemented outside the central government, with limited central oversight. PPPs undertaken by subnational governments or public corporations are good examples. Central oversight over PPPs implemented outside the central government is often quite limited, and requires strong intragovernmental coordination, which is not always easy to achieve. The ability of converting costs into PPP fiscal risks, coupled with the expectation of being able to shift risk occurrence to upper levels of government, may generate moral hazard, both in PPP project selection and in PPP procurement. Capacity to develop PPP projects and structure PPP contracts may also lack if there is no system for sharing knowledge among government officers in the country. Moreover, many governments created public entities in the form of public corporations to take responsibility for the design, construction, and implementation of public assets (e.g., road agencies), sometimes with an objective of circumventing budgetary restrictions. PPPs undertaken by these public entities increase fiscal risks, given that these are ultimately public assets.

39. Fiscal risks are aggravated when public corporations are major PPP shareholders, and when the project is significantly financed by public financial corporations. In some countries, public corporations are allowed to sign “PPP” contracts with public entities, as if they were private entities. The absence of shareholders’ private capital at stake in those contracts reduces incentives for efficiency—due to moral hazard, from the perception that government will be more easily convinced to rescue the public corporation if in need—and increase fiscal risk—as actually governments tend to rescue those public corporations. Even public corporations considered to have an arm’s-length relationship with government may create significant fiscal risks for government when they accumulate a large volume of PPP commitments. Similar moral hazard, and consequent loss of efficiency, is experienced when projects are financed by state-owned banks and other government-owned financial entities. The extent of fiscal risks depends on private-sector

guarantees—for instance, the European Investment Bank (a government-owned multilateral bank) provides finance to private PPP concessionaires but mitigating its risk (e.g., requiring private-sector bank guarantees during the construction period).

Box 10. Fiscal Risks Originating in Subnational Governments and Public Corporations

Governments may also be implicitly affected by PPP risks that do not explicitly affect them but create liabilities to public corporations or to subnational governments. In countries with a layered structure of government, those are a significant source of PPP fiscal risk in all continents—because of moral hazard and capacity issues discussed above. In Turkey the central government had guaranteed the take-or-pay municipal commitment to İzmit Su A.Ş. (the PPP project company for the İzmit Domestic and Industrial Water Supply Project). When its water treatment plant was commissioned in 1999, demand expectations had dropped and municipalities had cheaper supply alternatives, so the commitment to buy water from this plant was not satisfied and the guarantee was executed, with Treasury replacing municipalities in paying the PPP company, disbursing more than US\$2 billion until 2014. When in 2010 the PPP concessionaire completed construction of Yongin Rapid Transit, in South Korea, the contracting authority, Yongin city government, demanded the resolution of safety and noise concerns, delaying the start of operation. The concessionaire resorted to the Paris-based International Court of Arbitration, that ruled Yongin city government should pay compensation amounting to 453 billion won, about 40 percent of the city's annual budget. When the operation started, demand was so low that the city government had to pay compensation under the minimum revenue guarantee agreed in the contract. Unable to cope with these liabilities, the city required support from the Korean government. In 2010, in Brazil, when a new 298-bed PPP hospital opened in Subúrbio, Bahia, the local municipality permanently closed two health centers in its vicinity, forcing the hospital to accept additional demand with a reduced case-mix, leading to the payment of compensation by the state government that had procured the PPP. In 2011 Portugal's government decided to bail out the regional government of Madeira, the Atlantic archipelago, which had procured a volume of highway PPPs it could not afford. In South Africa, the contingent liabilities regarding the PPP highway between Pretoria and Johannesburg forced the National Treasury to provide additional financial support to the road agency SANRAL, which had accepted the risk and could not cope with their impact. Implicit fiscal risks for central governments are also created by commitments assumed by public corporations, as public partners and as electricity or water off-takers. The signature of power-purchase agreements, often with take-or-pay schemes, if not disclosed and scrutinized, may lead to overexposure of signatories—over-optimistic demand expectations may arise, and demand subsidization may put pressure upon central government as supply increases.

Sources: Gerd Schwartz et al. (editors. 2020) *Well Spent: How Strong Infrastructure Governance Can End Waste in Public Investment*. Washington DC: International Monetary Fund; Turkey Undersecretariat of Treasury (2015) *Public Debt Management Report* (ms.hmb.gov.tr/uploads/sites/2/2018/12/Public-Debt-Management-Report-2015.pdf); Park Jinyoung & Mun Jinsu (2014) KOTI Knowledge Sharing Report #11: Korea's Railway PPP Projects, Korea Transport Institute (https://centers.ibs.re.kr/html/living_en/transport/KSP%2011%20Korea%C2%B4s%20Railway%20PPP%20Projects.pdf).

40. Inadequate skills and capabilities in public agencies implementing and managing PPPs expose governments to additional risks. PPPs are financially more complex than traditional public investment projects and require a deep understanding of all potential sources of risks for government. PPPs also require dedicated management teams in government agencies, that are capable to take actions to ensure the quality of infrastructure assets and services and protect public interest during the long-term. Infrastructure quality, as expressed in the G20 *Principles for Quality Infrastructure Investment* and re-affirmed in the G20 *Osaka Leaders' Declaration*, 28-29 June 2019, is essential for maximizing the positive impact of infrastructure to achieve sustainable growth and development while preserving the sustainability of public finances. Similarly, managing long-term

contracts also involve ensuring that potential contracts amendments do not distort the incentives of the original contract. Sectoral governance, with contracts adapted to the regulatory framework, and regulations that are compatible with private management of infrastructure, may be critical for serving the needs of users and mitigating fiscal risks.

