



**UNIVERSITA' DEGLI STUDI DI PADOVA**  
**DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI**  
**"M.FANNO"**

**CORSO DI LAUREA MAGISTRALE IN**  
**BUSINESS ADMINISTRATION**

**TESI DI LAUREA**

**"THE FINANCIAL ACCOUNTING OF PUBLIC PRIVATE**  
**PARTNERSHIPS. ISSUES AND INTERNATIONAL EXPERIENCE"**

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**ANNO ACCADEMICO 2018 – 2019**



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# Contents

<b>Introduction</b>	<b>7</b>
<b>1. Fiscal accounting and reporting for PPPs</b>	<b>11</b>
1.1 Efficiency through risk transfer, the scope of PPPs	12
1.2 Recognizing PPPs in government accounts	15
1.2.1 Value for money and accounting, financial aspects	18
1.3 Relevant accounting standards	22
1.3.1 International Public Sector Accounting Standards	23
1.3.2 IMF's Government Finance Statistics Manual	26
1.3.3 European System of Accounts	27
1.3.4 Some accounting issues	30
1.4 Contingent liabilities	31
1.5 Disclosing PPP commitments	32
<b>2. Countries studies</b>	<b>39</b>
2.1 United Kingdom	41
2.1.1 The UK Guarantee Scheme for Infrastructure Projects	49
2.2 Portugal	50
2.3 Chile	55
2.4 Australia: Victoria	58
<b>3. The Italian experience</b>	<b>61</b>
3.1 PPP projects in Italy	61
3.2 The institutional framework for PPPs in Italy	67
3.3 PPPs in national accounts	68
<b>Final considerations</b>	<b>71</b>
<b>References</b>	<b>77</b>



# Introduction

The recourse to public-private partnerships (PPPs) from governments has increased rapidly in recent years. PPPs involve the government entering into a long term contract with a private partner for the delivering of a good or service. The private partner is responsible for building, operating and maintaining the assets that are necessary for delivering the good or service to either the government or to individuals. PPPs have grown apace both in emerging and in developed countries, creating both opportunities and fiscal challenges. The main advantage of PPPs agreements lies in efficiency gains that derive primarily from the bundling of different contracts with a single private entity. Appropriate risk sharing is an important driver of cost optimization in such contracts. Moreover, the private commercial expertise can prove beneficial to the final returns of the projects.

Despite the increasing importance of PPP transactions, currently there is no universally recognized standard for the treatment of PPP in national accounts and statistics. Some standards have been defined by the International Monetary Fund, the Eurostat and the International Public Sector Accounting Standards Board (IPSASB). However, either their criteria are subject to manipulation or they are not extensively adopted. The weak point of current accounting models in most countries is that they are not adequate because they fail into bringing a transparent picture of the complexity of the risk sharing mechanisms and a clear identification of the rights and responsibilities of the various partners involved in the transaction. Moreover, some contrasts may arise between different standards. In addition, accounting and reporting rules vary widely among countries and several countries don't have any specific standards for PPPs, making it difficult to compare data across different countries.

When accounting rules allow for PPPs to be treated as off balance sheet investments, therefore not affecting the amount of public debt and deficit, they may originate opportunistic behaviors. Indeed, on one hand governments get good PPPs if they provide appropriate risk sharing, that is, the risk is borne by the party best able to handle it. In this way, through PPPs, public authorities can minimize the cost of delivering public services of a set quality level. On the other hand, governments get off balance sheet treatment of PPP transactions, according to the European System of Accounts, if most risks are borne by the private party, regardless of which party is best able to handle it. Admittedly, some off balance sheet PPPs can have good results,

but generally this is not the case. Instead, when designing a PPP project, the emphasis should be on value for money considerations, rather than on the statistical treatment. These issues will be discussed in detail in the first chapter.

PPP experience among countries varies widely. The second chapter will focus on some emblematic cases. United Kingdom has pioneered the use of PPPs in Europe in the '90. In United Kingdom the PFI scheme (a large UK PPP program) was initially introduced essentially in order to increase the private finance investments in large public projects for budgetary constraints motivations and accounting advantages. However, subsequent reforms in the accounting system reduced the debt hiding incentives, since they imposed the on balance sheet treatment of most previously off balance sheet reported projects. From being the pioneer of PPPs, in most recent years United Kingdom decreased its recourse to PFI schemes.

Portugal has engaged extensively in PPPs in the 2000s, when PPPs accounting, reporting and budgeting regulation in the country was still poorly developed. This resulted in high hidden public cost for the government, which exacerbated the situation of the country's public finances in the years of the financial crisis. Subsequent reforms eventually stabilized the situation in the country.

Chile and Victoria are examples of countries with extensive experience in the field of PPPs and developed an effective framework for PPP projects. Chilean case is particularly interesting for its model of managing guarantees and good disclosure of contingent liabilities. However, while accounting rules in Chile are not so developed as the International Financial Reporting Standards, and allow for off balance sheet treatment of PPPs, the State of Victoria in Australia has adopted modern accounting standards that require governments to recognize contract related liabilities on their balance sheet when entering into PPP projects. The State of Victoria has a well developed regulatory framework for PPPs, which is based on the national PPP policy and guidelines and the State of Victoria's specific requirements. PPPs are centrally monitored and Victoria's government have a key role in the governance of the projects.

The third chapter will analyze the position of Italy. Italy has used PPPs extensively in the last years, both for large government's projects and for smaller municipalities' public infrastructures and services. However, despite the large number of PPPs initiated, the country's experience has been fragmented. In particular, PPPs in Italy have been characterized by a low level of collaboration between private and public actors, for many reasons. For example, one of the main causes is represented by a very low level of preparation of local offices and the consequent difficulties of public local actor to manage the partnership. Such issues often led to



problems related to the allocation of risks among the parties involved in the transactions. The accounting and statistical system in the country is based on the European System of Accounts, which may give incentives to shape the transaction to obtain off balance sheet treatment of PPP related assets and liabilities.

The importance of PPPs will likely continue to grow, albeit sometimes for the wrong reasons. Governments often view PPPs as a costless means of releasing resources from infrastructure investments, which can then be redeployed to other programs. The deficiencies of fiscal accounting provide additional incentives to choose PPPs because they typically neither affect the budget deficit nor count as public debt. Such incentives may lead public authorities to promote PPPs even when they don't improve operating efficiencies and harm value for money. In the shorter or longer period, this creates significant fiscal risk.

The cases analyzed show as most of the difficulties encountered with PPPs implementation are linked to the financial crisis and to lack of experience in the public partner. A prior comparative analysis of alternative option (such as public sector comparator) is an important tool to increase the likelihood that the PPP choice is the one that deliver value for money. To deliver such outcome, however, the analysis must be made on sound basis, that is on an objective selection of the public sector comparator, not distorted by other interests or incentives. The same apply, when structuring the transaction, to the allocation of risks between the parties. Such allocation must be based on the principle that risks should be borne by the party best equipped to deal with them. When the allocation of risks is biased by other considerations, such as the accounting and statistical treatment, it is likely that the value for money of the project is at risk. Indeed, a non-optimal allocation of risks between the parties, may lead to incoherent and ineffective high remuneration rates on the private partner's cost of capital. In any case, inappropriate structured PPP contracts will increase the fiscal risk to the government.

Overall, the implementation of successful PPPs requires the presence of a solid and effective institutional and regulatory framework. This may be present in countries with longer experience in the use of PPPs, because of accumulated rules and reforms in the field. Countries that are now entering into PPPs should make sure that they have introduced adequate rules and institutions for their discipline and management.

An accrual accounting system based on IPSAS standards is probably the one that best guarantee an effective management of the fiscal risk that arises from PPP transactions. The use of cash accounting does make governments more susceptible to the temptation to use PPPs irrespective of their real benefits. However, changing the accounting system in a country is a complex

process. Even under cash accounting, governments can keep under control the fiscal risk by routinely publishing reports on present and future PPPs commitments and contingent liabilities. Chilean model for reporting and valuing contingent liabilities is a successful example. Also, publishing signed contracts, as in Australia, is a good practice that promotes transparency and control.

The use of adequate mechanism for the fiscal treatment of PPPs will support preventing the adoption of PPPs for budgetary constraint motivations and redirect the efforts to the area on which PPPs can make a real contribution: enhanced efficiency in the provision of public services.

# Chapter 1

## Fiscal accounting and reporting for PPPs

Public-private partnerships (PPPs) can be defined as long term contractual arrangements between the public and private sectors for the sharing of risks and responsibilities for the construction of infrastructure and the provision of services. The aim of such arrangements should be that of enhancing the efficiency of infrastructure provision. PPP transactions involve contracting a private consortium to bundle the designing, finance, construction, operation and long term maintenance into one contract. Bundling differentiates PPPs from traditional public provisions, while the term limit differentiates PPPs from privatizations.

During the life of the contract, the firm receives a stream of revenues as compensation for the initial investment, the operational costs and the maintenance expenses. Depending on the contract, the stream of revenues may consist of user fees, payments from the procuring authority or a combination of both. At the end of the contract, the assets revert to the government.<sup>1</sup>

The nature of activities in which PPPs are involved varies greatly. Generally, the private party will be responsible for building and operating assets that are usually under broader competence of the general government or public corporations. These commonly include roads, bridges, water supply and sewage treatment works, hospitals, prison facilities, electricity generation and distribution facilities and pipelines.

The long term contractual nature of the business relationship in PPPs leads to difficult financial issues, related to taxation, cash flow budgeting and disclosure rules. The role of accounting in public private partnerships is of particular importance: it should address the complexity of the risk sharing mechanisms and the distribution of rights and responsibilities between the parties.

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<sup>1</sup> This is the definition of PPP that will be used in this work. However, there is no universal recognized approach to PPP and several terms may fall in this category depending of the definition used (leases, concessions, franchises...). Eurostat (2016), for example, distinguishes PPPs from user funded projects, and call the latter concessions.

## 1.1 Efficiency through risk transfer, the rationale of PPPs

The essence of the arrangements is in terms of risk transfer. PPPs are, in essence, complex risk allocation and risk sharing mechanisms (Grimsey and Lewis, 2002). The private party is responsible for designing and managing the facility for a long term period, sometimes close to the entire life of the asset. This characteristic allows for efficiency gains, that should represent the main theoretical rationale for the use of PPPs. The efficiency gains would increase resources – not because private financing substitutes for public financing, but because well-designed PPPs provide better quality of service at lower cost.

Enhanced efficiency of infrastructure provision from PPPs derive from the bundling of construction and maintenance. With traditional public provisions, a construction firm minimizes building costs subject to design characteristics. In a PPP, by contrast, the private firm minimizes lifetime costs of the project, which include building, operating and maintenance costs, even if this leads to higher initial construction costs. Indeed, the PPP should provide incentives for investments in innovations during the building stage with the purpose of reducing costs and/or enhancing service quality during the operational stage (Iossa and Martimort, 2015; Martimort and Pouyet, 2008; Hart, 2003). PPPs are preferable to traditional provisions especially when the quality of service is contractible, since in this case it will be easier to design proper incentives. For example a PPP structure would be adequate for most transportation infrastructures – highways, port infrastructure, tunnels, bridges, airports.

To the extent that investments during the building phase can lower maintenance and operating costs, this should lead to efficiency gains under PPPs.<sup>2</sup> More generally, one of the main points of a PPP is to shift endogenous risk to the operator to prevent moral hazard that derives from contract incompleteness and asymmetric information and to strengthen incentives to cut costs and provide adequate service quality (Engel et al., 2014).

Typically, PPPs financing is run through a so-called special purpose vehicle (SPV) – a stand-alone firm created for the sole purpose of developing the project. This structure allows to isolate the investments and the returns related to the project. Hence, the SPV allows to borrow against the project's cash flow (project financing).

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<sup>2</sup> The potential advantage is even greater under privatization because in this case the firm owns the asset indefinitely. However, this option is often ruled out because having the infrastructure returned periodically to the government facilitates long term planning.

Many types of arrangements can be developed following the main features of a PPP. These schemes are referred to by different names depending on the type of contracts that are in place. Examples are private finance initiatives (PFIs); design, build, operate, and transfer schemes (DBOT); build, own, and transfer schemes (BOTs); or build, own, operate, and transfer schemes (BOOTs). In any case, when arranging the most appropriate contractual structure, the objective should remain that of achieving the most effective and efficient 'value for money'.

Value for money is concerned with identifying the most cost-effective way of providing a high quality service, suggesting a more efficient use of government resources. PPPs can deliver a better value for money with respect to traditional provisions because the private sector adopts a whole life prospective of the investment and assumes risks that can better manage and mitigate. Achievement of value for money relies on obtaining an optimal transfer of risk, because the entity in the best position to manage a particular risk should be able to do so at the lowest price (Grimsey and Lewis, 2002). This implies that controllable risks should be borne, at least in part, by the party best equipped to control them, as this create incentives to be efficient. At the same time, exogenous risk should be shifted to the party best endowed to bear or diversify it. Risk allocation, therefore, should take into account each party's ability to influence, anticipate and absorb risk, and transaction costs (Irwin, 2007). According to Engel et al. (2014), construction and operation and maintenance are risks under the control of the firm and should therefore, except limited exception, be borne by the operator, in order to provide cost-reducing incentives. Key contractual elements that contribute in transferring risks are appropriate bundling, specific service obligations and standards, control clauses, pricing and payment mechanism and expressed contractual provisions. In practice, however, contracts clauses are often ambiguous, and governments frequently share these risks while the contract is in force, also because of contract renegotiations. Nonspecific government-induced risks should also be borne by the operator. These risks are common to all the firms, and the private partner would otherwise receive a discriminatory treatment. Risks under control of the government are policy risk, for policies that directly affect the project, and residual value risk, when residual value depends on government planning decisions. The most contentious issue in risk allocation is about exogenous demand risk. According to the authors, this risk shouldn't be borne by the private party. In fact, in this case the firm will be assigned a risk that it cannot diversify, thus a risk adverse firm will require a higher risk premium to accept it. The best solution, according to the authors, is to define a contract in which the risk of the demand is eliminated through appropriate compensation scheme.

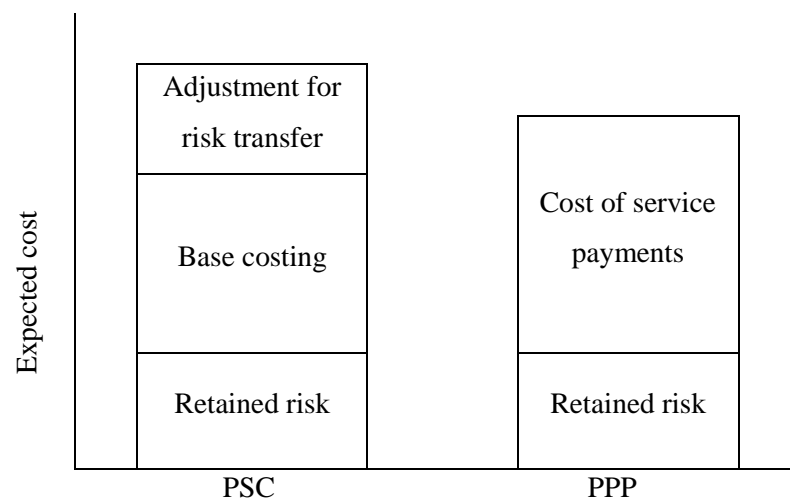
Weak contract design and ineffective enforcement increase the likelihood that governments will fail to really achieve risk transfer to the private sector. Buso and Greco (2016) observe as constrained governments may find difficulties in applying penalties and enforcing contracts, weakening risk transfer provisions. In this case contracts that make the total transfer depend on both the quality of the infrastructure and the operational cost may ease constraints. The authors demonstrate that introducing public and private financial constraints together increases the probability that PPPs will be more socially desirable than traditional procurement.

Figure 1 illustrates how the quantified amount of risk assessed as transferred to the private sector operator will be decisive in terms of which contract design is offering the best value for money.

The Public Sector Comparator (PSC) indicates what the project’s costs would look like if delivered through traditional procurement, and is frequently used in quantitative assessment of value for money. One of the main differences between traditional procurement and PPP is that the PPP transfers more risks to the private party. The return on investment expected by the private party will consider these transferred risks. This means that to make a fair comparison, the PSC should also consider the cost of these risks.

The retained risk within the public authority is the same in both options. While the base costing of the PSC is considerably less than the cost of service payments, the PPP arrangement should be preferred when the adjustment for risk transfer make the overall cost of the public provision higher. In this case, the private party will charge a premium for bearing the risks, but it will be lower than the cost that the public authority would have to sustain if it was to bear the risk itself.

Figure 1 – Bid evaluation and cost component



Source: Heald and Georgiou (2010).

The nature of the financial relationships underlying PPPs shapes the concept of value for money and is also central to the accounting issue. The most important aspect to be considered is related to the stream of cash flows of PPP projects. PPPs have a fundamentally different payment structure with respect to traditional provisions of infrastructure, in which the government pays for the investment by borrowing or raising taxes. This feature determines a different cash flows impact from the point of view of the grantor (the government), with little or no upfront capital costs but with operating costs that include amortized capital costs. This characteristic will be further analyzed in the context of the fiscal implications of PPPs.

Another important financial aspect of PPPs is related to the fact that generally to award a PPP contract it is necessary to identify and negotiate all aspects associated to the project implementation, financing, operation and maintenance. Indeed, traditionally procured projects do not usually include the budgetary resources that are necessary for operating and maintaining the project infrastructure, as these aspects are contracted separately. Instead, as PPP contracts include provisions for operations and maintenance, they allow the necessary funds to be committed from the start of the construction period, thus ensuring that they are not subject to the discretion of governments. The process may also involve identifying indicators and performance measurement systems that are usually not part of traditional project procurement. While this should deliver the advantage of more accurate forecast, it may also determine longer time for the awarding procedure.