MANAGING PPP FISCAL RISKS

41. PPPs have a role in public investment programs, both in normal times and as part of fiscal stimulus interventions. Although PPPs are not suited for many investment projects, they may have a critical role in some complex projects, particularly in infrastructure programs where the level of service depends on variables where the private sector typically has more experience, knowledge and control.² Irwin et al. (2018), OECD (2012), Schwartz et al. (2020), and Kim et al. (2020) discuss principles for sound governance for PPPs, particularly the integration of public investment management and PPPs in a unified framework.

42. To implement PPPs soundly, governments need to strengthen their infrastructure governance, within the whole public sector, from procuring to monitoring agencies. The critical governance elements that governments should have in place to manage the fiscal costs and risks from PPPs include: (a) a gateway process governing the preparation and procurement of PPP projects with a strong role of the Ministry of Finance; (b) a proactive fiscal risk management function for PPPs in the Ministry of Finance; (c) budgeting, accounting, and reporting standards and practices that ensure fiscal transparency regarding PPPs; (d) an enabling legal framework that is clear and consistent. Country examples of good practices are also presented in the following paragraphs.

A. A Gateway Process for PPP Preparation and Procurement

43. The Ministry of Finance should be able to stop or suspend a project at any stage of the project cycle if deemed fiscally unaffordable or if it exposes government to excessive risks through a gateway process (Figure 1). Given the long-term nature of PPPs, the Ministry of Finance should be able to ascertain that a PPP project is efficient and affordable in the medium and long-term (i.e., governments commitments over the entire project cycle). The role of the Ministry of Finance should not be limited to endorsing the final decision of a procuring agency or the Executive (i.e., checking if the project is fiscally affordable just before the contract is awarded). Experience shows that at the awarding phase, the Ministry of Finance has a limited capacity to stop a project when deemed inefficient or unaffordable, due to the political momentum and social pressure to deliver the project, at that advanced stage. Therefore, PPPs should be evaluated by the Ministry of Finance from early stages of the project cycle (e.g. pre-feasibility and feasibility) to ensure that projects are implemented only if they are deemed efficient and affordable considering current and future budgetary restrictions. In some countries the Ministry of Finance reviews, within the gateway process, the economic efficiency of the project, the added value of using the PPP procurement

² For examples of fiscal risks in infrastructure, see Schwartz et al., editors. 2020. *Well Spent: How Strong Infrastructure Governance Can End Waste in Public Investment*. Washington DC: International Monetary Fund.

route, the fiscal affordability of the project considering its fiscal risks, and the institutional capacity to manage the PPP. See Box 11 for examples.

Figure 1. A Generic Gateway Process for Managing PPPs

Phase in project cycle		Tasks of the MoF on approval/rejection of projects, including PPPs
Phase 1: Pre-feasibility	1	Assess and give opinion on fiscal affordability of project based on pre-feasibility analysis
Phase 2: Feasibility	2a	Assess and approve fiscal affordability of project based on feasibility study
	2b	Assess and approve fiscal affordability and efficiency of PPP as procurement method
Budget		Facilitate project selection in line with budget envelope and policy priorities
Phase 3: Tendering	3	Assess and approve fiscal affordability of tendering document (draft contract)
Phase 4: Bidding, negotiation and contract signing	4	Assess and approve fiscal affordability of final contract
Phase 5: Construction and Operation	5	Monitor project implementation, fiscal implications – budget and debt
		If contract renegotiation, assess and approve fiscal affordability of changes

Note: The Ministry of Finance (MoF) may have also a role in reviewing economic efficiency. Source: IMF staff.

Box 11. Examples of Gateway Processes for Controlling PPP Liabilities and Risk

PPP approval processes should be supported by appropriate gateway safeguards to ensure that only efficient and fiscally affordable PPP projects are allowed to advance. The gateway process, which covers project identification, appraisal, selection, resource allocation, and procurement, is a sequence of decision points where many institutional actors have specific responsibilities (e.g. procuring agencies, Ministry of Finance, approving bodies, etc.). In particular, the role of the Ministry of Finance in the gateway process is key to safeguard public finances against excessive fiscal costs and risks from PPPs. A clear and effective gateway process provides a space for evidence-based decisions and allows the finance minister to stop a PPP project that does not provide efficiency or that puts public finances at risk. It keeps sectoral policy responsibility in the hands of line ministers while providing a degree of filtering by the Finance Minister.

Some countries with significant PPP programs, such as the United Kingdom, Portugal, and South Africa, have created gateway processes specifically to contain fiscal costs and fiscal risks. In South Africa, the central government also has oversight and approval responsibilities for PPPs developed in local governments; The National Treasury requires four stages or gateways: (i) feasibility stage; (ii) tender documents, i.e. tender rules and draft contract, (iii) bid evaluation; and (iv) approval of the final contract terms. In Portugal, the gateway process requires that PPPs must be reviewed by the UTAP (a PPP unit within the Ministry of Finance) and approved by the Finance Minister at several stages. The process requires that project development is led by a steering committee that includes UTAP members, and that tender documents are thoroughly reviewed by UTAP before the Minister approves the call for tender: later the Minister authorizes the respective line minister to sign the PPP contract after a review by UTAP; any renegotiation of the contract also requires involvement of UTAP and approval by the Finance Minister.

Sources: South Africa *Public-Private Partnership Manual*, <https://www.gtac.gov.za/Publications/1160-PPP%20Manual.pdf>; EPEC, European PPP Expertise Centre (2014) *Portugal: PPP units and related institutional framework*, Luxembourg: European Investment Bank.

44. To ensure fiscal discipline in PPPs, a gateway process managed by the Ministry of Finance is warranted. The gateway process ensures that PPP projects pass a sequence of “gates”, with due-diligence and approval in each one. A gateway process minimizes fiscal illusion and promotes public investment efficiency. To ensure the most efficient allocation of scarce public resources in line with policy priorities, the gateway process should require PPPs to compete with other investment projects in a level playing-field. This can be achieved through a two-step approach. First, the decision on whether to undertake an investment project—regardless of the type of procurement—should be based on technically sound appraisal techniques. The choice of procurement route—i.e., as traditional public procurement or a PPP—should be a second step to ensure that PPPs are pursued “only” if they are the most efficient option and are fiscally affordable.