## **1.2 Recognizing PPPs in government accounts**

Governments need to account for and report on their financial commitments, including those under PPP contracts. Appropriate reporting is important to properly assess the country fiscal position and to take reasoned decisions on new government's investment commitments. Making financial reports publicly available enables all interested parties – such as lenders, rating agencies, and citizens – to reach an informed opinion on the government's public financial management performance.

Governments need to decide whether and how PPP outstanding fiscal commitments should be recognized – that is, formally recorded in financial statements as creating public assets, liabilities, revenues or expenses. This may have important implications on the assessment of the overall financial sustainability of a country, because limits or targets are often set on the government's liabilities and expenditures. Whether or not PPP commitments are recognized as expenses or liabilities can therefore influence a government's decision to pursue PPPs, or how

to structure them, in a way that is not driven by the fundamental objective of achieving value for money. This is closely related to the way that governments measure their spending and their debt.

As Eurostat (2016) pointed out, the key accounting issue is the classification of the assets involved in the PPP contract. If they are classified as government assets, they immediately influence government finances, both for the deficit and for the government debt. The initial capital expenditure relating to the assets will be recorded as government fixed capital formation, with a negative impact on government deficit/surplus. As a counterpart of this government expenditure, government debt will increase in the form of an ‘imputed loan’ from the partner, which is part of the ‘Maastricht debt’ concept. In case of government funded PPP, the regular payments made by government to the partner will have an impact on government deficit/surplus only for the part relating to purchases of services and ‘imputed interest’, while the repayment of the principal will amortize the debt. At the end of the service provision by the client, the debt will be equal to zero. The contract cost will be completely repaid while the asset remains in the government balance sheet at its residual value. This is similar to what happens when the government borrows in traditional ways to fund the payments it makes in the case of traditional public provision. By contrast, if the PPP assets are classified as belonging to the operator, the impact on the government deficit and debt is spread over the duration of the contract, often as many as 30 years. Hence, if PPP are classified as private, governments can keep them off their balance sheets, thereby avoiding spending and debt caps.

As highlighted by the International Monetary Fund (2014a), the decision about whether to record PPP related assets and liabilities in the government’s or the private corporation’s balance sheet is not straightforward. The private corporation is responsible for acquiring or constructing the asset, although the acquisition or construction is often supported by the backing of the government. The contract often allows government to specify the design, quality, capacity use, and maintenance of the asset in accordance with government standards. Typically, the asset has service life much longer than the contract period so that, just for this reason, the government will have control of the asset, bear the risks, and receive the rewards for a major portion of the asset’s life. Thus, it is frequently not obvious whether the private party or the government controls the asset or which party bears the majority of the risks and rewards related to the PPP asset and should therefore account for it. The decision may vary considerably depending on the accounting standard used.

Since most current accounting and reporting standards generally allow PPP assets to be reported off balance sheet, PPP contracts can potentially generate a bias toward the use of PPPs versus



traditional public procurement. It can arise a misconception that since PPPs allow new investments to be undertaken without any immediate increase in reported government spending or debt, they allow to generate extra fiscal space, beyond that obtained just by the induced efficiency gains. Eurostat talks in this regard of an ‘affordability illusion’ (EPEC, 2016). This can prove harmful to public finances, especially if done in a non transparent manner, considering for example situations in which the government still guarantees payments to the PPP company over the life of the contract, with hidden and potential fiscal implications similar to those created by traditional borrowing. In this case PPPs can lead governments to assume financial commitments that later prove unaffordable. The issue tends to be exacerbated in the case of opportunistic behaviors by the public management, that is when governments choose to pursue PPPs based on debt hiding motivations. Despite the high importance of the efficiency rationale, in practice the need to finance infrastructure under budgetary constraints has also been a main driver of PPPs, with some governments motivated to consider PPPs because of a need to keep down or reduce debt, pushing future obligations off the balance sheet and beyond legislative control. In the United Kingdom, a 2011 report by the House of Commons mentions the classification of debt as one of the main drivers for the adoption of PPPs. The same report states that PPPs has succeeded as “an exercise to get investment off the public balance sheet so that the debt numbers look better than they otherwise would have done.” The document concludes that governments would not have used PPPs as frequently as they did without being motivated by debt-hiding (House of Commons, 2011).

Different specific reasons other than value for money and related to the accounting rules might be identified. First, public authorities may find PPPs attractive because of their smaller impact on the budget, allowing investment even if the authorities lack sufficient capital budget. Second, they may allow to achieve government’s target, since in the short term PPPs reduce the level of public sector debt. Third, European countries may pursue PPPs to achieve compliance with the Maastricht Treaty through off-balance sheet accounting. Fourth, a mayor may be interested in PPPs to improve the public account in order to obtain voters’ support.

Debt hiding motivations are not, however, a valid economic justification for PPPs. The case for PPPs, indeed, should rest on something else, notably on efficiency gains. Otherwise PPP accounting can lead to distorted decision-making on public investment if the underlying criterion for a project acceptance is balance sheet treatment and not an assessment of best value for money.

### **1.2.1 Value for money and accounting, financial aspects**

An excessive focus on off government balance sheet recording can be at the expense of sound project preparation and value for money, as it may lead to a non optimal allocation of risks, pushing public authorities to use PPPs where not appropriate.

The fundamental objective of PPPs should be to achieve an optimal allocation of risk in order to deliver value for money, and not simply to transfer as much risk as possible to the private party in order to obtain an off balance sheet status. Therefore, some conflicts may arise between accounting treatment and achieving value for money. Indeed, the uncertain boundaries for off balance sheet treatment give rise to a danger of ‘financial engineering’ a structure for purely public sector balance sheet reasons. This could result in governments accepting bids from private partners prepared to accept more risk, irrespective of the cost to government of having them to do so, which would defeat the objective of using PPPs to achieve value for money, since the cost of transferring risks and responsibilities to a private party may be high. Similarly, projects that offer good value for money, even though the nature of the projects means that the government has to bear the balance of risks, may be of little interest to the government, given that they have to be recorded on balance sheet (Hemming, 2008; Yescombe, 2007).

As highlighted by Heald (2003), genuine reduction in the total amount of risk, or in the cost of bearing that risk, are clearly a potential economic benefit from the PPP, but in order to deliver value for money there need to be clear evidence that risks have been reduced (because they are now handled by economic agents better equipped to deal with them), not just parked out of sight.

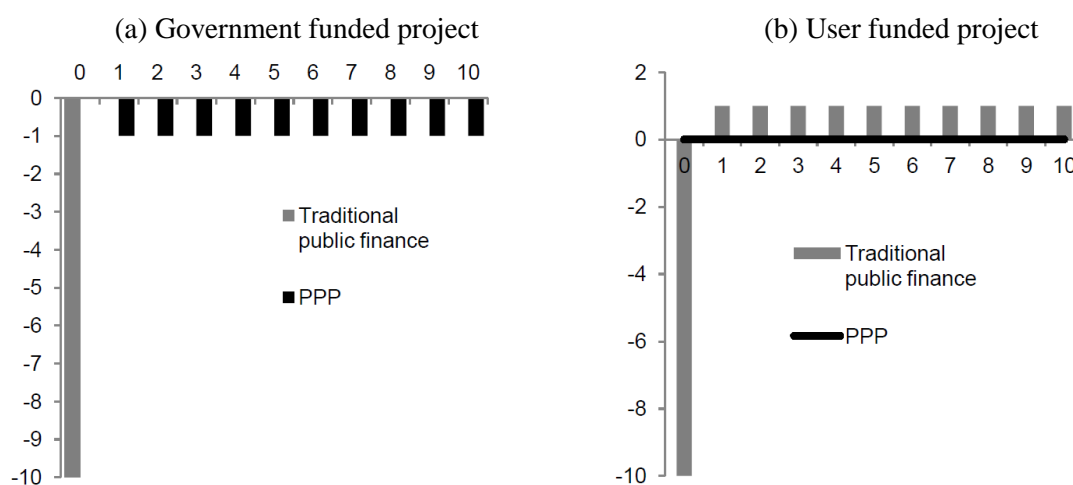
Some authors argue that on balance sheet projects almost by definition cannot have achieved sufficient risk transfer to deliver value for money (Grimsey and Lewis, 2002; Yescombe, 2007). According to the authors, these types of transactions would be considered as unlikely to produce value for money since they would involve little risk transfer greater than would be obtained by the government borrowing, and on less favorable terms. However, Heald (2003) calls the attention to the potential disconnection between the value for money analysis and the accounting treatment analysis. This misalignment is mainly due to the fact that the value for money analysis should be concerned with total risk, not just with the sharing of single risks, which dominates the accounting treatment decision. With the result that, under some accounting rules, a project that transfers to the private party construction risk and availability risk (whatever their amount) could achieve off balance treatment, even when the government still bear

considerable high demand risk. Note that in this case, the issue is not an inappropriate transfer of risk ('too much'), but rather an inappropriate quantification of risk transfer.

The particular cash flow structure of PPPs allows for the payments for the infrastructure asset to be deferred in case of government funded PPPs, while neither earnings nor costs may be recorded in case of user paid PPPs. This fact often leads to belief that PPPs are costless for government. However, in reality, PPPs change the timing of government revenues and disbursements and the composition of financing, but do not alter the present value of the discounted budget. This can be made clearer analyzing [Figure 2](#), which presents two stylized projects, one government funded and one user funded, in which possible efficiency gains (or losses) are ignored and costs of operations and maintenance are assumed to be null.

- In a government funded project (panel (a)), the government can agree to make payments only when the service is provided and to the extent that specific quality and construction standards are met. However, the private party will only enter into the contract if it has the certainty that the government will ultimately pay enough to cover its expected costs. The government can therefore only defer its payments, and not reduce them.
- In a user funded project (panel (b)) in which user fees are assumed to exactly cover the project costs, the government won't make any payments. However, it neither receives any revenues. In the case of public provision instead, it would have collected user fees that would have exactly covered its initial costs. Therefore, the net present value of its cash flows from the project is zero in any scenario.

Figure 2 – Stylized government cash flows for ten years with a PPP and traditional public finance



Source: Funke et al. (2013).

With a PPP the public authority saves on the initial investment disbursement, but then it either gives up on future revenue (in case of user fees funded PPP) or on future tax revenue (in case of government funded PPP). In either case, the use of PPPs does not change the net present value of the government's cash flows with respect to traditional public provision. In the absence of efficiency gains and financing costs, PPPs and public provisions are equivalent for government in terms of affordability and have similar long term effect on public finances. Therefore, the fiscal affordability of a project is independent from whether the provision of the infrastructure assets is structured as a PPP or as a traditional public provision, and PPPs never relax public finance constraints.

Engel et al. (2013) observe that by allowing governments to shift investment payments to the future, PPPs reduce the costs of collecting public funds only in the case of current liquidity constraints (in this case the distortion caused by reduced governmental spending capacity are expected to be higher at the present time than in the future). This may be the case of a law that temporarily prevents a regional or local government from issuing debt, so that it must pay upfront for any publicly provided infrastructure project. In this particular circumstance, building it as a PPP will release resources (Engel et al., 2014).

However, excluding such limited situations of current liquidity constraints, in general it is correct to state that if a project is unsustainable under traditional public provision, it is likely to be so also under PPP, unless the presence of large operating and financial costs savings. In particular, while the public sector always funds the public infrastructure, the private sector can finance it. In this sense, while funding implies the actual payment for the infrastructure assets and associated services, financing refers to obtaining the necessary capital to face the upfront payment required to design and built the infrastructure asset. This is also why there is need of specific budgetary treatment for PPPs to account for the real fiscal implications of PPPs in the decision making phase.<sup>3 4</sup> As a general rule, funding sources should be established first, and subsequently the financing tools can be discussed, typically deciding between traditional public procurement and PPPs.

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<sup>3</sup> For example, governments could prioritize projects according to their highest economic rate of return and separate the decision of whether to invest from how to finance and procure (some good practices for budgeting and disclosing are explained in paragraph 1.5). A realistic social cost-benefit analysis of the project is always necessary.

<sup>4</sup> It is recognized that PPPs can in some limited circumstances help increase the funding available for infrastructure, independently from the current liquidity constraints of governments. This is done especially when the private operator can better implement user fees because of commercial expertise, thus increasing revenue, or when the operator can create new revenue streams from greater asset utilization.

Still, some accounting rules – in particular under pure cash accounting and reporting – and inadequate measures of fiscal deficit often allow for PPP commitments not to appear in government accounts for many years, thus creating the illusion that they generate additional fiscal space, inducing governments to prefer PPP over public provisions even when not appropriate.

The point is made clear by Engel et al. (2014), who state that in terms of risk profile for the government budget, PPPs are closer to public provision. The authors claim that, in essence, they remain public projects and should be treated as such in the government balance sheet. According to this argument, PPP would just substitute debt with the concessionaire for standard public debt. In this case, on the award of such contract, the present value of the PPP would be counted as a public capital expenditure and public debt would be increased by the same amount. Then, over the life of the concession, debt would be run down in the books. This treatment is somehow in contrast with the current Eurostat rules (Eurostat standards will be better detailed in paragraph 1.3.3).

Another important point for the accounting treatment is the institutional unit relevant for the reporting. In the case of PPPs, only if the special purpose entity is controlled by the government, transactions related to the PPPs are automatically consolidated within the government accounts. Hence, many countries push PPPs off the balance sheet by classifying the SPVs as private sector entities. In this case, even if the SPV follows adequate international standards, their transactions have no impact on government accounts. Irwin (2012) provides some examples of how this ploy has been applied in PPP and other arrangements in Greece, United Kingdom, United States and other countries.

While the critical accounting issue from the public authority's point of view is one of whether or not the PPP contract is off balance sheet, the significance of the accounting test is whether the arrangement represents good value for money. In practice, often governments will try to structure the arrangements 'around' the applicable public accounting rules, in order to achieve an off balance sheet status, rather than pursuing sound value for money.

Hemming (2008) notes as taking into account the present value of net future payments by the government under PPP contracts is likely to have an impact on policy advice only where debt sustainability is already a concern. Where this is the case, borrowing to finance traditional public investments would also be a concern, and it is more likely that governments will be tempted to use PPPs to circumvent fiscal targets.

The most important accounting and reporting standards for PPP are illustrated in the following section. As the problem of debt hiding motivation to PPPs becomes more well known, international norms and standards evolve consequently. Subsequently, PPP assets and liabilities are increasingly recognized in the government's accounts and financial statistics, and the treatment of PPP is getting similar to that of public borrowing for infrastructure projects. While many issues are still to be addressed, World Bank (2017) notes that, if this trend is confirmed, effectiveness and efficiency will then be the sole reasons for utilizing PPPs.

Maskin and Tirole (2008) provide a theoretical framework of how PPPs are used to elude fiscal rules. On the empirical side, evidence has been found for the impact of fiscal restrictions on the choice of PPPs. Russo and Zampino (2010) observe a strong positive relationship between local public debt and the number of PPP projects in Italy. Deficit, instead, does not seem to be related with the PPP choice. Similarly, Albalade et al. (2015) find a positive impact of debt on the level of private involvement in public projects in the US. Instead, Buso et al. (2017), in testing the empirical evidence, find that the adoption of PPPs in a situation of financial constraints is not explained by debt hiding motivations, even if strict budget constraints are associated with a more frequent tendency to invest through a PPP. However, opportunistic behaviors may still remain, given that the particular cash flows structure of PPPs allows for the deferring of public obligations.

### **1.3 Relevant accounting standards**

Government financial accounting and reporting can be of different nature. Some internationally relevant recognized standards and guidelines apply in each case. In general, these standards set rules or guidelines for whether and how different kinds of liabilities and expenditures should be recognized and therefore formally recorded in the financial statements and statistics, or disclosed and reported in notes or narratives.

Most governments capture and report financial information in three related frameworks:

- Government financial statistics: summary statistics on the state of a government's finances, which are intended to be internationally comparable. These statistics may follow regional or international standards, such as those set by Eurostat for European Union countries, or the United Nation System of National Accounts, or the IMF's Government Finance Statistics Manual (GFSM). These statistics are used for the national accounts, on which basis the main public expenditure aggregates are expressed. For country belonging to the

European Union, Eurostat standards are the basis for measuring compliance with the debt and deficit rules.

- Government financial statements: most governments also publish audited financial statements. There are internationally recognized standards on what should be in those financial statements, although in practice few governments meet those standards. The International Public Sector Accounting Standards (IPSAS) issued by the IFAC are based on the International Financial Reporting Standards (IFRS) issued by the IASB with suitable modifications relevant for public sector accounting. Some governments adopt local accounting standards that are a simplified version of the IPSAS standards.
- Budget documentation: most governments prepare reports as part of budget preparation within the broader financial plan of the government. These are not subject to any international standards, although there are international guidance materials that promote transparency.<sup>5</sup>

A few standards specifically address when and how direct liabilities and assets of PPP projects should be recognized by the contracting governments.

The financial standards vary in their treatment of PPP fiscal commitments. In general, Eurostat, a statistical office, uses the risks and rewards criterion for classification purposes, while the international standard for public accounts, IPSAS, uses the control criterion.

### **1.3.1 International Public Sector Accounting Standards**

Introduced in 2011, IPSAS 32 (IFAC, 2011) defines when PPP assets and liabilities should be recognized, assuming a government is following IPSAS accrual accounting standards (i.e. it records revenues and expenses when they are incurred, regardless of when cash is exchanged).

IPSAS 32 applies to both government funded and user funded PPP contracts that involve the operator providing public services on behalf of the grantor.<sup>6</sup>

The approach taken by IPSAS 32 is based on control. Under the standard, PPP assets and liabilities appear on the government's balance sheet, provided that:

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<sup>5</sup> For example, IMF (2014), *Update on the Fiscal Transparency Initiative* and OECD (2015), *Recommendation of the Council on Budgetary Governance*.