45. A PPP gateway process also improves the quality of infrastructure projects. As projects are reviewed by the Ministry of Finance during their preparation phase, and then draft contracts during procurement, a checks-and-balances mechanism operates, creating incentive for optimism bias and overconfidence of project managers to be contained, and enhancing accountability. Effective fiscal risk management in the Ministry of Finance will require questioning of announced expected costs and benefits of projects, and associated risks, leading to more robust projects and more efficient and resilient contracts.

B. A PPP Fiscal Risk Management Function in the Ministry of Finance

46. A strong infrastructure governance framework requires a fiscal risk management function. While other areas of risk management are typically well developed (e.g., macroeconomic risks), only a few countries have made significant progress in managing fiscal risks from PPPs. The objective is to enable governments to move from an ad-hoc reactive behavior towards PPPs (e.g., addressing PPP fiscal risks once they materialize) to a proactive management function of fiscal risks arising from them. This function requires governments to systematically identify, estimate, and manage fiscal costs and risks from PPPs, including vetoing projects or contracts with too high costs or fiscal risks, and taking actions to mitigate risks and absorb those that cannot be mitigated. The function also needs to be at the core of the gateway process governing each individual project, as well as the whole portfolio of infrastructure projects, looking at the aggregate risk and at the ways risks are correlated among projects. Key steps to develop this function include:

- **Fiscal costs and risks from PPP should be centrally managed.** The Ministry of Finance should be responsible for proactively managing fiscal risks from PPPs as well as any other large infrastructure project. While different contracting agencies (e.g., line ministries, subnational governments) are responsible to manage PPP contracts from project identification, construction, to operation, fiscal risks management should be primarily the responsibility of the Ministry of Finance, which includes identifying, estimating and managing fiscal costs and risks from PPP contracts. To perform this function, the Ministry of Finance should have a clear mandate prescribed by the legal and regulatory framework, should be in charge of a strong gateway process, and should have the technical skills to

identify, estimate and mitigate fiscal risks from PPPs. The PPP Fiscal Risk Assessment Model (PFRAM 2.0) can be a valuable resource for governments (see Box 12) to assess the impact of PPPs on overall fiscal space. Other IMF resources include the Debt Sustainability Analysis framework (LIC-DSF and MAC-DSA) and the Fiscal Space Analysis.³ Within the Ministry of Finance this function can be implemented in different ways. Some countries created specialized units within the Ministry (e.g., PPP units, investment units, fiscal risk units) with the necessary technical skills to manage fiscal risks from infrastructure projects including PPPs. Other countries assigned this function to existing departments or units (e.g., budget department, debt management office, etc.). Countries implementing a PPP gateway process always face concerns regarding possible excessively bureaucratic procedures leading to a low and less than desirable number of projects completed—therefore the design of the gateway should consider the trade-offs between the thoroughness of the process and the need for swift project implementation, and investments in capacity building are required.

- **PPP risk management should start at early stages of the project cycle and take a whole life-cycle approach, as with any other public investment project.** Early identification, at the planning stage, of main sources of fiscal risk in PPPs is critical to inform investment decisions and to prevent scarce resources being spent on projects that do not add value to society or are poorly aligned with government strategies. For example, the Ireland National Planning Framework is supported by a 10-year capital plan to enable objectives set out in the framework. Housing was identified as one of the national priorities, which requires both public and private financed infrastructure to be undertaken by different levels of government. The capital plan for social housing is a good example of mitigation measures, by ensuring adequate interdepartmental coordination of all investment projects at the planning stage. Proactive risk management is also important at the allocation of funds and implementation stages. Some countries, like Denmark and Germany, include in their budgets a contingency margin for infrastructure projects including PPPs to deal with uncertainties in project costing. During the project implementation phase, proactive risk management requires adequate funding for PPP payments and continuous assessment of fiscal risks by the Ministry of Finance, while contracting authorities manage PPP contracts throughout their term.
- **The Ministry of Finance fiscal risk management function should cover not only the assessment of individual PPP projects but also the overall PPP portfolio.** PPP fiscal risks tend to be correlated among themselves and with other public investment projects (e.g., network effects), and are usually highly dependent on key macroeconomic variables (e.g., GDP, nominal exchange rate). Therefore, the Ministry of Finance should take decisions at the

³ DSA analysis for low income countries <https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/02/14/pp122617guidance-note-on-lic-dsf>; for market-access countries <https://www.imf.org/external/pubs/ft/dsa/mac.htm>; and the fiscal space analysis <https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/06/15/pp041118assessing-fiscal-space>

portfolio level to account for project correlations, evaluating projects as part of a system rather than in isolation.

- Aggregate limits to PPPs can also be useful.** Although limits per se do not guarantee that PPP costs and risks are better managed, they are a second-best solution when PPPs are not fully integrated in the budget cycle and medium-term fiscal framework, and/or the role of Ministry of Finance is not supported by a strong gateway process. Apart from ensuring that each project brings efficiency when contracted as a PPP, the Ministry of Finance has to determine whether the sum of PPP-related liabilities is affordable. This can be done in different ways. Some countries have limited the size of the PPP programs by capping annual government payments to PPPs (e.g., Brazil, Colombia, Hungary). Others have limited the stock of the government's commitments in PPPs (e.g., Peru, El Salvador, Honduras), or the flow of new commitments, that is to say not only the cash spent during the budget year but also commitments affecting the medium-term fiscal framework (e.g., Finland, France). Limits can also be imposed on the value of government guarantees granted to PPPs (e.g., Cambodia). The adequacy of the limit depends on specific country circumstances, such as the deficit and debt levels, the type of PPP contracts being implemented, as well as government liquidity and solvency considerations. Effective caps require clear and unambiguous metrics and effective monitoring. See more in Box 13.
- Periodic reviews of PPP efficiency and affordability are critical.** Some countries review their decisions to pursue PPP programs when pressed by crisis situations—as Portugal did in 2011 during a fiscal crisis, canceling the high-speed rail program. Other countries do those reviews in the wake of sectoral audits or broader PPP evaluations. Following an evaluation of the PFI model, and particularly of the inclusion of several services in PPPs that did not include asset operation, PFI was replaced by a new PPP model, PF2, later also abandoned. In France, audits in social sectors led to the prohibition of PPPs for hospitals. Large sectoral programs were canceled, for reasons of efficiency, in several countries (e.g. schools in Egypt, prisons in South Africa, prisons and tribunals in France). Indonesia is currently relaunching a highway PPP program based on a new PPP model, improving on a previous model that had been unsuccessful. Colombia has been periodically reviewing the PPP model for roads, changing contractual provisions as learning and market conditions allow—Colombia's most recent contracts follow the fourth, improved contractual risk allocation matrix.

Box 12. PPP Fiscal Risk Assessment Model (PFRAM 2.0)

PFRAM 2.0, developed by the IMF and the World Bank, is an analytical tool to assess the potential fiscal costs and risks arising from PPP projects. Since it was launched in April 2016, it has been used in the context of IMF and World Bank technical assistance, and by country authorities—mainly PPP units in ministries of finance—to estimate fiscal costs and risks arising from typical PPP contracts in line with international accounting and statistical standards.

It does not substitute a complete project financial assessment, but it can assist budgetary authorities to better understand the sources and potential fiscal impact of different risks materializing (e.g., demand slowdown, currency appreciation, contract termination).

Box 12. PPP Fiscal Risk Assessment Model (PFRAM 2.0) (concluded)

It allows users to analyze both specific PPP projects and/or a combined portfolio of up to 30 projects, at different stages of the project cycle. While it does not explicitly model correlations among projects, it has the capability to perform scenario analysis and estimate the impact on individual projects, as subset of them, or the entire portfolio, of changes in key macroeconomic variables as GDP, inflation or nominal exchange rate.

The tool can also be used to assess a PPP project idea and compare potential fiscal costs and risks from different contract structures and funding options.

PFRAM is available in English, Spanish and French, with a user manual including exercises.

Source: <https://www.imf.org/external/np/fad/publicinvestment/>

Box 13. Limits to Government Exposure to PPPs

Beyond managing fiscal exposure on a project basis, limiting the size of the PPP portfolio can be useful for managing fiscal risks while safeguarding public finances, particularly in cases where the legal, regulatory and institutional framework supporting PPPs is weak or still developing. While not a substitute for fiscal discipline in medium-term planning, limits can help to contain PPP commitments and fiscal risks to affordable levels.

To achieve this objective, limits should be measured using an unambiguous measure that capture the overall fiscal exposure, so they can be credible and verified by independent experts. There is no rule of thumb for the level at which PPP limits should be set. The assessment of the maximum size of a PPP portfolio should be guided by the medium-term budget framework and debt sustainability analysis. These should incorporate PPP-related fiscal commitments, expected government payments, as well as sensitivity analysis of the likelihood of risks materializing under various scenarios (e.g., guarantees, contract termination).

Some countries impose limits on PPP-related flows. In the United Kingdom, PPP-related payments were limited to £70 billion across a five-year period from fiscal year 2015-16 (£14 billion a year on average). This amounts to 0.8 percent of the GDP in the first year parliament introduced this limit. In Brazil, the 2004 Federal PPP law initially sets a ceiling on current spending from PPP contracts of one percent of net current revenue, applicable to all levels of government. The limit was subsequently raised in 2009 to three percent, and in 2012 to five percent. New subnational PPP commitments cannot be guaranteed by the federal government if: (i) existing commitments already amount to 5 percent of net current revenue or (ii) the new contract would entail commitments in excess of 5 percent of net revenues at any time during the forthcoming 10 years. In China, PPP fiscal liabilities allocated from the budget of any local government shall not exceed 10% of its annual expenditure—and when those liabilities account for more than 10%, no new PPP project can enter the Project Management Database, implying that no new PPP project will be developed.

Others choose to limit PPP-related stocks. Peru imposes a limit on the present value of the total fiscal commitments to PPPs (excluding governmental finance entities), which shall not exceed 12 percent of GDP. However, every three years, the President may, with the endorsement of the Ministry of the Economy and Finance, issue a decree to revise this limit, depending on the infrastructure needs of the country. The State of Karnataka in India limits the stock of guarantees at the beginning of the financial year to 80 percent of the government's revenue two years before.

Sources: United Kingdom NAO, "Report on PFI and PF2", January 2018; Brazil's Federal PPP Law (BR 2004a, Law 11079); China, *Implementation Opinions on Promoting Regulated Development of PPPs* (<http://www.cpppc.org/en/czb/999020.jhtml>); Peru Legislative Decree No. 410-2015-EF (PE 2015).

47. Many countries have a PPP unit in a central ministry. This unit serves basically as a central pool of expertise on PPPs, and usually has a relevant role in establishing good project assessment and contract preparation practices. In most countries, PPP units are hosted by a central ministry, such as the Ministry of Finance or the Ministry of Economy. When that unit sits in the

Ministry of Finance and it includes the promotion of PPPs among its roles, prevention of conflicts of interest dictates that another department in the ministry should assume the fiscal risks management function.