<sup>6</sup> Arrangements outside the scope of the standard are those that do not involve the delivery of public services and those where the asset is not controlled by the grantor (e.g., outsourcing, service contracts, or privatization).

- the government controls or regulates the services the operator must provide with the PPP asset, to whom, and at what price; and
- the government controls any significant residual interest in the asset at the end of the contract. This control is usually reflected through the grantor's right to take over the infrastructure at the end of the contract.

Under these conditions, most PPPs would appear on the government's balance sheet. In this case, both the deficit and debt would be affected during the construction of a PPP asset, as in the case of a publicly financed project.

Under a PPP that meets IPSAS 32 requirements, the operator has access to the infrastructure in order to supply the public service on behalf of the public authority but does not have control over the infrastructure. If the public authority has control, as defined by meeting both conditions, the type of asset to be recorded by the operator depends on the allocation of risks and rewards. There are two types of treatments:

- Financial liability model, when the grantor makes payments to the operator in exchange for the grantor's control over the PPP asset. The consideration is represented by a predetermined amount of cash, paid either directly by the grantor or indirectly through the guarantees given by the grantor on the amount of cash receipts from public service users (i.e. via a contractually guaranteed internal rate of return). The private party accounts a receivable (financial asset), according to IFRIC 12. This accounting scheme would apply in particular to BOT (Build, Operate and Transfer) contracts made by local authorities, relating, for example, to public services such as wastewater treatment and household waste incineration, but also in the cases of hospitals and prisons, in which payment is solely by the public authority.
- Grant of a right to the operator model, when the operator earns revenue from third party users of the PPP asset (or from another revenue-generating asset). In this case, the private party obtains the PPP asset in exchange for a non-monetary asset, typically the right to bill the users of the public service. The operator accounts for this right as an intangible asset, according to IFRIC 12. This accounting scheme would apply for example to toll bridges or roads which do not receive public subsidy.

It is also contemplated a mix of the two, when the payment by the government remunerates only partially the operator's performance, for example in the case of a leisure complex funded in part by the local authority and in part by user charges.



In all the cases, the grantor shall initially measure the PPP asset at fair value. Fair value determination may not be straight forward. Where there is an open, active and orderly market for the type of asset, it will be possible to determine the fair value of the asset based on market transactions for similar assets. Where there is no such market for the type of asset, the estimation of the fair value will need to be made on a different ground. The most appropriate basis, in this case, is likely to be the replacement cost. For a new asset this will be the cost of purchasing or constructing an equivalent asset.

Where the grantor recognizes a PPP asset, it shall also recognize a related liability. The latter is initially measured at the same amount as the service concession asset, adjusted for any other consideration transferred between the parties. Under the grant of a right to the operator model, the liability represents the unearned portion of the revenue arising from the exchange of assets between the government and the private party. In this case, the standard requires revenue to be recognized and liabilities to be reduced, in accordance to the economic substance of the underlying arrangements (typically on a straight-line basis, where operator's access to the asset remains constant over the life of the contract).<sup>7</sup> Revenue that will be collected in the future must be appropriately discounted.

In case of government funded PPP, the standard requires, where possible, to separate out the payment for the asset (property element) and the service element, and to recognize service expenditure as it falls due. The government is also required to identify separately the interest charge included. The total unitary payment is therefore divided into repayment of the capital, interest expense, and the remainder deemed to relate to the service charge and expensed annually (only the service charge and interest expense will have an impact on government deficit, while the repayment of the principal will amortize the debt).

In both cases, the government depreciates the assets during the duration of the contract.

Moreover, IPSAS also requires to independently take into consideration potential contingent liabilities arising from PPPs. IPSAS 19 is the relevant standard for contingent liabilities (see section 1.4).

The rationale underlying IPSAS 32 is that this approach would require both parties of the arrangements to apply the same principles in determining which party should recognize the asset used in the PPP agreement. In this sense, IPSAS 32 is intended to be the 'mirror image' of Interpretation 12 of the International Financial Reporting Interpretation Committee (IFRIC

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<sup>7</sup> The effect of revenue recognition on the fiscal aggregates is therefore a decrease in deficit and a decrease in debt.

12), which set out the accounting requirements for the private sector operator in a PPP contract. The objective of the standard is, in this context, to minimize the possibility for an asset to be accounted for by both of the parties, or by neither party (IFAC, 2011).

Overall, IPSAS 32 provides a framework for accounting for and reporting PPP arrangements in a government's financial statements that reduces significantly the bias in favor of PPPs. However, since the adoption of IPSAS by government is voluntary, it is far from extended worldwide.

In particular, while the treatment of government funded PPPs is very similar to the treatment of financial leases in international standards and relatively uncontroversial, the treatment of user funded PPPs is more controversial. For example, Funke et al. (2013) noted as France has adopted in 2011 criteria similar to IPSAS 32 for PPPs accounting, but requires the recognition of a liability only in the case of government funded PPPs.

### **1.3.2 IMF's Government Finance Statistics Manual**

The IMF's Government Finance Statistics Manual (IMF, 2014a) was first published in 2001 and then regularly updated. The GFSM sets out criteria for classifying PPP assets and associated liabilities for statistical reporting purposes. Under these criteria, PPP assets and liabilities are accounted for in the government's balance sheet if the government bears most of the project's risks and rewards.

The factor that has to be considered in assessing who bears most of the project's risk and rewards – who has the economic ownership of the PPP related asset – are closely related to the conditions prescribed by IPSAS 32. The risks and rewards assessment takes into consideration, for example, the degree to which the government controls the risks associated with acquiring the asset, such as design, quality, size and maintenance of the asset, and bears construction risk; as well as the allocation of risks associated with operating the asset, such as supply risk, demand risk, residual value and obsolescence risk, and availability risk.<sup>8</sup>

This macroeconomic statistics approach is broadly consistent with the consideration listed by the International Public Sector Accounting Standards Board for IPSAS 32. IPSAS 32 considerations of control of the asset include aspects of risks and rewards and should normally

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<sup>8</sup> Supply risk covers the degree to which the government is able to control the services produced, the units to which the services are provided, and the prices of the services produced. Other risks mentioned are described in the next paragraph.

lead, in practice, to the same decision as to whether a PPP contract creates assets and liabilities for the government. While the two approaches are different in nature, their implementation should typically lead to a similar impact on the main fiscal aggregates (Funke et al., 2013; IMF, 2014a).

### 1.3.3 European System of Accounts

Eurostat's rules European System of Accounts (referred to as ESA 2010) are applied in all European Union countries and are defined in the European Manual on Government Deficit and Debt (Eurostat, 2016). ESA 2010 was published in May 2013 and is enforceable from September 2014, replacing the previous ESA 95.<sup>9</sup> It should be pointed out that the Manual adopts a narrower definition of PPP, excluding those projects in which the main sources of revenue are user fees (as in a toll road). These are called *concessions*, and are considered private during the life of the contract. Instead, the term PPP is only used for contracts such that the majority of the partner's revenue comes from government payments, irrespective of whether the demand originates directly from government itself or from third party users (as seen for health and education services, or roads franchised under availability payments or shadow tolls). In this last case, the classification of the assets involved in the contract is based on the analysis of risks borne by the contractual parties (the analysis of who has the economic ownership). Heald (2010) points the attention to the fact that the national accounts are a fully articulated set of accounts, in which it is an error to have an asset either on the balance sheet of both client and operator or – much more likely because of the incentives facing decision-makers – on neither. Rather, the assets should be recorded in the balance sheet of just one of the parties involved (the economic owner), and for their total value. As highlighted by de Rougemont (2008), for PPPs, this means that the standard must reach an accounting decision that fits the points of view of both the grantor and the operator. In this sense, ESA 2010 does not benefit from the flexibility typical of other accounting standards when it comes to practice, where International Financial Reporting Standards (IFRS) would not necessarily be consistent with International Public Sector Accounting Standards (IPSAS).

Eurostat requires European governments to recognize PPP liabilities in debt statistics where the government retains construction risk, or if the private partner bears only the construction risk

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<sup>9</sup> The treatment of public private partnership in ESA 2010 is not subject to any substantial changes with respect to ESA 95.

and no other risks. In other words, PPP commitments will be treated as nongovernmental, and thus recorded off balance sheet, when the operator bears construction risk and either one between demand risk and availability risk. It is also required that the risks are not incurred by government through other means, such as, for example, government financing, government guarantees and early redemption clauses.

The first category, construction risk, covers events like late delivery, not respect of specified standards, additional costs, technical deficiency, and external negative effects. Government's obligation to start making regular payments to a partner without taking into account the effective condition of the assets, or to cover systematically any additional cost, would be evidence that government bears the majority of the construction risks.

The second category, availability risk, is linked to the performance of the partner, and concerns situations where the private party is not in a position to deliver the volume and/or quality that was contractually agreed to meet safety or public certification standards relating to the provision of services to final users, as specified in the contract. Government will be assumed not to bear such risk if it is entitled to reduce significantly (as a kind of penalty) its periodic payments, like any 'normal customer' could require in a commercial contract. Government's payments must depend on the effective degree of availability supplied by the partner during a given period of time, and should be linked to performance indicators mentioned in the contract. Application of penalties where the partner is defaulting on its service obligations should be automatic and should also have a significant effect on the partner's revenue/profit and must not be purely symbolic.

The third category, demand risk, covers variability of demand (the effective use of the asset by end users) irrespective of the behavior (management) of the private partner. This risk should not result from a lack in availability or quality of the services provided. Instead it should result from other factors, such as the business cycle, new market trends, direct competition or technological obsolescence. In other words, the bearing of such economic risks would be a normal feature of the partner's activity. Government will be assumed to bear the risk where it ensures a given level of payment to the partner independently of the effective level of demand expressed by the final user, making irrelevant the fluctuations in level of demand on the partner's profitability.

Since normally availability risk is lower than demand risk, the condition reduces to the transfer of construction risk and availability risk. As PPPs generally transfer the mentioned risks to the private party, under this rule most PPPs tend to remain off the government's balance sheet.

When the assessment of risks transferred does not deliver clear conclusions, some additional elements in the partnership contract should also be taken into consideration. Apart from an analysis of the nature of the partners (notably in specific cases where the partner is a public corporation),<sup>10</sup> the importance of government financing, the effect of government guarantees or provisions relating to the final allocation of the assets could be in some cases supplementary criteria.

In practice, a lot of discretion is implied when applying the principles, so that the government can obtain a favorable treatment. In fact, Eurostat states that the public authority must transfer ‘most’ (not ‘all’) of the risk involved. The problem has been analyzed by several authors (e.g., Engel et al., 2014; Schwartz et al., 2008; de Reugemont, 2008; Yescombe, 2007), and is clearly linked with the value for money issue described above. For example, it has problems in the case of minimum revenue guarantees. Contingent guarantees are assumed to transfer risk if they are not likely to be called, and this ambiguity allows for excessive discretion.

There has been international concern, most notably on the part of the International Monetary Fund, that the Eurostat criterion would lead to increase in fiscal risks because it makes off balance sheet treatment of PPP easy to achieve:

“While focusing on a few key risk categories for the purpose of assessing risk transfer is understandable, the Eurostat decision is problematic. Since the private sector typically bears most construction risk and availability risk, the decision is likely to result in the majority of PPP assets being classified as private sector assets, even though the government will bear most demand risk. [...] A concern is that the decision could open the door to PPPs that are intended mainly to circumvent the Stability and Growth Path.” (IMF, 2004, paragraph 38).

In particular, the ‘majority’ of risks and rewards should be assessed from an economic point of view. As IMF (2014a) pointed out, a single risk and reward may imply the ‘majority’ in some cases, while in other cases, a number of separate risks and rewards combined may do so.

In an attempt to resolve these issues, Eurostat together with the European PPP Expertise Centre (EPEC) issued a guide to the statistical treatment of PPPs (EPEC, 2016), that explains how PPP contract provisions are relevant to the Eurostat statistical classification of PPPs.

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<sup>10</sup> A public corporation would meet the qualitative/quantitative criteria for market production and would be classified under normal circumstances outside the government sector.

### 1.3.4 Some accounting issues

Heald (2010) and Heald and Georgiou (2010; 2011) highlighted some issues related to the accounting framework for PPP and the competition between two different criteria: risks and rewards, on one hand, and control, on the other. The authors warn about a potential gap between, on one hand, government financial reporting and, on the other, government statistics prepared on a Eurostat basis. Since they are based on conceptually different approaches, they may result in a different classification of the PPP assets.

In particular, the risks and rewards approach would lead to higher inconsistency in the reporting of PPP project, attributable in substantial part to arbitrage between different formulation of risks and rewards. One of the key appeals of the criterion is that it is subject to quantification. While the use of quantitative techniques appears to be more objective, in practice it is exposed to higher discretion. Much depends upon judgements, in particular in the context of contracts that last several decades, so that in the end the quantitative analysis method can be adjusted to justify the desired accounting treatment. Instead, the principle of ‘substance over form’ should find wider application. However, not even the control criterion may solve the problem. In particular, the requirement of control of any ‘significant’ residual interest may allow room for design-engineering the PPP contract, for example in the case of written or purchased options.

The risks and rewards approach derives from the context of leasing accounting standards. In this case, standard-setters considered that transactions resulting in transfer of risk and rewards are in substance acquisitions or sales of assets and therefore should be accounted as such. Control, instead, is derived from the context of consolidation standards.

The relationship between risks and rewards and control is not simple, as the two criteria have much in common. The allocation of risks and rewards may be taken as an indicator of where control lies, and vice versa, since control may create opportunities to shape where risks and rewards fall. However, it is possible to construct scenarios where there is control but where the majority of risks and rewards fall elsewhere, in particular in the case of pyramidal groups.

Yet, the risks and rewards accounting criterion adopted by the statistical standards is aligned with the notion of risk allocation that is the central driver through which the public sector will gain efficiency benefits from using PPPs. Country experience, in particular the UK’s conversion from a risks and rewards based approach to control based IFRS in 2009-10, have shown that the switch to the control criterion substantially leads to an on balance sheet decision for most PPPs.

IFAC, in its *Basis for Conclusion to IPSAS 32*, commented with regard to the recognition criteria:

“The risks and rewards approach focuses on the economic aspects of the terms and conditions in the arrangement. The IPSASB did not believe this focus to be appropriate for service concession arrangements because the primary purpose of a service concession asset, from the grantor’s point of view, is to provide specified public services on behalf of the grantor using a service concession asset, and not to provide economic benefits such as revenue generated by such assets (e.g., from user fees). Thus, the service potential of the asset accrues to the grantor. Economic benefits are only likely to arise from a service concession arrangement in circumstances where the operator is granted the right to earn revenue from third-party users, of either the service concession asset or another revenue-generating asset. A control-based approach focuses on control over the economic benefits and the service potential of the service concession asset.

As it is often the case that service concession arrangements are entered into for the sharing of risks between the grantor and the operator, the IPSASB also questioned whether sufficiently objective criteria could be established for assessing risks and rewards to enable consistent results to be determined. In addition, weighting of various risks and rewards was seen to be problematic. The IPSASB concluded, therefore, that the risks and rewards approach is inappropriate.” (IFAC, 2011, paragraph BC12, BC13)

## **1.4 Contingent liabilities**

Contingent liabilities represent a particularly critical point in the accounting, reporting and budgeting of PPPs. Contingent liabilities are obligations to make payments that depend on an event occurring or a condition being met. They can be explicit, if the government has clear and firm legal obligation (i.e. guarantees), or implicit, if the government is simply presumed or expected to provide financial support. These contingent subsidies may create government liabilities even in the case of PPPs that are not government paid. Indeed, even when concessions are financed in part or completely with user fees, government commonly grant revenue guarantees to the operator, especially when the concessions last a fixed term.

Disclosing and budgeting contingent liabilities can be challenging since it can be difficult to estimate their value, due to their relatively hidden nature (especially implicit ones). Complications derive from uncertainty as to whether the government will have to pay, and, if so, the timing and amount of spending. However, contingent liabilities can be at the origin of significant fiscal instability if not properly considered. The difficulties with government guarantees are quite widespread on the specialized literature in the subject. Hemming (2006; 2008) and Irwin (2007) discussed the role of guarantees, comprehensively describing why and how governments accept contingent liabilities under PPP projects and how the value of the

guarantees can be calculated. More recent publications of the World Bank (2017, p. 120-139) and the IMF (Irwin et al., 2018) provide a comprehensive overview of the subject and developed summary guidance together with case studies.

Most accounting and reporting standards do not require governments to recognize contingent liabilities, including those arising from accepting risk under PPP contracts. Under cash accounting guarantees would be made apparent only when they are paid, appearing as current expenditure. Under accrual accounting, IPSAS 19 applies. The accounting standard requires contingent liabilities to be recognized only if:

- it is more likely than not that the underlying event will occur, and
- the amount of the obligation can be measured with sufficient reliability.

In this case, the net present value of the expected cost of the contingent liability should be recognized as a liability when the contract is signed. However, as noted by Engel et al. (2014), as a rule that relies on a probabilistic assessment, it can be easily manipulated, since probabilities are ultimately a matter of judgment. Guarantees thus soften budget constraint, allowing the government to circumvent normal budgetary procedures and congressional oversight.

## **1.5 Disclosing PPP commitments**

Most international reporting and statistical standards agree that even when PPP commitments are not recognized as liabilities, they should be transparently disclosed in notes to the accounts and reports, in order to improve the information that is available about the future fiscal costs and risks of PPPs. Disclosure of PPP commitments is important to prevent the potential bias toward PPPs and to manage the fiscal implication of PPPs contracts.

Disclosure is suggested by Heald (2003) to address the accounting issues of PPPs. Schwartz et al., 2008 contains a collection of articles that analyze PPP accounting, reporting and auditing, providing also some guidance in setting out an overall framework for good management of public investments projects and presenting some country cases. Publications of the IMF (Akitoby et al., 2007; Cebotari, 2008) and World Bank (2013; 2018) discuss the topic and provide some best practices, presenting also country cases.