C. PPP Fiscal Transparency

48. The effective management of fiscal risks requires transparent reporting practices, ideally anchored in budgeting and accounting standards that minimize fiscal illusion. The way PPPs are budgeted and accounted for in public accounts is an important factor contributing to the ability of governments to manage fiscal costs and risks arising from them. If, contrary to what happens in traditional public procurement, the investment through PPPs does not increase the government's deficit and debt during the construction of the asset (e.g., road, school), the government is exposed to fiscal illusion. In that case, the government would tend to use PPPs irrespective of their associated fiscal costs or risks or overall efficiency. Government could consider the following actions to improve the management of fiscal costs and risks from PPPs:

- Ensure that PPPs have the same effect on the most prominent measures of deficit and debt as traditional public procurement. The objective is to avoid any bias being introduced by the budgetary, accounting or statistical treatment of PPPs.
- From a budget perspective this is achieved by fully integrating PPPs in the budget process and medium-term budgetary framework and treating all infrastructure projects equally. Two steps in the budget appropriation process would be required. First, appropriating total project costs at the time of budget approval regardless of how they are finally procured. As a second step, cash appropriations would cover only for those projects that are procured traditionally. This practice would ensure that PPP are subjected to budgetary controls by the Ministry of Finance and legislative oversight.
- From an accrual accounting and statistical perspective this is achieved by classifying the asset built or purchased through PPP contracts on the government balance sheet. In this case, governments would include initially both an asset and a corresponding liability of the same value. Under accrual accounting and statistics, both PPPs and traditional public procurement increase the deficit and debt during construction, eliminating the possibility of fiscal illusion.⁴ This can be applied even if governments are not the legal owners of the assets, as in cases where a special-purpose-vehicle company is created with the sole purpose of implementing a PPP contract.

49. Regardless of how PPPs are treated in national budgets, financial statements, or fiscal statistics, effective management of fiscal risks requires transparent reporting practices.

Information on PPPs can be disclosed together with budget documentation on a best effort basis,

⁴ The International Public Sector Accounting Standard on "Service Concession Agreements" (IPSAS32) puts on the government's balance sheet any PPP in which the government controls the service that is provided and controls the asset at the end of the contract. The Government Finance Statistics Manual 2014 and the Government Finance Statistics Guidelines 2011, put PPPs on the government balance sheet if the government bears most of the risks and benefits from most of the rewards, regardless of whether the government is the legal owner of the asset.

being improved over time as better data becomes available (Box 14 includes good reporting practices prescribed by the IMF Fiscal Transparency Handbook). Governments could consider to:

- Publish baseline forecast of the government's payments and receipts under PPPs along with long-term fiscal projections, identifying them explicitly. To strengthen fiscal risk management, budget documents should include information on total project costs and multiyear commitments for all large infrastructure projects, including PPPs. In the United Kingdom and Portugal the Treasury and Ministry of Finance publish forecasted annual PPP payments for up to 2060. Other countries include similar information of PPPs in their fiscal risk statements accompanying the budget documents (e.g. Georgia, Philippines). In some other countries PPP information is included as part of their debt management reports (e.g., Turkey). Transparent disclosing practices demonstrate to financial investors that the government is aware of the long-term costs and the risks from PPPs and is managing them. This reduces uncertainty for investors, potentially lowering the risk premium and thus the cost for the government. As PPP contracts cover the life of the project (and not only the construction phase), disclosure helps present infrastructure projects in a holistic way and identify their full fiscal cost—something not easy in traditional procurement.
- Disclose the stock of sovereign guarantees to PPPs and assess the likelihood of them being called. In addition to forecasting the PPP net cost for government, information on sovereign guarantees provided to PPP projects should be reported. For example, the Chilean government reports and analyses risks of guarantees provided to user-funded PPPs (e.g., minimum revenue guarantees) in its annual report on contingent liabilities. The Colombian government discloses contingent liabilities in PPPs in its annual report on the medium-term fiscal framework.

Box 14. IMF's Fiscal Transparency Evaluation: Good Practice in Reporting on PPPs

Basic practices	Good practices	Advanced practices
The government at least annually publishes its total rights, obligations, and other exposures under public-private partnership contracts.	The government at least annually publishes its total rights, obligations, and other exposures under public-private partnership contracts and the expected annual receipts and payments over the life of the contracts.	The government at least annually publishes its total rights, obligations, and other exposures under public-private partnership contracts and the expected annual receipts and payments over the life of the contracts. A legal limit is also placed on accumulated obligations.

Source: IMF, 2017, *Fiscal Transparency Handbook*.

Box 15. Reporting on PPPs by the Public Sector

There are three frameworks for reporting PPPs transactions in fiscal accounts: government budget, financial statements, and government financial statistics. Ideally, these three frameworks would rely on an integrated financial information system to estimate consistently the fiscal impact of PPPs. Moreover, to achieve consistency among these frameworks PPP-related assets should be equally recognized in all of them. For PPPs to impact the government's accounts, the underlying non-financial asset in a PPP contract should be regarded as a public asset, regardless of the legal arrangements supporting the PPP contract. In practice, most countries treat PPPs differently in their budgets, financial statements, and statistics, significantly reducing fiscal transparency.

Budgeting for PPPs

PPPs are hard to manage in traditional annual budget cycles, given that some PPP related costs may occur in the future, or may be contingent on the occurrence of specific events. Most countries include in their annual budget PPP-related payments, such as ongoing availability payments, subsidies or grants. However, budgeting for long-term commitments in PPPs is more challenging, even when medium-term budget frameworks (MTBF) are in place, given that fiscal commitments in PPPs go beyond the 3 to 4 years covered by the MTBF. Similarly, given that most countries' budgets are done on a cash basis, they do not reflect the level of future government commitments during the construction phase where government payments are not required, reducing the ability of the legislative to control overall fiscal commitments from PPPs. In extreme cases, PPPs funded by users are never budgeted for, given that typically do not require cash appropriations during their whole life cycle. In addition to PPP commitments, budgets should also reflect contingent liabilities arising from PPPs (e.g., guarantees). Typical mechanisms for budgeting for contingent liabilities under PPPs include budgetary contingency lines and contingent liabilities funds.