Even when PPPs are conceived to deliver value for money and in case of user fees based projects, governments typically bear or share certain risks. For example, governments may



provide guarantees on risk factors such as demand, exchange rates, or certain costs. PPP contracts often contain compensation clauses in case of termination of the agreement for a range of reasons. Even with no guarantees, every PPP contract will present implicit contingent liabilities. For instance, liabilities arising from the need to preserve the project in case of SPV bankruptcy, or resulting from public expectations that must be satisfied. In addition, moral hazard may occur if the private investors perceive that the government cannot afford to let their PPP project fail. They may then force a renegotiation of the PPP contract to obtain a tariff revision or to force the government to shoulder the cost of an unexpected event. As a result, governments often take on significantly more fiscal risk under PPP projects than they had expected, or than would be consistent with prudent fiscal management. Fiscal risk can be compounded by the influence of the accounting bias toward PPPs and poor fiscal transparency. The cumulative impact over several PPP projects can create substantial hidden fiscal risk.

In some countries, the government's annual payments under government funded PPP contracts amount to more than ½ a percent of GDP, while in developing countries user funded PPPs are sometimes used for projects that are very large with respect to government resources (Funke et al., 2013). The hope in these cases is that the costs of the project will later be covered by the users, but the government – and, in the end, the taxpayers – often bears the risk that revenues prove insufficient.

Governments' guarantees to PPPs often result in higher costs than expected. Columbia's government had to pay \$2 billion in 2005 for PPP contracts on toll roads, airport and utilities made in the 1990s, as a result of lower than expected demand. For the same reasons, government of South Korea had to pay tens of millions of dollars every year for a contract on a privately financed road whose traffic revenue where lower than expected. PPP projects can also create substantial implicit liabilities for governments. When PPP projects are financially distressed, governments can be under significant pressure to bail them out to avoid disruptions in service. Mexico institutional layout is characterized by a majority of government-owned banks. The country embarked in a large PPP program in the 1990s on roads building, whose financing was highly leveraged, based on floating rate debt provided by the local banks. As a result of lower than forecasted demand and increasing interest rates, the government had to bail out the concession, resulting in the assumption of \$7.7 billion in debt. Another example comes from the partially privatized United Kingdom National Air Traffic Services. In years subsequent the privatization, the company recurred largely to debt to finance its investments and operations. When a crisis in airline traffic occurred, after 9/11 event, the UK government had to inject £100

million in the company to reduce the perceived risk of a disruption in the service (World Bank, 2017).

To reduce the occurrence of such events there is need for a strong enabling legal and institutional environment, which includes several important elements. As with other contingent or nontraditional liabilities, the known and potential fiscal obligations created by the PPPs – which primarily take the form of contractual service payments and expected calls on guarantees – need to be assessed and reported. Funke et al. (2013) recommend that governments prepare and publish forecasts of future cash flows under existing and planned PPP contracts and ensure that those forecasts are fully incorporated in high quality medium and long term fiscal projections and analysis of debt sustainability. Since the risk in PPPs is that they are used to reduce this year deficit at the expenses of higher deficits in the future, one way of ensuring that fiscal reporting is more informative is to guarantee that it includes estimates of future deficits under current policy (to be effective, the forecasts must have a long horizon; even if not accurate, they can provide a useful best guess). Governments can also publish PPP contracts and describe and, where possible, quantify all the future fiscal costs and risks the contracts create. The PPP Fiscal Risk Assessment Model (PFRAM) has been developed by the International Monetary Fund along with the World Bank (2016) in order to answer the need for an evaluation of the fiscal implication of PPPs. It is an analytical tool to evaluate potential fiscal risks originating in PPP projects, developed to quantify the macro fiscal implication of PPP projects in order to ensure that they are not exposing public finances to unsustainable fiscal risks.

Funke et al. (2013) and Irwin (2012) recommend that accrual based fiscal data and standards, such as IPSAS, would be more widely adopted. These standards often treat investments in PPPs as government investments and records the PPPs assets on government's balance sheet, along with a corresponding liability, affecting reported spending and debt. However, governments often measure their debt and deficit in more than one way. In order to properly prevent the bias and avoid hidden fiscal risk, such standards should be the ones on which basis the main fiscal aggregates are calculated. Government budgeting should be managed in a consistent manner as well. The United Kingdom government accounting has moved to International Financial Reporting Standards in 2009-10. These represent the basis for IPSAS standards, and the accounting treatment is substantially the one described in paragraph 1.3.1. However, the budgetary treatment of PFI in the same year has been on a national accounts basis, rather than on an IFRS basis, opening up opportunities of arbitrage (Heald, 2010).

Considering United Kingdom, Irwin (2012) notes as after the introduction of IFRS, government's financial statement includes liabilities related to pensions and PPPs that are not recognized in the country's fiscal statistics. The liability related to pensions is large (81% of GDP), while that related to PPPs is significant but much smaller (2% of GDP).

Not less important, governments should monitor alternative fiscal indicator, since a problem suppressed in one fiscal indicator is likely to show up in another. Moreover, the problems of looking at a single indicator of fiscal performance (the deficit) and a single indicator of fiscal position (the debt) are compounded when indicators are subject of fiscal targets, given the pressure that is placed upon them, and they tend to become less accurate. Thus, it is essential to have alternative indicators of fiscal performance and fiscal position. More attention should be put to change in net worth. Indicators from accounting reports can be useful supplementary indicators when the headline indicators are drawn from fiscal statistics, and vice versa.

Irwin (2012) discusses how governments make use of accounting devices, such as PPPs, to create artificial reduction in deficit and debt. Since accounting devices reduce this year reported deficit by increasing subsequent deficits, fiscal adjustment may be partly an illusion, further contributing to the fiscal problems and undermining the quality of fiscal indicators.

Even if the nature of accounting devices makes hard data on the size of the problem scarce, given the available data the author finds evidence of correlation between the measure of 'one-offs, creative accounting and reclassifications' and market perception of default risk (CDS spread) in early 2011.

The author also conducts an interesting comparative analysis of indicators derived from budgetary accounting and indicators derived from reports prepared according to different accounting standards. For example, in the United States, in 1995-2010, the U.S. budget deficit underestimated long run costs as measured by the accrual measure by an average of 2 percent of GDP a year.<sup>11</sup>

Accounting and reporting are one of the most important factors contributing to the bias toward PPPs. Since accounting and reporting rules are mostly country specific, so is the capacity to avoid the bias. Some governments follow standards that put most PPPs on their balance sheet. For examples, governments in Australia and United Kingdom, that follow IFRS based accounting standards, recognize typical government funded PPPs on their accounting balance sheets. However, most countries do not recognize PPPs on their balance sheets. Some adopt

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<sup>11</sup> This does not imply that cash surpluses are generally greater than accrual surpluses.

only cash based accounting or don't follow any specific standard. Other apply accrual or partial accrual accounting that treats most PPPs as off balance sheet.

Overall, fiscal accounting and reporting information is very limited, and comparing national practices is complicated by the fact that data on PPPs can be generated and reported in several ways. For example, the reporting of PPP varies depending on the type of project (government versus user funded), on the accounting basis (cash versus accrual accounting), on the classification of the asset and consolidation of fiscal data (privately or public owned asset), on the consistency among different fiscal reports (budget reports versus financial statements versus statistics). For example, some types of PPPs are not included in budget reports, which are typically on a cash basis, while annual financial statements prepared in accordance with IPSAS would generally account for most PPPs. Similarly, fiscal statistics and fiscal aggregates would exclude or include PPP transactions depending on the main data source used to compile them (budget reports or financial statements). Failure to report PPP arrangements in headline fiscal indicators or fiscal targets aggravates government's decision to pursue PPP for the right reasons (i.e. when they offer value for money and are affordable) (Funke et al., 2013).

World Bank (2018) proposes three areas of attention, that can be considered good practices for managing the fiscal implications of PPP: ministry of finance's approvals; proper assessment of the fiscal implication of PPPs; specific budgetary, accounting, and reporting treatment for PPPs to account for their real fiscal implications.

However, data gathered during *Procuring Infrastructure PPP 2018* shows that the mechanisms proposed are not widely adopted and that countries worldwide result on average ill-equipped to deal with the fiscal implications of PPPs.<sup>12</sup> Moreover, it seems that the adequacy of fiscal treatment for PPPs correlates very closely with overall transparency in the budgetary process, showing that this may be a broader problem of weak governance beyond PPPs.

In particular, fiscal affordability assessment is the most common mechanism adopted (89% of the surveyed economies, even if only 25% have a proper methodology). In 81% of the countries is required the ministry of finance's approval before launching the procurement process, but only 54% necessitate a subsequent approval before signing the contract. The main area of concern is budgeting (where only 24% of the countries have proper treatment) and accounting/budgeting (36%). In particular, this last area appears to be the weakest link in the

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<sup>12</sup> The best prepared countries appear to be Austria, United Kingdom, Australia, Chile, Uruguay, Philippines and South Africa (World Bank, 2018).

chain to ensure fiscal sustainability of PPPs, with specific provisions that are still very scarce in the great majority of the countries worldwide. A pattern is identified in analyzing countries' framework. Non OECD countries place greater emphasis on the ministry's approval and have only rare provisions concerning budgetary and accounting/reporting treatments. OECD countries behave in the opposite way, with the ministry's approval being less common, but provisions regarding accounting/reporting treatments being more diffused. The following chapter will describe how some countries have interpreted the standards in practice.

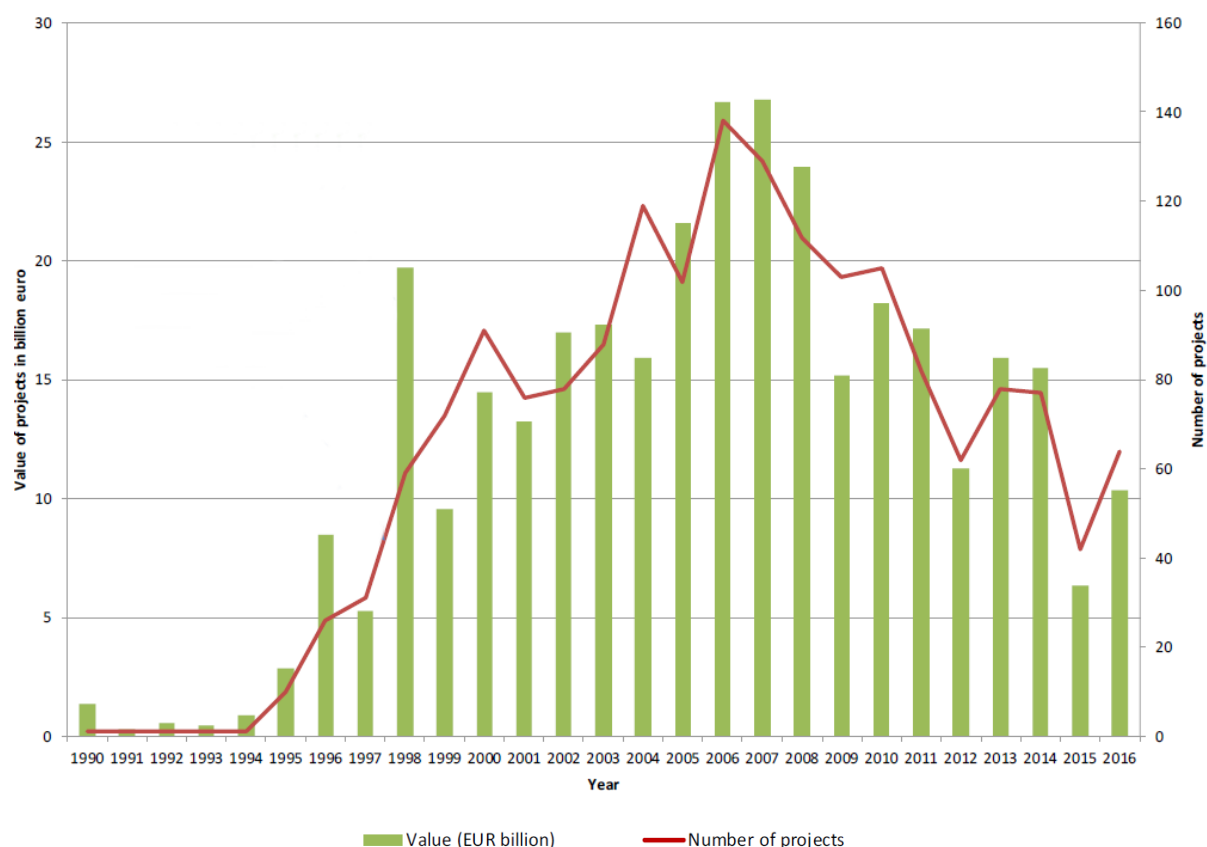


## Chapter 2

### Country studies

According to the European Expertise Centre (EPEC), 1,749 PPP contracts have been signed in Europe from 1990 to 2016, representing a capital value of 336 billion euro.<sup>1314</sup> Before the financial and economic crisis, the PPP market was experiencing a sharp increase in volume, but since 2008 the number of new PPP projects has decreased considerably (Figure 3 and Figure 4). Most projects were in the transport sector, which accounted in 2016 for one third of all PPP investment, followed by the healthcare and education sectors.

Figure 3 – European PPP market from 1990 to 2016

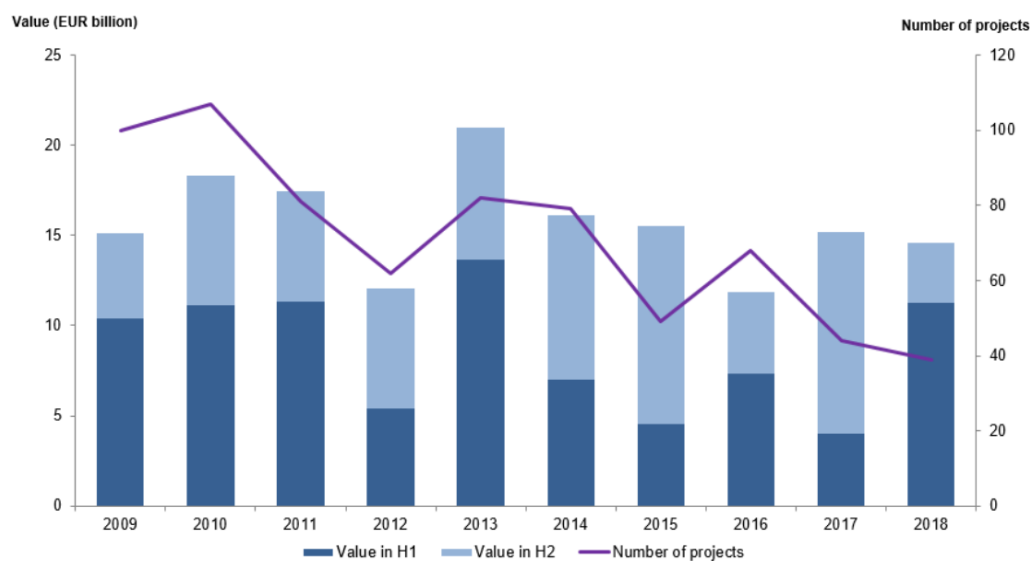


Source: EPEC.

<sup>13</sup> This is the total nominal capitalized cost of the project as recorded in the financial model at financial close. This includes SPV debt plus total shareholder investment (equity and shareholder loans) plus any authority capital contribution.

<sup>14</sup> The surveys in question cover European projects reaching financial closing with a transactions value of at least 10 million euro.

Figure 4 – 10 years view of the European PPP Market (2009-2018)



Source: EPEC (2019).

In Europe the PPP approach was pioneered by the Private Finance Initiative (PFI) launched in 1992 in the United Kingdom. PPPs have also been in operation for more than 25 years in Portugal. Other European countries have also invested in PPPs, especially France, Spain, Germany and Italy. Some member states implemented numerous PPP projects, such as the United Kingdom, with over 1,000 PPP projects worth almost 160 billion euro during the period, and France, with 175 PPPs worth almost 40 billion euro. On the other hand, 13 of the 28 Member States implemented fewer than five PPP projects.

In the United States, PPPs are most common for projects involving highway and road transportation, rail, water supply and waste water treatment. PPPs have also been encouraged in Australia (in particular in the state of Victoria) and South Africa.

In developing countries, PPP agreements have grown steadily since the 1990s. In Central and Latin American and Chile and Mexico were the pioneers in the use of PPPs. According to the World Bank's Private Participation in Infrastructure database, between 2000 and 2010 twenty-nine countries in Latin America and the Caribbean implemented 688 infrastructure projects with private participation for capital value of \$191 billion. Between 2000 and 2010, 17 countries out of the 23 in East Asia and Pacific implemented 908 infrastructure projects with private participation for capital value of \$154 billion. Other countries with significant PPP programs include Brazil and China. India is the largest market for private sector participation in infrastructure in the developing world.