There are some examples of good practices introduced by countries to overcome the challenges in budgeting for PPPs. In the State of Victoria, Australia, a department considering a PPP must first seek approval for the budget capital spending that would be required as if the project received public funds. If the project is procured as a PPP, required budget cash appropriations are planned accordingly, at a second stage, depending on the project cycle (i.e., construction or operation) and type of project (i.e., government- or user-funded). By doing that, the treatment of PPPs in the budget is similar to traditional procurement, allowing for legislative oversight of PPP long-term commitments. Colombia requires implementing agencies to make a cash transfer to a contingency fund when a PPP project is signed. The cash transfer is set equal to the expected cost of programs including any guarantees provided. This means that the decision to accept a contingent liability has an immediate budget impact. Chile's Ministry of Finance assesses the cost of PPP-related guarantees (e.g., minimum revenue guarantee) provided to PPP operators and creates a budget line for those guarantees.

Accounting for PPPs

Governments publish annual financial statements, which ideally should include PPPs when the underlying assets are regarded as public assets. In 2011, the International Public Sector Accounting Standards Board (IPSASB) introduced IPSAS-32 *"Service Concession Arrangements: The Grantor"* that defines when PPP assets and liabilities should be recognized on the government's balance sheet under accrual standards. Under IPSAS-32 asset recognition criteria, most PPPs are treated as belonging to the government, thus recording both assets and related liabilities on the balance sheet of the government (i.e. "on-balance sheet"). While IPSAS 32 is an accrual standard, it also has implications for accounting of PPPs on a cash basis, given that the same asset should not be classified differently depending on the basis of recording.

There is an increasing number of countries that adjusted their public sector accounting standards to comply with IPSAS-32. Australia and New Zealand have well developed national accounting systems that are closely aligned to IPSAS standards, particularly in the treatment of PPPs.

Box 15. Reporting on PPPs by the Public Sector (continued)

The United Kingdom publishes its financial statements and the Whole of Government Accounts (WGA)—a consolidation of all the audited accounts across the public sector—using the International Financial Reporting Standards (IFRS) that are broadly aligned to IPSAS standards. These rules classify nearly all PFI/PPP assets as “on-balance sheet”, for financial accounting and reporting purposes. Turkey has recently aligned its national accounting standards to IPSAS— particularly IPSAS-32, requirements are being implemented, which would classify a large number of its PPPs “on-balance sheet”.

PPPs in Government Finance Statistics

The IMF’s *Government Finance Statistics Manual* (GFSM 2014), in line with *System of National Accounts* (SNA 2008), sets out the criteria for classifying PPP assets and liabilities in government statistics (i.e., public sector net lending/borrowing, cash balance, and public sector gross and net debt). The asset recognition criteria for classifying a PPP asset as belonging to the government is different from that used by IPSAS-32 (see Box 2 for a detailed discussion of the control vs risks & rewards approach). And while in substance this discrepancy is not large, in practice the results of its implementation by most countries is quite different. Implementation of IPSAS 32 control approach is quite simple and leads to most PPPs assets being classified in the government’s accounts. On the contrary, SNA 2008 only sets the principles (risks & rewards approach) giving countries the flexibility to implement them in practice. In Europe, to address the challenge arising from the need of comparability across member countries, Eurostat uses a rules-based approach to decide whether PPP assets and liabilities are to be included on government balance sheet. Historically, even after several rounds of updates, Eurostat guidelines have led countries to record most PPPs off-balance sheet of the government.

For example, in the United Kingdom, while most PPPs are included in Whole of Government Accounts (WGA), the majority of them is reported as off-balance sheet under the Eurostat guidelines, which determines government debt levels. As noted by the Office of Budget Responsibility (OBR) “*most public and political attention, and the government’s fiscal rules, still concentrate on the National Accounts measures of PSND (Public Sector Net Debt) and PSNB (Public Sector Net Borrowing)*”, which does not fully reflect PPP liabilities.

Other reporting of PPPs transactions

To strengthen fiscal transparency in PPPs, countries have found different ways to disclose information on PPPs, overcoming weaknesses in national budgeting, accounting and statistical frameworks. For example Chile publishes an annual contingent liabilities report, that originally presented information on contingent liabilities from revenue and exchange rate guarantees provided to PPP operators. Since 2016, this report has been expanded in coverage—to include other type of contingent liabilities—and complexity—including better estimates of the probability of these contingencies of materializing. In Portugal the Ministry of Finance, through its PPP unit (UTAP), publishes quarterly data on PPPs, including the time profile of expected future payments for the existing PPP portfolio. The Philippines publish an annual Fiscal Risk Statement that provides a comprehensive view of the country’s exposure to macroeconomic risks and contingent liabilities associated with PPPs—among other sources of fiscal risks—and summarizes the government’s policies to manage and mitigate them. China has established a National PPP Integrated Information Platform (managed by the China PPP Center under the Ministry of Finance) for managing and publishing information on PPP projects nationwide. Each PPP project must be registered in the Platform. Basic information on PPP projects as well as procurement information are disclosed in the Platform and in China’s Government Procurement Center website. Finance departments or departments in charge of relevant industries at local level, implementing agencies, nongovernmental investors, consulting service agencies, financial institutions, experts, the public and other users may visit or inquire PPP-related information via internet.