## 2.1 United Kingdom

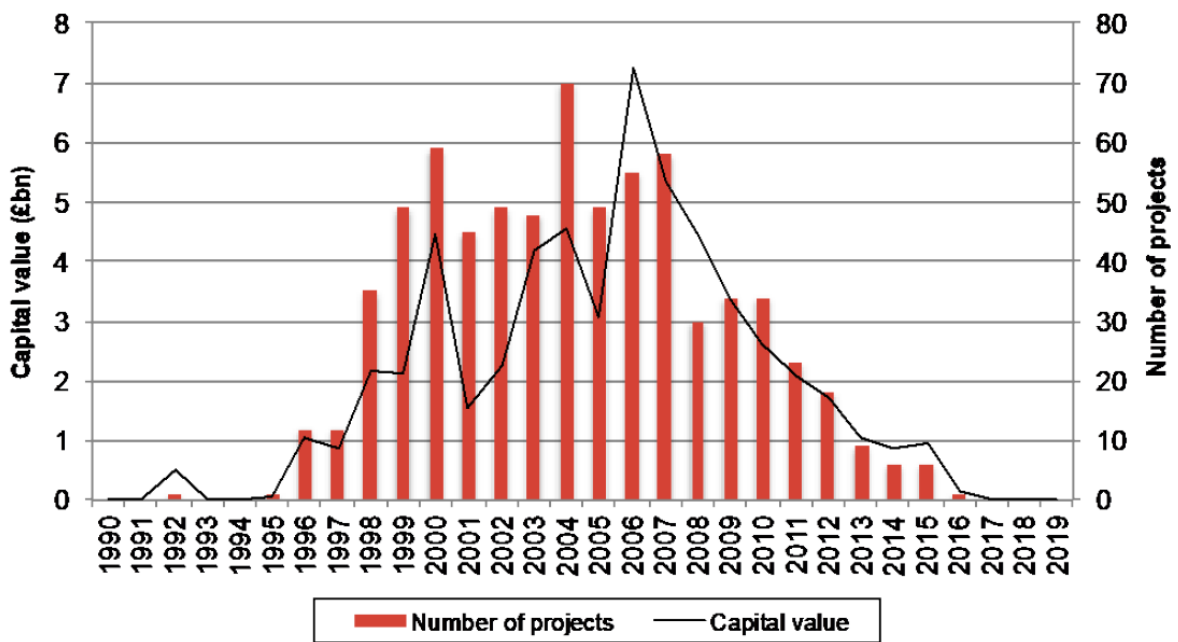
United Kingdom has delivered a significant amount of investment across the public sector through PPPs, and in particular through Private Finance Initiatives (PFI) and Private Finance 2 (PF2), two large British PPP programs. In British PFI and PF2 projects the government is the main purchaser of the project's services (government funded PPPs), with payments related to the private party's performance. Payments to the private finance contractors do not begin until the building is completed. PFIs have been used to deliver investment in infrastructure across a wide range of sectors including hospitals, schools, roads, prisons, waste management and energy-from-waste infrastructure, housing, and military accommodation and equipment.

The use of PPPs in the country has decreased in last years. Projects signed before May 2010 have a capital value of £48.6 billion, compared to £8.4 billion for projects after May 2010. Between 1997 and 2010 on average 55 contracts were signed a year. Since May 2010, 84 contracts have been signed, with an average of 9 a year. As of March 2018, the total estimated capital value of PFI and PF2 projects across the United Kingdom was £57 billion. By March 2018, there were 704 current projects, with 700 projects in operation and 4 projects in construction (H. M. Treasury, 2019). Other forms of PPP, such as NHS projects under the Local Improvement Finance Trust (LIFT) program and those procured under the non-profit distributing (NPD) and hub models used in Scotland, as well as Intercity Express Programme and Thameslink Rolling Stock, are not covered in these numbers.

Until 2012, PFI was the preferred model of PPP from UK government. In 2012, PFI was replaced with Private Finance 2 (PF2), in response to widespread concerns about value for money. PF2 was used six times, for projects with a total capital value of around £900 million, comprising around 0.5% public investment over the period 2012 to 2018. The projects launched concerned five school batches under the Priority Schools Building Program (PSPB) and the Midland Metropolitan Hospital. In the 2018 Budget, UK government announced that it will no longer use PF2 for new government projects (H. M. Treasury, 2018). This announcement did not affect devolved administrations (including Scotland and Wales, which both have their own models of PPP).

Figure 5 shows the number of existing PFI and PF2 contracts that were signed (reached financial close) in each year and their capital values.

Figure 5 – Portfolio of current PFI and PF2 projects. Number and capital value by year of financial close



Source: H. M. Treasury (2019).

The future government obligations associated with the investments amount to £188.35 billion over the next 30 years, accounting for inflation.

Overall, United Kingdom has one of the best developed PPP programs and adopted it widely for public investment. In 2004, the PFI program was responsible for about 14 percent of public investment. However, as seen, its use decreased a lot over time. In recent years there has been a strong adverse response against PFIs in the United Kingdom. Policy makers have discovered the hidden fiscal costs of PFIs and the high rates of returns for PFI investors. This is reflected in the falling value and number of signed PFI projects in last years.

Early private investment in public projects in the United Kingdom were governed from 1981 by the Ryrie Rules, which laid down that any privately financed solution must be shown to be more cost effective than a publicly financed alternative, and that privately financed expenditure by the nationalized industries could not be additional to public expenditure provision, which would be reduced by the amount of any private finance borrowed. Any role for private finance in increasing investment in public infrastructure was thus ruled out and the benefits sought were mainly efficiency gains (House of Lords, 2010). This constraint was removed with the introduction of the Private Finance Initiative by the Conservative Government in 1992.

The approach to PFI is based on three principle. First, the public sector specifies the outputs it requires from the private counterparties. Second, parties share the risk, with each party

managing the risks it is best able to control. For example, the SPV is responsible for delays in construction and service quality. Third, the public sector ensures the quality and continued effective delivery of public services. It has the power to reduce payments for poor performance, the flexibility to make necessary changes in the future, and the right to terminate the contract (Engel et al., 2014). Appropriate transfer of risks allows to set the proper incentives for a better management and value optimization of the contracts; the operator does not receive payment until services are provided.

The basic principle in the PFI approach is that PPPs are only used when they offer value for money, defined as the optimum combination of whole life costs and quality to meet the user requirement. The implementation methodology of this principle requires the existence of a public sector comparator, which corresponds to the estimated cost of providing alternative services managed by the public sector and assuming the use of public resources for the capital investments.

Problems with PFIs in the United Kingdom are related to frequent renegotiations and deficiencies in the construction of the public sector comparator, especially for early projects. Significant changes were made in one third of projects between 2004 and 2006. The value of these changes, on average, was just over £4 million per project per year – the equivalent of 17 percent of the value of each project (NAO, 2007). As noted by the National Audit Office (NAO, 2007) “the more changes there are the more likely it is that value for money is at risk”. The issue is common to other countries. According to Guasch and Andres (2008), 51 percent of all PPPs awarded in Latin America and the Caribbean from the late 1980s to 2005 have been renegotiated (see also Guasch, 2004).

Some issues related to adjustment in the discount rate and taxes were addressed by subsequent reforms. However, the PSC methodology is still supposed to create a bias towards PFI projects. Most notably, the public sector comparator remains subjective (Engel et al., 2014). Small changes in the assumption can determine the choice between PFIs and public provisions. This suggests that the real underlying choice of PFIs may be based on something else, most probably the balance sheet impact.

Another issue is contract flexibility. The government keeps the possibility to change aspects of the contract, subject to agreement with the contractor. Competitive tendering is required if the change exceeds £100,000, but only occurs in 29 percent of cases (Engel et al., 2014). This behavior determines a lack of competitive bidding that in most of the cases is not justified, especially if it is used to introduce clauses that were excluded from the initial offering. It is not

appropriate to eliminate items at the competition stage and then reinstate them when the project has already been awarded, as most of the time this will deteriorate value for money.

It has been observed that PFI projects reduce budgetary flexibility at the local level. Because the obligation of paying the unitary charge is contractual, local public authorities cannot make reductions in the funds allocated to PFI projects. It is not clear if this create problems or induces discipline to public finances.

PFI program has come under criticism for concealing the cost of the government's obligations. A United Kingdom House of Lords Select Committee inquiry into PFI (House of Lords, 2010) found that many witnesses imputed the choice to use PFI to the fact that the government's commitments under these contracts were often not recognized as part of public debt. Public bodies were expected to choose the best procurement method to deliver public services with the objective to deliver good value for the taxpayers. However, the general opinion was that privately financed projects were often the “only game in town”, and that most projects wouldn't find realization under other procurement method. This differs markedly from the official presentation by the Treasury that PPP contracts are only pursued where they represent the best value for money. The institutional bias, according to the House of Lords Select Committee report, was related to the fact that the treatment of PPPs in financial accounts and budgets makes it seems more affordable from the public authority's perspective. It seems that this affected not only how a project was funded but often led public bodies to shape the project to ensure its off balance sheet treatment. This occurred because there was the opportunity for regulatory arbitrage by the public sector client.

Until April 2009 UK GAAP was used as the basis for public sector financial accounts. Therefore, until April 2009, a PFI was recorded in the same way in both the public authority's financial accounts and the national accounts. UK GAAP only reported the liabilities if the balance of risks and rewards was with the public sector, and excluded them if the balance of risks and rewards was deemed to be with the private sector. However, determining and interpreting the balance of risks was left to individual public bodies and their auditors. This led to most PFI agreements to be treated as off balance sheet projects. Around 78% (£22 billion) of operational PFIs in England by capital value were not recorded on the balance sheet of public

sector financial accounts and were thus excluded from the public sector net debt statistics part of the national accounts (NAO, 2009).<sup>15</sup>

Heald and Georgiou (2009) demonstrated that there were huge variations across functional areas of UK government as to whether PPPs were on or off balance sheet under UK GAAP, therefore leading to inconsistent treatment in financial statements. Prisons and roads were generally on the balance sheet of the public sector client, whereas hospitals and schools were almost entirely off. They attributed this not to objective differences between PPPs but to the expenditure control and audit arrangements. According to the authors, the case of a PPP asset that is not reported neither in the private nor in the public balance sheet is therefore jointly attributable to the control framework faced by the public sector client and the accounting advantages.

The most important case of project failure is the London Underground Metronet PFI bankruptcy for cost overruns in 2007. According to the House of Lords Select Committee on Economic Affairs (2010), this much publicized bankruptcy gave PFI projects a bad name in the United Kingdom. Uncertainty regarding the ability of Metronet to borrow enough funds to finance the upgrade of the London Underground led Transport of London to guarantee 95 percent of its debt. As a consequence of the guarantee, Metronet's lenders had less incentives to protect their investment and to provide due diligence, because only five percent of their investments was at risk. The fact that the companies behind Metronet were allowed to have little of their equity at risk did not help either. So, when the SPV failed, the central government had to step in with a £1.7 billion payment to help the city of London meet the guarantee of Metronet's borrowing. The NAO estimated the direct loss to taxpayers to be somewhere between £170 million and £410 million. Yet, according to the House of Lords Select Committee on Economic Affairs, this project was realized under exceptional circumstances because huge debt guarantees together with a typically narrow equity base limited risk transfer. This case is a significant example of fiscal risk that can arise from bad financial management of PPP contracts. To avoid such high risks the government should not guarantee large amounts and a high proportion of debt as a means to make highly geared PPPs happen. For such exceptionally large and complex projects alternative procurement approaches should be used. In addition, as a general concept, it must be underlined that the amount of risk that is effectively transferred to the SPV is limited by the amount of equity that the shareholders put at risk. If the risks that the company is trying

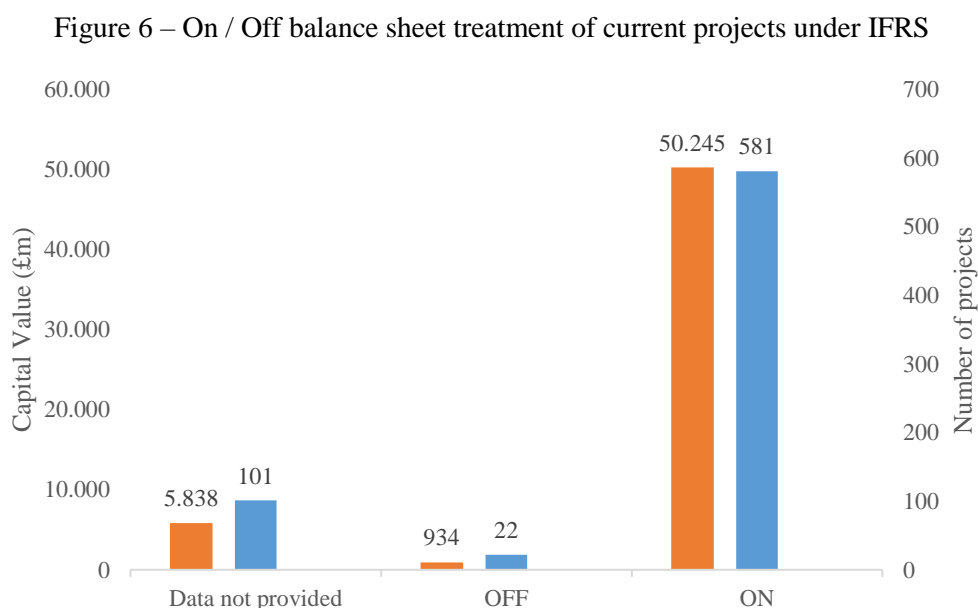
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<sup>15</sup> These numbers exclude the London Underground PPPs, which before the failure of Metronet had a capital value of about £18 billion and were on-balance sheet.

to bear are larger than what shareholders are investing, it may be that the shareholders will walk away from the project.

The Treasury issued in March 2007 the announcement of the conversion to International Financial Reporting Standards (IFRS) for 2008-9, later rescheduled to 2009-10. Under IFRS those assets which are controlled by the public sector, which include most private financed projects, will be brought on the departments' balance sheets. The IFRS criterion of control differs from the European System of Account (ESA) criterion of risk; thus, the department accounts and national accounts will differ. Therefore, despite the adoption of IFRS, as long as PFI investments continue to be accounted under Eurostat rules for national accounts, thus being excluded from national debt calculations, there will be incentives to shape the VFM analysis in favor of PFI.

Currently government reports under IFRS and ESA. Starting from H. M. Treasury data on current PFI and PF2 projects, [Figure 6](#) reports the balance sheet treatment of the 704 current projects under IFRS. As shown, most projects are recorded on the government's balance sheet under these rules.

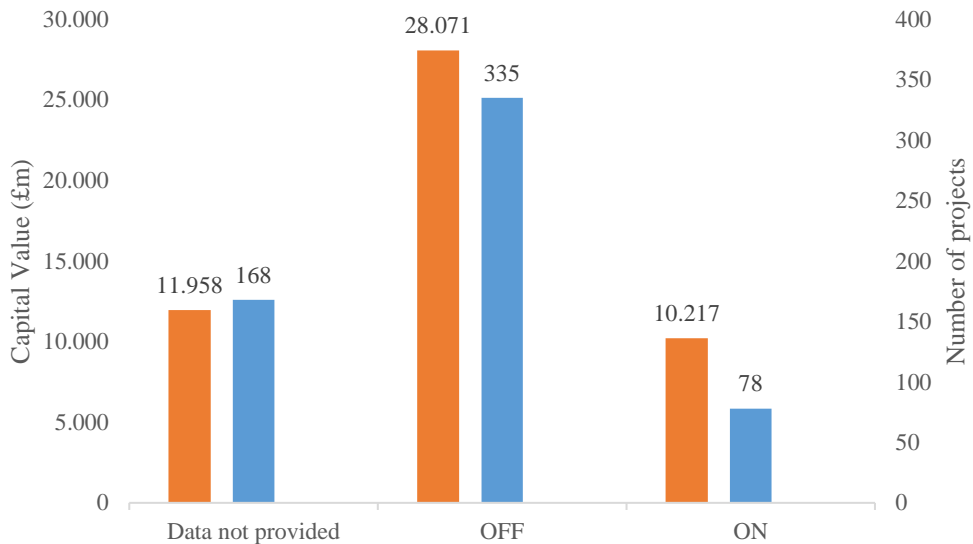


Source: author's elaboration from H. M. Treasury current projects data.

If we focus on the 581 projects that are reported on the government's balance sheet under IFRS, we can see from [Figure 7](#) that they have a substantial different treatment under Eurostat rules. Under these rules, in fact, most of the contracts will be considered to transfer most risks to the private party and therefore will not be included in the government's balance sheet. Hence, the associated commitments won't be included in the country's public debt statistics, creating a significant difference with the government's financial statements written on an IFRS basis.

The gap can be determined in approximately £28 billion. For a significant portion of projects that are on balance sheet according to IFRS, however, data on the ESA treatment is not available.

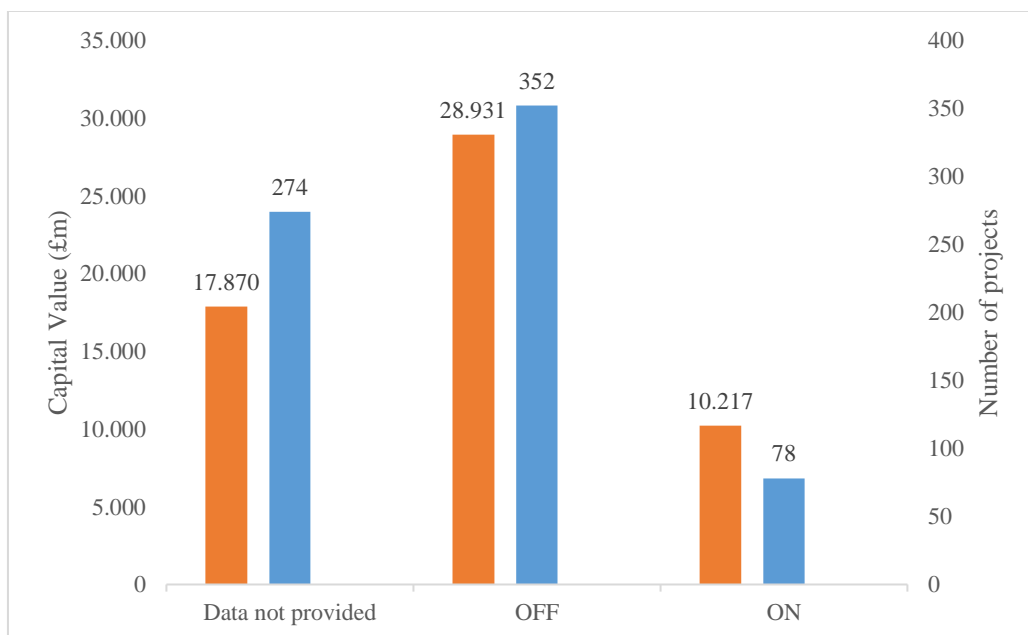
Figure 7 – ESA treatment for on balance sheet projects under IFRS



Source: author’s elaboration from H. M. Treasury current projects data.