Sources: State of Victoria, Australia National PPP Guidelines (AU 2017)

<https://infrastructure.gov.au/infrastructure/ngpd/index.aspx>; Colombia’s law on contingent liabilities (CO 1998, Article 6) https://www.mineducacion.gov.co/1759/articles-358723_leyes_03.pdf; IPSAS-32 <https://www.ifac.org/publications->

Box 15. Reporting on PPPs by the Public Sector (concluded)

[resources/ipsas-32-service-concession-arrangements-grantor](#); United Kingdom, Office for Budget Responsibility, Fiscal risks report, July 2017, paragraphs 7.65 to 7.67; Philippines <http://www.dbm.gov.ph/index.php/dbcc-matters/dbcc-publication/fiscal-risk-statement>; Portugal https://www.utap.gov.pt/Publicacoes_utap/Boletim%20Trimestral%20PPP%201T2020_final.pdf; China National PPP Integrated Information Platform <http://www.cpppc.org/en/czb/994709.jhtml>

D. A Clear and Consistent Legal PPP Framework

50. The legal framework influences the government’s ability to safeguard public finances and manage fiscal costs and risks arising from PPPs. A sound framework should set the principles and norms for government to ensure proper selection of PPP projects, to prepare efficient contracts, to achieve competitive procurement, and to manage fiscal costs and risks at all stages of the PPP project cycle, while reassuring to the private sector that contracts will be honored. Governments have implemented a wide range of legal arrangements, from specific purpose laws (e.g., PPP law, concession law) to sectoral regulations (e.g., energy law) and contract standardization. Although there is no one-size-fits-all type of solution, and changes in laws and regulations might need time, governments can take action to ensure that key elements are in place to improve their ability to manage fiscal costs and risks from PPPs:

- *Ensure legislative consistency.* Be sure that all norms regulating PPPs are consistent, and well aligned with the public investment management legislation, public procurement legislation and principles, budgetary framework laws, and general transparency and governance norms (See OECD (2020) recommendations on infrastructure governance). Ultimately, the legal uncertainty to which the private sector is exposed to, results in higher fiscal costs and risks for government. Inconsistencies may also exist between PPP legal frameworks applicable to subnational governments and national laws; in extreme cases, public and private parties can choose to use national or subnational frameworks according to their specific interests, introducing additional uncertainty and economic distortions.
- *Introduce contract standardization.* Although contract standardization might not be a priority when a country launches its first PPPs and is still gaining experience, those countries that are planning to rely heavily on PPPs to provide infrastructure in key sectors would benefit significantly from standardizing several PPP contract clauses. Several countries have moved in this direction (e.g., the United Kingdom many years ago, Colombia more recently) as way to reach efficiency and improve the management of fiscal risks arising from contract clauses. Standard contract provisions can provide guidance to procuring authorities in designing PPP contracts and help to ensure consistency among projects, reduce transaction costs, and increase transparency. Standardization is most relevant for PPP contract clauses dealing with performance monitoring, performance-related penalty schemes, change orders, force majeure, change in law, reporting requirements, dispute resolution mechanisms, refinancing, termination events and hand-back of assets. Recognizing that there is no “one size fits all” approach, countries should try to strike the right balance between standardization and customization to have ‘tailor-made’ provisions dealing with the individual characteristics of specific projects or sectors. Contracting authorities may need to request from the ministry of finance authorization for some deviation from the standard, whenever specific circumstances so advise. Standard

provisions should also be reassessed by the contracting authority from time to time to take into account market evolution and changes in legislation.

- *Incorporate a well-defined rationale for procurement through PPPs in the legal framework, complemented with clear sectoral strategies.* The role of PPPs in the provision of national infrastructure and the reasons for procuring PPPs (namely bring added value through private management of infrastructure), should be clearly stated either in the legal and regulatory framework or in a similar high-level document (e.g. national public investment strategy). This will contribute to develop a shared vision between the government and private investors on the value of infrastructure, and the parameters under which future partnerships can effectively generate commercially viable solutions.

Box 16. Examples of Standardization of PPP Contractual Provisions

Several countries have developed standardized PPP contracts or provisions for different types of infrastructure projects. For instance, South Africa's National Treasury published its Standardized PPP Provisions; South Korea published a Standard Concession Agreement for Build-Transfer-Operate Road (BTO) Projects; United Kingdom published guidance on the Standardization of PFI and PF2 Contracts; and India has model concession contracts for several transport sectors, e.g. the Model Concession Agreement (MCA) for Port Sector PPP projects.

Sources: <https://www.gtac.gov.za/Publications/1280-Standardised%20Public-Private%20Partnership%20Provisions.pdf>; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/207383/infrastructure_standardisation_of_contracts_051212.pdf; https://www.kdi.re.kr/kdi_eng/kdicenter/bto_standard_rfp.pdf; and <http://sagarmala.gov.in/sites/default/files/666788205MCA18052016.pdf>

51. Governments should consider prohibiting the acceptance unsolicited proposals or creating a strict regime for their assessment and procurement. Any private entity, as member of civil society, has the possibility of suggesting new infrastructure projects. Therefore, what is at stake in formally accepting an unsolicited proposal is giving to some private entity the status of “proponent”, somehow involved in defining the project concept or in developing it. That status, even **if not coupled with any favorable regime (such as additional points, or the right to match the winning proposal)**, tends to reduce competition—while the right-to-match often eliminates competition. Many jurisdictions (e.g., in Europe) do not accept unsolicited proposals for PPPs; others have created a rigorous legal framework for them (see World Bank 2018, on South Africa, the state of Virginia in the United States, or the state of Victoria in Australia) and have witnessed a significant reduction in the number of unsolicited proposals (probably the result of less space for opportunistic proposals). Good practices when accepting unsolicited proposals for PPPs (see, again, World Bank 2018) recommend that governments submit them to independent review, take control of project development and contract design, and call for open, competitive tender. Notwithstanding, experience shows poor competition for those projects, a major reason for rejecting them or for creating enough capacity in government to avoid them.