Figure 8 reports the balance sheet treatment for all current projects according to Eurostat rules. As shown, under these rules most of the projects are treated off the government’s balance sheet. However, for a significant portion of the overall projects (39%), data about the statistical treatment are not available.

Figure 8 – On / Off balance sheet treatment of current projects under ESA



Source: author’s elaboration from H. M. Treasury current projects data.

UK government seeks transparency and value for money by publishing detailed information relating to single PFI projects and projects in procurement on the government's website.<sup>16</sup> This includes an annual publication and accompanying spreadsheet that contains detailed information about existing projects and related future liabilities. Information comprises sponsoring department and procuring authority, sector and geographical area, key dates about the procurement process, contract duration, balance sheet and budgeting treatment under both IFRS and Eurostat rules, capital value, forecast annual payments, equity holders and SPV information for each of the projects. In this way, the H. M. Treasury provides easily accessible information of forecast of cash flows for all the life of the contract.

Since a key criticism of the original PFI model was a lack in understanding and transparency of the financial returns earned by the SPV shareholders, the government now requires equity holders in PF2 projects to provide information on financial returns to the H. M. Treasury. This information is now included in the annual data publication about PFIs projects.

As introduced above, UK government has announced that it will no longer use PFI and PF2 (H. M. Treasury, 2018). Existing contracts will continue, as the compensation commitments in case of early termination would rarely mean value for money. The government will pilot a new "Centre of Best Practice" to provide support for contract managers in order to maximize the value of these contracts. The government declared that it will continue to support private investment in infrastructure through a range of successful established tools, such as Contracts for Difference, the Regulated Asset Base Model and the UK Guarantee Scheme. Government's decision was taken in light of the decline in use of PFI in recent years (86% of existing PFI and PF2 contracts were signed before 2010). In addition, PFI and PF2 have also been criticized by the Public Accounts Committee for their inflexibility, whilst the Office for Budget Responsibility has identified private finance initiatives as a fiscal risk to government.

Summing up, in retrospect, it seems clear that the main motivation behind the introduction of PPPs in the United Kingdom was to obtain a source of off balance sheet resources to finance investments in public infrastructure and services. Still, a secondary motivation may have been the potential for efficiency improvements. This was done to comply with the Maastricht agreements as well as a self-imposed public debt limit of 40 percent of GDP, but it served no social purpose because the United Kingdom did not face rationing in the credit markets. As the PFI model developed and became more established, reforms were taken in order to improve the

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<sup>16</sup> The most updated information on PFI data can be found at <https://www.gov.uk/government/publications/private-finance-initiative-and-private-finance-2-projects-2018-summary-data>.



VFM concept, but it still faces serious problems because of its adaptability to political requirements. As the problems and weakness with PFIs have become more well known, their adoption in the country has fallen. It is probable that the UK government will revisit its approach to private finance projects, however it is still not clear which direction it will take. The United Kingdom case also represents a good example for what concerns the disclosure of PPP commitments and information and the country's rules represent pioneering solutions in the field of PPPs.

### **2.1.1 The UK Guarantee Scheme for Infrastructure Projects**

The United Kingdom also presents an interesting Guarantee Scheme for private finance investments in infrastructure projects. At European level, an Infrastructure Guarantee Facility is under discussion. Some guarantees for projects are currently provided by the European Investment Bank. Such schemes have the function of guarantee project's debt, supporting markets where institutional investors' appetite is more limited. However, a number of market participants may prefer to take certain projects without the guarantee in order to access the higher yield available. Therefore, the United Kingdom like other member states will need to manage carefully the balance between inciting appetite and crowding it out.

The UK Guarantees Scheme supports private investment in UK infrastructure projects. It works by offering a government-backed guarantee to help infrastructure projects access debt finance where they have not been able to raise finance in the financial markets. The UK Guarantee Scheme has been introduced to avoid delays in UK infrastructure projects that may have stalled because of adverse credit conditions. It can issue up to £40 billion of guarantees. Currently it has issued 9 guarantees, totaling £1.8 billion of Treasury-backed infrastructure bonds and loans and supporting over £4 billion worth of investment. Projects can be considered from a wide range of infrastructure sectors including transport, utilities, energy, and communications.<sup>17</sup> A major rating agency has indicated that the scheme effectively assigns the UK sovereign rating to infrastructure project guaranteed debt instruments.

The UK Guarantee Scheme was launched in July 2012. The first project to be guaranteed by the UK government under the scheme, in April 2013, was an UK based power generator for the conversion from coal to biomass, for a guaranteed amount of £75 million. In subsequent years

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<sup>17</sup> Information about the UKGS can be found on the government website at <https://www.gov.uk/guidance/uk-guarantees-scheme>.

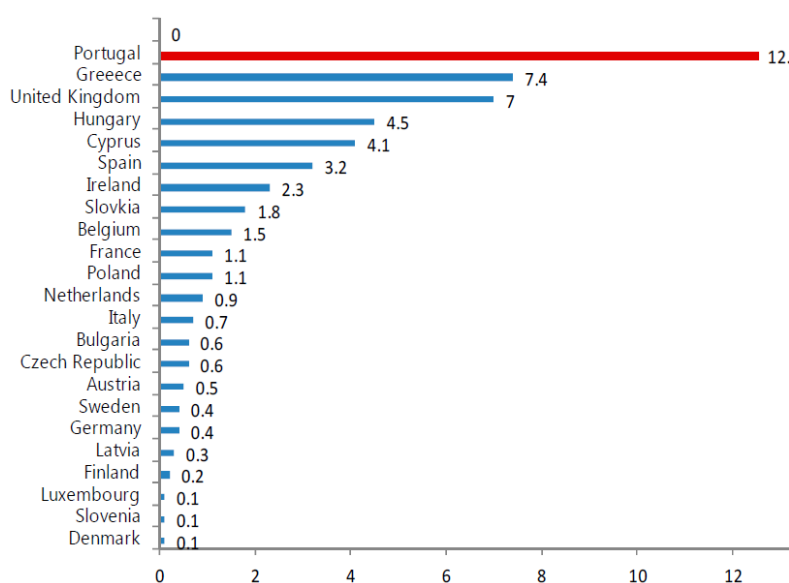
other nine projects were approved, mainly in energy and transport sector, but also university and housing. The bigger approved project (not yet issued) is the Hinkley Point C nuclear power station, for an amount of £2 billion. Another important project is the extension of the northern line in London, with a guaranteed amount of £750 million.

## 2.2 Portugal

The Portugal case is of particular interest when analyzing the relationship between, on one hand, fragmented PPP institutions and inadequate budget practices and, on the other, exposure to a greater fiscal risk that leads to the accumulation of PPP liabilities which later contribute to public sovereign debt problems.

As shown in [Figure 9](#), relative to its GDP, Portugal had the highest cumulative investments in PPPs in the EU in the past decade.

Figure 9 – Cumulative investments in PPPs in European countries, 1990-2011  
(percent of GDP)



Source: IMF (2014b).

Portugal has a decades long history of PPPs, mostly for highway infrastructure, water infrastructure and hospital. The first major concession contract was the contract with Lusoponte for the Vasco da Gama bridge signed in 1994. This project involved several pitfalls that

triggered rounds of complex renegotiations. Altogether, from 1995 to 2001, Lusoponte had seven renegotiations and rebalancings, totaling €408 million of corresponding compensation.<sup>18</sup>

In 1999, Portugal launched an ambitious road investment program (known as the ‘SCUT shadow toll program’). The country contracted seven shadow toll schemes between 1999 and 2001 as part of its intensive expansion in its highways network. However, several of the new road PPPs were troubled by environmental problems post-adjudication and by shifting political decision regarding the corridors, which complicated expropriations and construction and which resulted in almost immediate claims for rebalancing (Abrantes de Sousa, 2011). Between 2008 and 2010, the payments for these shadow toll roads doubled from €400 million to nearly €900 million. This financing model proved to be unsustainable (Cruz et al., 2015). After the financial crisis and the IMF intervention (that will be detailed later) the schemes were converted to direct toll roads, with revenue going to the public sector which pays the concessionaires on the basis of an availability mechanism.

Other PPP projects included urban rail concession, port terminal concession, hospitals, municipal water distribution and waste management concession, car parks and schools. Nearly all of the water concessions have been renegotiated.

However, despite having a number of PPP contracts in existence, the Portugal hasn’t a ‘PPP program’ as an explicit component of a centrally managed investment effort. As a result, PPP contracting has been weak and fragmented, characterized by policy discontinuities, legal loopholes and even evasion of existing public finance management guidelines. Abrantes de Sousa (2011) provides a deep analysis of the deficiencies of Portuguese PPP projects. For example, although an annual ceiling on new PPP liabilities has been required since 2001, it was never implemented in practice. The widespread idea is that there has been a lack of adequate central control for creating PPP. This is due to the fact that they were based on the wrong incentives since they were used to loosen budget constraint in the short term, as they were recorded, according to Eurostat rules, in the private partner’s balance sheet.

It seems that the Portuguese government went too far in launching too many projects too quickly, without consolidating know-how in the public sector, without an adequate legislative framework and without a structured project management organization. The regulatory framework of the country was poorly developed: until 2003, the Ministry of Finance was not

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<sup>18</sup> The Vasco de Gama Bridge was also one of the few PPP projects that have received EU grants. The Vasco de Gama Bridge was audited by the ECA in 1999. The ECA raised observations about structural problems affecting the project, weaknesses in the revenue forecasts and excess in the total EU contribution.

involved in the development of PPPs, a fiscal risk analysis was not conducted and commitments on PPP projects were not integrated as public debt nor consistently reported. Therefore, PPPs were not fully considered when assessing the fiscal sustainability of the country. A reform in 2003 introduced the requirement for the Ministry of Finance to be involved in the project tender panels and generalized the requirement for a public sector comparator and set guidelines for risk sharing and renegotiation. However, the institutional arrangements have remained inadequate and often the provisions were not applied in practice. In particular, high part of risks and sustainability issues derived from the absence of a PSC in practice, weak contract management structure on the public sector side, and the high frequency of bilateral renegotiations and rebalancings. In this context, bidders ‘competed for the market’ but then ‘settled into the good life’, no longer having to ‘compete in the market’ (Cruz and Marques, 2011).

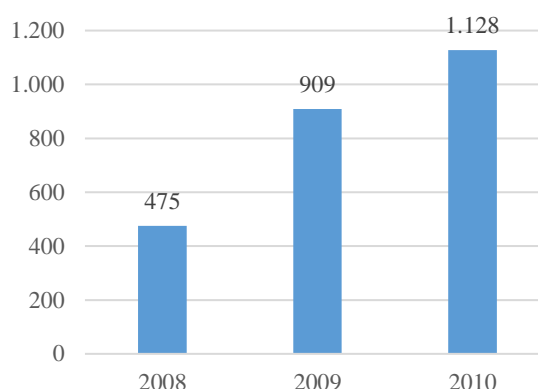
In quality terms, the trends towards availability payments and frequent renegotiations damaged the value for money of investments and the productivity. Overinvestments in costly infrastructure caused issues with excess capacity. The critical problem has to do with the quantity of PPP transaction and with negative synergies and duplication which led government to cancel plan for new projects. In addition, as noted by Abrantes de Sousa (2011), ‘the increasing reliance of PPPs promoted the illusion of budget discipline that was in fact achieved by removing a sizable portion of public investment from the visible direct public expenditure and direct public debt’.

To complicate the situation, the Portuguese banking system became highly leveraged, with high exposure to external funding. These represented 42.2% of gross external debt in 2010. Portuguese local banks invested a lot in PPP projects. When foreign bank retracted sharply after 2008, local banks intensified their underwriting. However, when banks ratings were cut below levels required by the EIB for its guarantors, bank guarantors had to pay additional fees to the EIB. As Portugal and its banking system faced ever increasing funding costs and eventually lost access to the international financial markets, some PPP projects in the portfolios had to be sold at high discount, and some projects had become distressed.

The situation was particularly critical when the 2007-2008 crisis hit the country. Emerging budgetary problems suggested that the potential fiscal risks of PPPs were significantly underestimated initially. PPPs were not well recorded by the government and information regarding projects were not transparent, while the regulatory framework in place created the illusion that the public investment, public expenditure and public debt were controlled.

Between 2008 and 2010, the amount of net charges to the government for PPPs more than doubled, reaching €1,128 million in the last year (Figure 10). As a percentage of GDP, these charges increased from approximately 0.3% in 2008 to 0.7% in 2010. In this context, it should also be noted that net charges in 2010 represented an increase of approximately 19% over the forecast amount.

Figure 10 – Evolution of PPPs net charges  
(Euro millions)



Source: Ministério das Finanças (2011).

The impact of the PPP charges on the general government account was approximately 0.9% of GDP in 2011, increasing pressure on public accounts. The road sector represents 80% of the total amount payable by the public authority to the private partner. This is followed by the health sector, which accounts for 16% of the total value of net charges. In 2011, the value of total future payments from the State to the private partners (before considering estimated income) is estimated in €26,004 million, representing approximately 15.1% of GDP (Ministério das Finanças, 2011).

Subsequently, the prudent management of PPPs contracts has been a key component of the negotiation with the IMF and the EU in 2011, when discussing the recovery program of the country from the financial crisis.

A new regulatory framework was adopted in 2012, which included the creation of a central PPP unit, the Unidade Técnica de Acompanhamento de Projectos (UTAP), which provides technical support on the launch, tender, monitoring and evaluation of PPPs. The proposals and feasibility studies must now be review and approved by the Ministry of Finance. The feasibility study is now a crucial step and the budget impact and fiscal affordability must be clearly evaluated. PPP tenders will only be launched following the required studies on their costs and benefits, and in full compliance with the PPP framework law. In addition, the country now applies not only the European System of Account but also reports quarterly and annually on budget and executed payments related to PPPs, providing also a comprehensive assessment of the fiscal risks stemming from PPPs and concessions (Irwin, 2012; World Bank, 2018).

In recent years, the government has taken major steps to reduce the risks associated with some PPPs. The UTAP now significantly enhances the MoF's oversight and control over 35 projects

that it monitors, providing detailed information and analysis. However, as noted by the IMF (2014b), improvements are still to be made. In particular, the new PPP framework law excludes a large number of PPPs and concessions from UTAP's mandate, for which little or no information is provided. The investments related to these concessions amount to about 60 percent of the total concessions in 2012. UTAP also is currently not responsible for monitoring PPPs by local governments and regions, although these concessions may create significant fiscal risks for municipalities

Overall, in Portugal there was the presence of fragmented accounting rules, that allowed for most PPPs to be kept off balance sheet. Government used them to anticipate spending and to sidestep the normal budgetary process. This process affected public finances much in the same way that off balance sheet vehicles helped banks to elude capital requirements and prudential regulation, with results that led to the financial crisis of 2008.

By establishing a solid institutional framework from the beginning, countries that are now just entering into PPPs can prevent many of the initial problems that Portugal encountered (Monteiro, 2008). Otherwise, far from the promises to resolve the countries' deficits in infrastructure, financing and management, a large number of poorly structured and managed projects can become an additional source of financial distress. Countries that exclude PPPs from normal budgetary discipline do so at their risk. Indeed, these complex, opaque and long term contracts often carry more, and not less, fiscal risk with respect to traditional procurement, and therefore require more, and not less, scrutiny, monitoring and limiting.

However, as is often the case with governments with scarce resources and high backlogs in infrastructure that adopt for the first time PPP projects, the accounting advantages will often come at expenses of value for money and long term sustainability. In this sense, the cases of Hungary and Peru are emblematic. An analysis of the Hungarian case can be found in Báger's article in Schwartz et al. (2008). The study reports several examples of how optimistic demand forecasts and extensive guarantees led to increase in both the national debt and the future national debt burden. The outcome is mainly due to lack of practical experience and professional unpreparedness. In particular, in such circumstances, policy makers must be aware that PPPs characteristically entail the possibility of waste and corruption, which primarily derive from short term interests inherent in the public authority's decisions and from the lack of expertise in the public sector. Information on the Peru case can be found in the IMF Fiscal Transparency Evaluation report 2014. In particular, IMF highlights how in the country 'the amount of PPP related liabilities reported in the balance sheet is small compared to the large

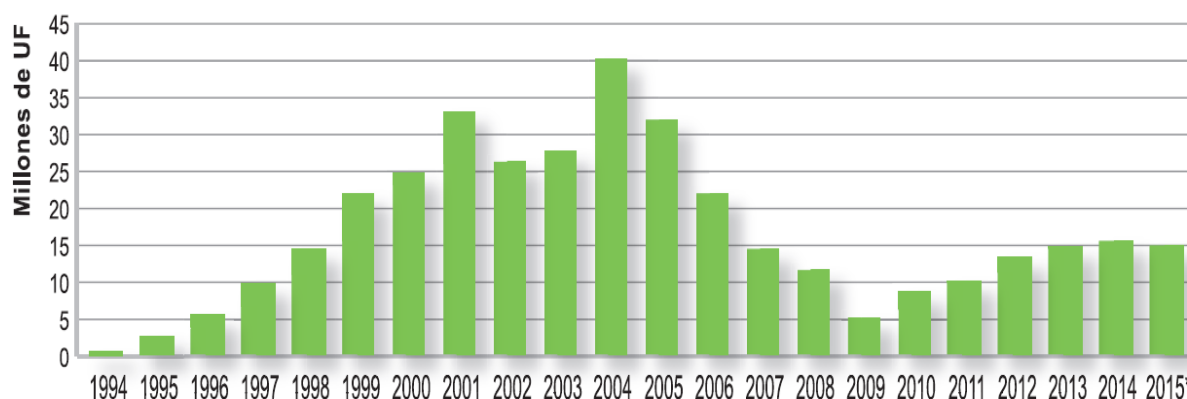
pool of projects under PPP contracts, and the estimated value of the potential liabilities is clearly underestimated’.

## 2.3 Chile

Chile has now a well established PPP program. The Chilean government began using concessions in the early 1990s to build and upgrade roads. The very first concession was awarded in 1993, for the construction of El Melón tunnel, near Valparaíso. Concessions for sections of the main North-South highway, Route 5, and for other inter-city roads soon followed. In the late 1990s, concessions were used to upgrade airports. More recently, concessions have been used to finance prisons, reservoirs, public buildings, and urban roads.<sup>19</sup>

The total cumulative amount invested through PPP schemes in the period between 1994 and 2015 amounts to more than \$16,000 million, or about 5.8 percent of current Chilean GDP. Figure 11 presents PPPs investments in Chile. The period of greatest growth has been between 1995 and 2005. In the first quinquennium of the decade, high levels of investments resulted fundamentally from highway development in the urban areas of Santiago. From 2006, PPP activity saw a decline, maybe due to higher requirements for concession contracts introduced with the reform of the regulatory framework.

Figure 11 – PPPs investments, 1994 – 2015 <sup>20</sup>



Source: Ministerio de Obras Pública (2016).

Most of the road and airport concessions contain a minimum revenue guarantee, which generally ensures that the operator will collect revenue with a present value equal to around 70

<sup>19</sup> Detailed information about PPPs in Chile can be found at <http://www.concesiones.cl/Paginas/default.aspx>.

<sup>20</sup> The UF is a unit of account indexed to inflation, elaborated by the Central Bank of Chile and used in particular for a financial transaction and valuation of real estate. Currently 1 UF correspond to 35,56 euro.

percent of the expected revenues of the project. The guarantees facilitate the company borrowing. In return for the minimum revenue guarantee, the concession firm enters into a revenue sharing agreement in which it consents to shares a percentage of revenue or profits with the government, once a certain threshold is exceeded.

In Chile the Ministry of Public Works generally takes the lead in designing, awarding, and monitoring concessions. The Minister of Finance must approve the concession contract and is involved in the design of the concession contract, its award, and any renegotiations of the contract. The Ministry of Finance approval is subject to Ministry of Public Work's analysis of projects' risks and economic and social benefits. In this way, Ministry of Finance ensures that the future fiscal implications of PPPs are consistent with medium term debt sustainability.

Chile has a sophisticated model for measuring and valuing contingent liabilities Compared with other countries, Chile's approach to managing contingent liabilities relies heavily on quantitative analysis. Since 2007, Chile's Budget Directorate of the Ministry of Finance has published an annual contingent liabilities report, which initially presented information on contingent liabilities from revenue and exchange rate guarantees for toll road and airport concessions and has since been expanded to cover other types of government contingent liability (Cebotari, 2008). The report on contingent liabilities discusses not only expected cash flows from revenue guarantees but also the variability of those cash flows.<sup>21</sup> Exhaustive descriptions of Chilean Ministry of Finance's model for measurement and valuation of government guarantees can be found in appendixes in Irwin and Mokdad (2009) and Hemming (2006).

In 2002, Chile adopted a fiscal rule requiring the government to run a surplus (currently 0% of GDP), which may influence the choice between concessions and public finance. According to the underlying accounting of the fiscal rule, a publicly financed investment initially reduces the reported surplus, whereas a concession initially leaves it unchanged. Thus, if the Chilean government were struggling to achieve the surplus required by the rule, it might prefer to use a concession to carry out an investment project. By contrast, when the government's fiscal position is stronger, the government might prefer to use public finance, to reduce the reported surplus and thus reduce pressure for other spending (Irwin and Mokdad, 2009). Compliance with the rule is strictly connected with the accounting rules in force in the country.

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<sup>21</sup> The annual reports on contingent liabilities can be found at <http://www.dipres.gob.cl/598/w3-propertyvalue-16136.html>.



Chile publishes PPP contracts and prepare financial reports according Chilean generally accepted accounting principles, which are accrual based but not as developed as International Financial Reporting Standards. Under these rules, some but not all PPPs are put on the government's balance sheet. For example, jails and airports were treated as public projects for accounting purposes, but roads were not. However, financial statistics are prepared according to the IMF's Government Finance Statistics Manual 2001. As seen in the first chapter, the IMF's manual provides for accrual accounting that generally requires public investments to be expensed over their lifetime, not as they are constructed. In Chile, however, traditional public investments in physical assets are expensed during construction. This means that public investment in a toll road would immediately increase government spending for the purposes of calculating compliance with the fiscal rule. By contrast, concessions have no immediate effect on government spending for fiscal rule purposes (Irwin and Mokdad, 2009). These arrangements reduce the measured deficit in the years in which investments takes place, but increase it later, compared with what would have happened if the government had financed the investment itself. In this context, it may be that the choice for PPPs is driven by the accounting advantages that facilitate compliance with a challenging fiscal rule.

Other issues with PPPs in Chile are related to a fairly large number of contract renegotiations and accumulated significant government exposure to PPPs. As with many PPP projects in the United Kingdom, on occasions requirements were dropped during the bidding stage and reintroduced after the concession was awarded, in so-called complementary contracts negotiated bilaterally with the operator. According to Engel et al. (2014), as of the end of 2007, the 50 concessions that the Chilean Ministry of Public Works awarded between 1993 and 2007 had been renegotiated 144 times. Most renegotiations were bilateral and involved substantial amount. Also, most renegotiations involved charges on future administrations. Of the \$11.3 billion invested in the concessions, \$2.7 billion was added after a renegotiation.

Despite these issues, Chilean experience with PPPs has overall been positive, driven by a solid institutional framework, well-developed procedures to identify, evaluate and tender projects, effective mechanisms to ensure adequate sharing of risks between the public and private sectors. Also, one of the main virtues of the Chilean concession program are reforms, that ensured the availability of private financing for projects, for example by dispelling the fears of expropriation and providing protection of creditor rights.

## 2.4 Australia: Victoria

The State of Victoria has been historically one of the most aggressive countries in Australia in the adoption of PPPs. There have been 32 PPP projects contracted in the State of Victoria, worth around A\$30.1 billion in capital investment. PPPs are mainly being used to deliver transport infrastructure (in particular the two big urban motorways City Link and East Link), schools, prisons, courts, convention centers, hospitals and water infrastructure.<sup>22</sup>

According to Irwin and Mokdad (2009), initially state governments in Australia adopted PPPs to increase investments infrastructure without having to report more debt. At the time, the Australian States experienced intergovernmental limits on state borrowing. Moreover, accounting standards in force at the time allowed the States to undertake PPPs without the need to recognize any liability. Over time, this motive for PPPs has diminished, since limits on state borrowing have been removed and modern accounting standards have been adopted that require governments to recognize contract related liabilities on their balance sheet when entering into PPP projects.

The State of Victoria has a well developed regulatory framework for PPPs, which is based on national PPP policy and guidelines and State of Victoria's specific requirements. Victoria's government have a key role in the governance of PPP projects. All the projects must have government approval at several stages of the procurement process (including approval of the PSC) and ministerial oversight in procurement and implementation phases. National guidelines consider the process that governments should follow to develop and award a PPP contract and discuss the risks that they generally should assume and those that they generally should not. Such policy allows to reduce the amount of risks born by the governments in PPPs projects, thus minimizing also their contingent liabilities.

PPP project costing and budgeting are prepared in the same way as they would be if the project were procured using any procurement approach for what concern the investment decision. If PPP procurement is approved for a project, then the budget treatment differs from other procurement approaches. When a project is approved as a PPP procurement, the estimated liability and any government capital contribution will be reflected in the budget and forward estimates. The operating, maintenance and lifecycle components of the service payments are reflected in the operating statement (Department of Treasury and Finance, 2016).

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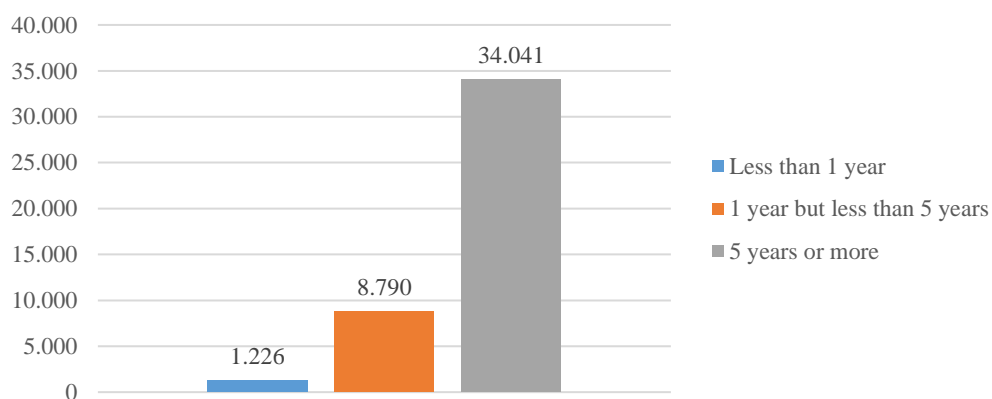
<sup>22</sup> Extensive information about PPPs in Victoria, policy and guidelines can be found at <https://www.dtf.vic.gov.au/infrastructure-investment/public-private-partnerships>.

Unlike government in Chile, Australian governments publish financial reports according to modern accrual accounting standards, specifically Australian equivalents to International Financial Reporting Standards (IFRS). In particular Victoria has adopted the IFRS interpretation for PPPs accounting since 2007, before United Kingdom. Many PPPs are on the government’s balance sheet. PPPs not on the government’s balance sheet are those in which the project company is considered to bear most of the project’s risks, including the City Link and East Link toll roads.

The Australian Accounting Standards Board has recently issued AASB 1059 *Service Concession Arrangements: Grantors*, which will be operative for reporting periods commencing 1 January 2019 (Department of Treasury and Finance, 2019). Prior to the issuance of AASB 1059, there was no definitive accounting guidance in Australia for PPPs in which the State grants to the operator the right to collect fees from user of the PPP asset. The newly adopted standard is based on IPSAS 32. Under the new reporting rule, the grantor recognizes the right to receive assets at termination of such concession arrangements on its balance sheet. For some PPPs projects this will result in an earlier recognition in the government’s balance sheet with respect to previous rules.

For contracts whose liabilities are not recognized in the balance sheet, future expenditure is disclosed as commitments in notes to the financial statements. According to the 2017-18 Financial Report (Department of Treasury and Finance, 2018), these expected commitments on PPPs correspond to a nominal value amount of A\$44 billion, most of which are to be paid in 5 years or more (Figure 12).

Figure 12 – PPPs commitments payables (nominal value, A\$ million)



Source: Department of Treasury and Finance (2018).

The State of Victoria also has good disclosure practices. Project summaries of all PPP projects are published in the government's website within 60 days of financial close, including information about projects objectives, scope, procurement process, parties involved, value of the project and cost to government and commercial risk allocation.

## Chapter 3

### The Italian experience

Italy started adopting PPPs relatively late with respect to other European countries such as United Kingdom and Portugal. Initially, PPPs were introduced in Italy in order to meet the urgent needs of the public sector to find a sustainable way to construct or renovate infrastructures, since traditional public finance was not sufficient to satisfy the national demand for such projects. With time PPP arrangements have acquired importance and in 2016 they represented 53% of the value of total public works. However, PPPs implementation in Italy is still lacking structured procedures and technical expertise. In turn, this has contributed to significantly jeopardize the PPPs efficiency and effectiveness.

#### 3.1 PPP projects in Italy

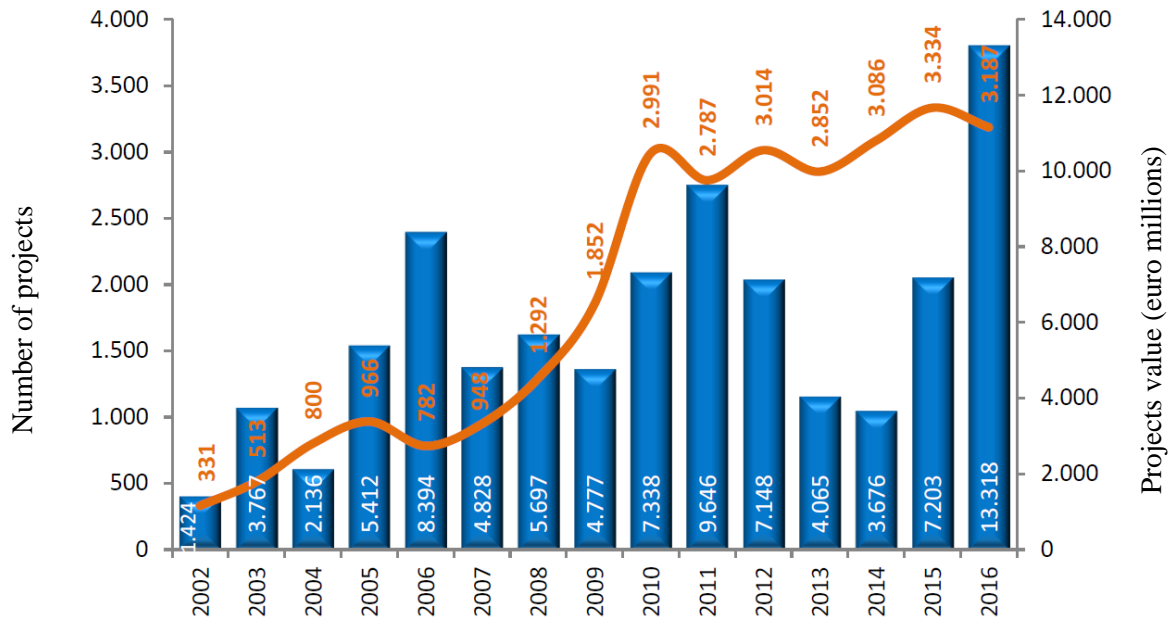
Project finance has been first introduced in Italy in 1998.<sup>23</sup> In the following years, Italian legislation has been amended several times in order to encourage and regulate private participation in the realization of public works – most recently with the adoption of the new Public Contracts Code (Legislative Decree n. 50/2016), implementing Directives 2014/23/EU, 2014/24/EU and 2014/25/EU, and its subsequent amendments.

Italy began to develop its experience with PPPs in the early 2000s. Over time PPPs acquired importance in the country and now Italy counts 29,000 processes in existence, that is awarded projects and tenders in the process of being awarded, for a total amount of nearly 90 billion euro. Awarded projects counts for less than 8,000 of all the processes in existence (about the 27%). From 331 initiatives in 2002, the period between 2010 and 2016 saw a yearly average of about 3,000 initiatives. In terms of awarded contracts, from 94 contracts in 2002, the period between 2010 and 2016 saw a yearly average of about 722 contracts, for a value of about 5.1 billion euro (an average value per contract of 7 million euro) ([Figure 13](#) and [14](#)).

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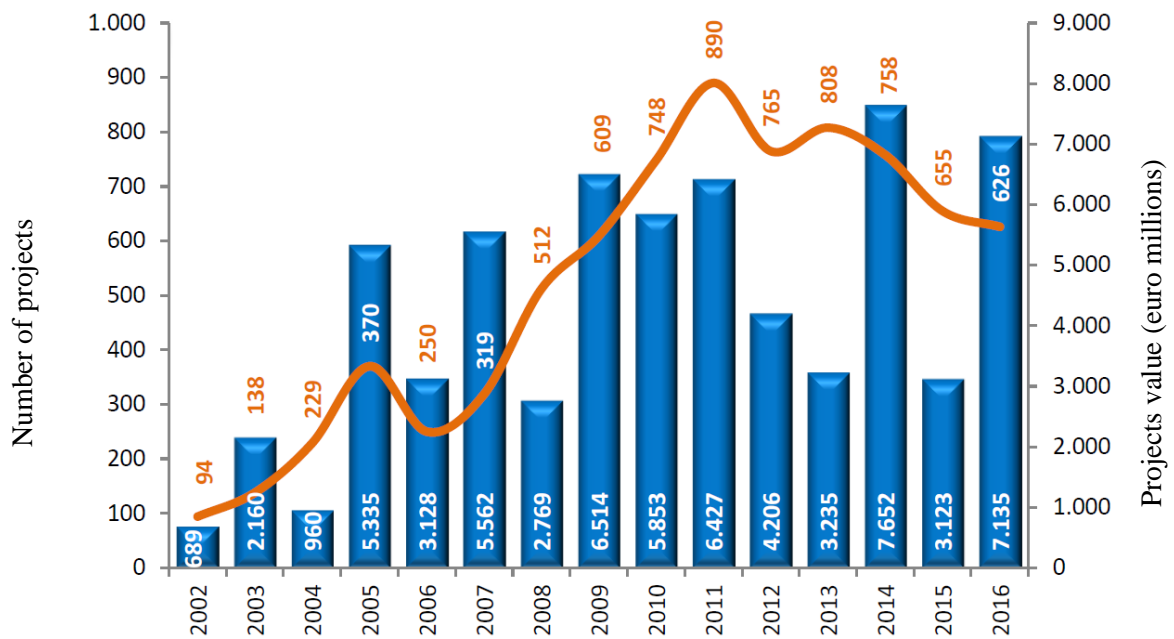
<sup>23</sup> With *Merloni-ter law*, that amends the Law of Public Works, *Merloni law* n. 109/1994.

Figure 13 - PPPs tenders, 2002-2016



Source: CRESME (2017).