52. In each country, the Ministry of Finance and the Finance Minister, as the guardians of fiscal sustainability, should be provided with a clear legal mandate on PPPs. The fiscal risk oversight functions of the Ministry of Finance should be underpinned by a robust legal framework

providing for clear institutional arrangements and an explicit legal mandate to the Finance Minister to manage fiscal costs and risks stemming from PPPs—contracting authorities must seek the finance minister’s approval (or nihil obstat) for the selection of PPP projects, for the draft contract (and explicitly for any deviations from standard clauses), and for contract award (or renegotiation). The Minister of Finance should also be given the legal authority to require the relevant information from different government entities, agencies and SOEs to identify and analyze the risks. The absence of a formal authority may mean that the Ministry of Finance will have to rely simply on moral suasion over line ministries and other contracting authorities.

References

- Engel, Eduardo, Ronald Fisher & Alexander Galetovic (2020) *When and How to Use Public-Private-Partnerships in Infrastructure: Lessons from the International Experience*, NBER (available at <https://www.nber.org/papers/w26766>).
- Dachs, William (2014) *Developing a Framework for Renegotiation of PPP Contracts*, Ministry of Finance, India (www.pppinindia.gov.in).
- Duffield, Colin, Peter Raisbeck, & Ming Xu (2008) *Report on the performance of PPP projects in Australia when compared with a representative sample of traditionally procured infrastructure projects*, research report, University of Melbourne (https://www.infrastructureaustralia.gov.au/sites/default/files/2019-06/PC_Submission_Attachment_K.pdf).
- Flyvbjerg, Bent (2003) *Megaprojects and risk*, Cambridge University Press.
- G20 *Principles for Quality Infrastructure Investment* (https://www.mof.go.jp/english/international_policy/convention/g20/annex6_1.pdf)
- G20 *Osaka Leaders' Declaration*, 28-29 June 2019 (<https://g20.org/en/g20/Documents/2019-Japan-G20%20Osaka%20Leaders%20Declaration.pdf>)
- Gaspar, Vitor, David Amaglobeli, Mercedes Garcia-Escribano, Delphine Prady & Mauricio Soto (2019) *Fiscal Policy and Development: Human, Social, and Physical Investments for the SDG*, IMF Staff Discussion Note SDN/19/03, January, Washington, DC: International Monetary Fund. (<https://www.imf.org/-/media/Files/Publications/SDN/2019/SDN1903.ashx>)
- Irwin, Timothy, Samah Mazraani, and Sandeep Saxena (2018) *How to Control the Fiscal Costs of Public-Private Partnerships*. Washington DC: International Monetary Fund. (<https://www.imf.org/-/media/Files/Publications/HowToNotes/howtonote1804.ashx>)
- Kim, Jay-Hyung, Jonas Arp Fallov & Simon Groom (2020) *Public Investment Management Reference Guide. International Development in Practice*. Washington, DC: World Bank. (<http://hdl.handle.net/10986/33368>)
- McQuaid, Ronald W. (2007) *The bridge to Skye*, in *Bridging Islands: The Impact of Fixed Links*, Acorn Press.
- OECD, Organisation for Economic Co-operation and Development (2012) *Principles for Public Governance of PPPs*. Paris.
- OECD, Organisation for Economic Co-operation and Development (2020) *Recommendation on the Governance of Infrastructure*, Paris (<http://www.oecd.org/gov/infrastructure-governance/recommendation/>)
- Park, Hyeon (2012) *Government support for PPP projects in Korea* (<https://www.unescap.org/sites/default/files/4b-Govt-support-PPPs-in-ROK.pdf>).
- Park Jinyoung & Mun Jinsu (2014) *KOTI Knowledge Sharing Report #11: Korea's Railway PPP Projects*, Korea Transport Institute. (https://centers.ibs.re.kr/html/living_en/transport/KSP%2011%20Korea%C2%B4s%20Railway%20PPP%20P rojects.pdf).
- Sarmiento, Joaquim Miranda (2016) *Parcerias Público-Privadas*, Lisboa: Fundação Francisco Manuel dos Santos.
- Schwartz, Gerd, Manal Fouad, Torben Steen Hansen, and Genevieve Verdier, editors (2020) *Well Spent: How Strong Infrastructure Governance Can End Waste in Public Investment*. Washington DC: International Monetary Fund. (<https://www.imf.org/en/Publications/Books/Issues/2020/09/03/Well-Spent-How-Strong-Infrastructure-Governance-Can-End-Waste-in-Public-Investment-48603>)

Sovacool, Benjamin K., Alex Gilbert & Daniel Nugent (2014). *"An International Comparative Assessment of Construction Cost Overruns for Electricity Infrastructure"* Energy Research and Social Science 3 (2014) 152-160, Institute for Energy & the Environment, Vermont Law School, USA.

Turkey Undersecretariat of Treasury (2015) *Public Debt Management Report* (ms.hmb.gov.tr/uploads/sites/2/2018/12/Public-Debt-Management-Report-2015.pdf).

United Kingdom, National Audit Office (NAO), *"Report on PFI and PF2"*, January 2018.

United Kingdom, Office for Budget Responsibility (OBR), *Fiscal risks report, July 2017*, paragraphs 7.65 to 7.67.

United Kingdom, National Audit Office (NAO), United Kingdom Cabinet Office, *Investigation into the government's handling of the collapse of Carillion*, June 2018.

U.S. Federal Highway Administration (2016) Revenue risk sharing for highway PPPs (www.fhwa.dot.gov/ipd/p3/toolkit/publications/reports_discussion_papers/revenue_risk_sharing/appendices.aspx).

World Bank (2018) *Policy Guidelines for Managing Unsolicited Proposals in Infrastructure Projects*, in three volumes ([Volume 1: Main Findings & Recommendations](#); [Volume 2: Guidelines for the Development of a Policy for Managing Unsolicited Proposals in Infrastructure Projects](#); [Volume 3: Review of Experiences with Unsolicited Proposals in Infrastructure Projects](#)), Washington DC.