Figure 14 - PPPs contracts awarded, 2002-2016



Source: CRESME (2017).

As shown in [Figure 13](#) and [14](#), both the number of PPP tenders and of awarded contracts in Italy have been increasing. This is particularly accentuated in the period between 2006 and 2010. Considering the total value of tendered projects, peaks in value can be seen in 2006, 2011 and 2016. For 2006, these are related to two big transport infrastructure (the highway Pedemontana Veneta for 2.2 billion euro and the line 4 metro in Milan for 1.7 billion euro) and

the water system in Sicily for 1.8 billion euro. 2011's peak is mainly due to investments in roads infrastructure in Rome. In 2016 few big investments were made in water and energy infrastructure.

Since 2008, PPP arrangements have been used extensively also for the delivery of small and medium infrastructure and services in various sectors by municipalities. Overall, PPP projects in Italy have been adopted by about 50% of municipalities between 2012 and 2016. Municipalities mainly used PPPs to deliver leisure centers, car parks, but also water and energy networks and waste and cemetery services.

In particular, municipalities represent in Italy the biggest portion of PPPs' client, counting for 81% of the demand of PPPs by number in 2016. Since they typically engage in small or medium size projects, their incidence on the demand of PPPs by value is smaller (equal to 31% in 2016). While the use of PPPs by municipalities has increased over time, their total investment in public works decreases in the same period. Decrease in municipalities' public procurement may be caused by public finance constraints and tight fiscal rules (Fondazione IFEL, 2017). In this context, the recourse to private finance may be due to increasing efficiency or to convenient accounting treatment.

In any case, in Italy any public authority may be a PPP procuring authority. Article 38 of the Public Contracts Code has innovated the legislation regarding procuring authorities, introducing a qualification system that will be managed by the National Anti-Corruption Authority. The system will be based on the possession of specific requirements and the relevant public authority for each PPP project will be identifiable with reference to the powers awarded to it by the legal framework. A list would include, but not be limited to, the central government and the regional and local administrations, peripheral offices of the central government, national health service bodies, ANAS (motorways) and Rete Ferroviaria Italiana (RFI) (railways).

The wide spread of PPP contracts in Italy has not been accompanied by a similar growth in technical and planning quality. This is evident if it is considered that of a total of about 33,164 tenders reported between 2002 and 2016, 4,429 tenders, or the 13%, is concerned with interrupted processes, that is canceled tenders, deserted and un-awarded tenders and revoked awards (in terms of value these represent 35% of all the tenders) (CRESME, 2017). Moreover, due to the need to plan interposed works and various approval obligations, even before work begins, there are long time periods between the appointment of the winner of the public tender and the competition of the final and executive plan (between two to six years). While part of

these numbers is physiological, part is due to lack of competences in the procuring authorities and lack of technical knowledge in the formulation of tenders and in contract management. This constitutes a critical issue of Italian PPPs. In particular, there is need for technical expertise, standardized models and a centralized unit providing assistance to local authorities. Pre-prepared clauses to be negotiated by the parties would favor a clear and efficient allocation of risks and the bankability of PPP projects, while also reducing information asymmetries between the parties. Standardized contractual clauses would also play a role in preventing the use of PPPs as a tool to circumvent spending ceilings and fiscal rules (MEF, 2015).<sup>24</sup> Moreover, frequent litigations create a number of impediments to the efficient functioning of PPPs. For instance, because of frequent litigations over the appointment of the contractor, it takes longer to award project finance contracts – according to MEF, between one and seven years – with respect to public contracts, and to complete ‘double tenders’. There is also a high percentage of projects that, once awarded, fail to reach financial close within the required time. As a consequence, either the project comes to a standstill or the works are completed in a piecemeal fashion, thereby exposing the public partner to subsequent litigation. This leads to increases in the cost of the works and results in expensive amendments to the business plan.

With regard to average award times, this varies depending on the size of the project. Average award times is the time that intervenes between the date of publication of the tender and the date of award of the contract. For projects up to 5 million euro, the average award times in the period 2002-2016 is 132 days, while it is 283 for projects above 5 million (CRESME, 2017). However, no information is provided for traditional public procurement to allow a comparison.

Another critical issue when dealing with Italian PPPs regards the risk transfer to the private partner. As seen in the first chapter, properly identifying and allocating risks is essential in order to effectively undertake PPPs that deliver value for money. In this sense the public authorities should only transfer to the private sector those risks that the private is better able to minimize in terms of the likelihood of its occurrence or of the negative economic impact arising from such events. The Ministry of the Economy and Finance (MEF, 2015), based on an analysis of past experience and data from the institutions that monitor this field in Italy, highlights some of the main problem per type of risk.

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<sup>24</sup> A draft of standard agreement can be found at [http://www.mef.gov.it/documenti-allegati/2015/Paper\\_24\\_novembre\\_2015\\_-\\_25-11-15\\_Finale.pdf](http://www.mef.gov.it/documenti-allegati/2015/Paper_24_novembre_2015_-_25-11-15_Finale.pdf). This is a text from a public consultation of the State General Accounting Department (RGS).



With regard to construction risk, this is very rarely transferred to the operator: almost always the agreement allows for variations during the construction in cases provided by law, determining adjustments in the business plan. In the case of variations worth more than 20% of the original value of the work, a separate contract is signed giving the operator the additional right to not comply with the demands of the grantor or not to carry them out. Even cases of force majeure are not always contractually limited, and in such cases the private is entitled to revise and alter the original business plan.

For what concern availability risk, analysis of transactions has revealed a partial transfer of availability risk to the private party. For projects where the private party builds and manages the infrastructure in return for payments made by the public authority, when the penalties are provided for in the contract, they are sometimes not automatic or effective, and sometimes no clauses for the termination of the concession are included or introduced, even in the event of poor quality of the service provided.

The allocation of demand risk varies, mainly depending on the compensation scheme to the private party. If the main source of revenues for the operator are user fees, demand risk is transferred entirely to the private party (the agreement does not provide for any guaranteed payment for minimum traffic levels and always provide for the sharing of any extra profits). If the main source of revenues are government payments to the operator, there is always a minimum threshold at which the grantor intervenes to rebalance the business plan in case of less than forecasted user demand.

In order to avoid the risk of reclassification of projects from off balance sheet to on balance sheet, public authorities should perform a sound *ex ante* valuation of cost and benefits associated with the partnerships, also comparing it to other public procurement procedures. This would at the same time improve control over public accounts. However, historically Italy lacked this assessment. Indeed, only rarely the government first decided on the procurement of an asset before it chose the mode of procurement (PPPs or traditional provisions) (Burger and Hawkesworth, 2011). From 2008 public authorities willing to undertake a project finance transaction must prepare a feasibility study. This document contains technical and economic tests that, through checks on technical feasibility and economic and financial sustainability, can identify a real ‘business case’ for going to tender as a way to generate value (MEF, 2015). In addition, the feasibility study must also include an analysis of possible alternatives to the solution identified. However, before starting a procedure for selecting the promoter or operator, public authorities didn’t used to perform a thorough assessments to ensure greater efficiency and lower costs compared to a traditional contract, limiting themselves to qualitative audits,

and failing to apply the value for money approach. A structured methodology for establishing the value for money of PPPs with respect to traditional public procurement has been required by the regulatory framework only more recently. In this regard, the article 181 (3) of the Public Contracts Code provides for the use of comparative tools to verify the convenience of recourse to forms of PPP as an alternative to direct realization through normal procurement procedures. The choice of the procedure includes an appropriate inquiry with reference to the analysis of supply and demand, sustainability, socio-economic analysis, nature and intensity of the various risks involved in the operation, use of evaluation techniques. The choice of intervention implementation model between PPP or traditional contracting also include the analysis of the following aspects: the presence of a legal and regulatory framework compatible with the intervention method, the essence of risk transfer to the private party, the organizational capacity and the know-how of the public administration undertaking the PPP, the opportunity to structure incentive-creating payment system and to set tariffs on services.

In order to monitor the risk transfer during the execution of the contract, the Italian Anti-Corruption Authority's guidelines concerning the monitoring activities of the public authorities on economic operators in PPP contracts has been approved on the 28<sup>th</sup> March 2018 (ANAC, 2018). In particular, the Guidelines specify the minimum contents of the conventions and provide that the contract shall also include provisions concerning the Service Level Agreement (SLA), with the definition of the level of quality that the private party has to guarantee and the provision of penalties and reduction in fees in the event of non-conformity. To ensure the respect of the legal framework and the correct management of the PPP contract, public authorities are required to obtain a period economic-managerial report on the execution of the contract. In case of modifications or revisions of the economic-financial plan, the public entity is entitled to verify that the allocation of risks set out in the tender documents has not been altered.

In Italy the regulatory framework doesn't provide for the inclusion of PPPs in the national public investment system or medium term budgetary framework. While in theory it is prescribed the need of consistency of PPPs with other public investment priorities, in practice a specific procedure is lacking in this aspect (World Bank, 2018).

Other issues are related to political uncertainty and frequent changes in policy and administration. Finally, since partnerships usually concern complex transactions, they typically involve a small number of experts working in the field. This causes a lot of mistrust towards such transactions from awarding authorities, causing problems in awarding contracts and low bidder participation (MEF, 2015).

### 3.2 The institutional framework for PPPs in Italy

With regard to the institutions responsible for PPPs management, development and regulation, Italy has no single PPP Unit anchored in the Central Budget Authority. Planning, *ex ante* and *ex post* financial assessment, monitoring and supervision of PPPs are split between different institutions. In particular:

- The State General Accounting Department (RGS) of the Ministry of the Economy and Finance (MEF) is responsible for fiscal control, including the monitoring of government investment expenditure. In this context the RGS is responsible for recording expenditure for public works in its own database; coordinating the development of standardized contracts; coordinating the monitoring of the current state of existing PPPs; examination and financial approval of legislation on infrastructure.
- The Italian National Statistical Institute (ISTAT), Central Department of National Accounting, Public Finance Service, is responsible for calculating and publishing statistics on the budget deficits of the public authorities. ISTAT is also responsible for assessing the correct classification of PPP contracts and consequently their impact on the deficit under Eurostat rules.
- The Italian National Anti-Corruption Authority (ANAC) is responsible for preventing corruption and ensuring transparency in the public sector. To this purpose, the supervision, control and regulation of public contracts are attributed to the ANAC. With regards to PPPs, ANAC has responsibilities for the monitoring of the regularity of the procurement procedure; the compliance with principle of equal treatment, non-discrimination, transparency, free competition, cost effectiveness and efficiency; the performance quality; the contract execution; the system for classifying economic operators. In addition, it reports to the government and parliament and exercises sanctioning powers.
- The Department for Planning and Coordination of Economic Policy (DIPE) (part of the Presidency of the Council of Ministers) fulfills the mandate of facilitating PPP programs. Its competences in the field involve promoting the PPP models; assuring free counseling to public administrations through the provision of technical, legal and financial assistance services at all stages of the proceedings; supporting to the Ministry of Infrastructures and Transport (MIT) and Transportation and the Interministerial

Committee for Economic Planning (CIPE) (Comitato Interministeriale per la Programmazione Economica)'s decisions regarding PPP contracts for most important infrastructures; data collection and monitoring for the estimation of the impact on the public budget (deficit and debt) of PPP operations; the activation of collaborative relations with institutions, including at international level, bodies, and associations active in the fields of interest on PPP. Additionally, DIPE assesses the agreements and business plans for key infrastructures and tax relief measures and tax credits; and advises on approval of planning contracts and agreements between state and private operator.

In Italy the Ministry of Finance or the Central Budgetary Authority don't approve the PPP project before launching the procurement process or before signing the PPP contract. Instead, pursuant to the new Public Contract Code, the MIT and the CIPE's approvals are required for strategic infrastructure projects before the launch of the procurement process (no further approval is required before signing the PPP contract).

### **3.3 PPPs in national accounts**

As in other countries with high public debt and deficit, PPP schemes may be attractive but also present significant risk. Indeed, as seen in the first chapter, despite being financed by the private sector, PPP projects always fall substantially within the scope of the public sector.

Italy operates a system of *ex post* assessment of partnership contracts for classifying infrastructure as 'off' or 'on' the national accounts (MEF, 2015). The institution in charge of making the assessment is the Italian National Statistical Institute (ISTAT), which, as part of its functions, classifies PPPs in order to estimate their impact on government deficit and public debt. ISTAT's assessment plays an important role in the correct classification of contracts in the national accounts, directly influencing their impact on the budgetary balances. Following the assessment, it may happen that a PPP project initially recognized as an off balance sheet investment, later turns out to be sustained *de facto* by the public authority, being reclassified on the public balance sheet, resulting in higher spending and negatively impacting public aggregates. The criteria used by ISTAT to decide whether or not an asset involved in a PPP project appears on the government books are based on Eurostat rules. As described in chapter one, based on Eurostat criteria, the crucial factor for the classification of PPP transactions in the institutional sectors of the national accounts is related to the identification of how risks are allocated between the private and the public party. If the majority of risks are allocated to the private sector, investment cost and bank financing will be reported on its accounts.

ISTAT monitored twenty-four concession contracts from 2010 to 2014. Monitored contracts regard PPPs projects for the realization and management of public works or public utility works, where the public authority is the main buyer of the services offered through the PPP asset. This approach is in line with Eurostat definition of PPPs, which considers only projects in which the majority of revenues to the private partner derive from government's payments, irrespective of whether the demand originates directly from government itself or from third party users (see paragraph 1.3.3). The total value of monitored contracts is approximately 4 billion euro. The balance sheet assessment of the twenty-four contracts is mainly based on the analysis of risk allocation between parties, according to Eurostat rules ESA 2010. The analysis performed by ISTAT shows that:

- seventeen contracts are on the public party's balance sheet. These contracts involve a substantial transfer of risks from the private sector to the public sector, therefore they count towards government investments. The value of these transactions amounts to 3,500 million euro. The reclassification of such contracts has led to an average annual increase in additional investment from 2005 to 2013 of around 110 million euro;
- seven contracts are off the public party's balance sheet. In these contracts no substantial transfer of risks to the public authority can be identified, therefore they don't appear in government accounts. The value of these contracts is 500 million euro.

The total public contribution associated to the monitored contracts amounts to approximately 2,200 million, of which around 95% is allocated to on balance sheet investments.

However, the data cover a little sample of government funded projects of high value. Aggregate data for all the existing contracts is difficult to obtain and the above analysis could not be representative of the whole picture of Italian PPPs. In particular, big and complex government funded projects are more likely to involve sharing of risk with the public authorities and on balance sheet reporting.

Overall, PPPs developed in Italy slightly late with respect to other European countries. However, since their introduction they have affirmed themselves as a way to deliver bigger and smaller public infrastructure projects and have been adopted extensively, in particular from Italian municipalities. Still, Italy encountered several issues in the implementation of PPP schemes, in particular for what concern the risk allocation and the lack of technical expertise from the public authority, but also problems related to frequent litigation and to frequent regulatory changes. These issues resulted in significant part of the total tender processes going interrupted and, for those not interrupted, in longer awarding period. In recent years Italy

improved the PPPs regulatory framework to address its deficiencies. The process involved the adoption of the new Public Contract Code, bigger emphasis on the methodology to assess value for money in PPP contracts, a reform in the role of the DIPE with higher consideration to the function of counseling, assistance and promotion in the field of PPPs. For what concern the reporting of PPP transactions in national accounts, the position of Italy has not changed since 2004's Eurostat decision. Assets related to PPP transactions are accounted for according to Eurostat rules, which results in on balance sheet treatment of projects whose majority of risks and rewards are incurred by the government.

## Final considerations

It is worth mentioning that in 2018 the European Court of Auditors issued some recommendation in its special report ‘Public Private Partnerships in the EU: Widespread shortcomings and limited benefits’ (ECA, 2018). In particular, the ECA is highly critical with regards to PPPs, stating that they harness both the public and the private sector and are not always effective in achieving their expected benefits. Accordingly, PPPs are used to provide goods and services conventionally supplied by the public sector, while easing the tight budget constraints on public spending. ECA’s survey found that despite PPPs have the potential to achieve faster policy implementation and ensure good maintenance and service standards, the audited projects were not always effectively managed and did not provide adequate value for money.

Potential benefits of PPPs compared to traditional procurement methods are related to efficiency gains that derive from bundling of construction and maintenance, sharing of risk and costs optimization with a whole-of-life perspective, better maintenance and service levels and combination of the public and private expertise. However, ECA states that such promised benefits were often not achieved in the audited projects. In particular, PPPs share with similar traditional projects considerable inefficiencies, in the form of delays during the construction, major cost increases and under-utilization. Such inefficiencies often result in higher costs to be borne by the public sector. These ineffective spending frequently is also due to the lack of adequate analyses, strategic approaches towards the use of PPPs and institutional and legal frameworks.

Most of the difficulties encountered with PPPs implementation are linked to the financial crisis and to lack of experience in the public partner, which lead to negotiating poorly prepared projects, resulting in premature and insufficiently effective contracts with the private operator. In this context, prospective analyses were based on optimistic scenario regarding future demand and use, resulting in projects effective rate of use very different, above or below, with respect to forecasts. Most important, often the choice of PPP is not based on any prior comparative analysis of alternative options, such as public sector comparator. In this context, PPPs fail to demonstrate that they are the option that maximizes value for money and public authorities

don't demonstrate to protect public interests by ensuring a level playing field between PPPs and a traditional procurement.

Moreover, inappropriate allocation of risks between public and private partners may lead to incoherent and ineffective high remuneration rates on the private partner's cost of capital. These high rates may not always reflect the risks borne by the operator and may harm the value for money of the project.

Overall, it can be said that implementing successful PPP projects requires considerable administrative and technical capability. For this reason, effective PPP investments can be ensured only through a suitable institutional and legal framework and extensive experience in the implementation of PPPs. However, these are currently available only in a limited number of countries. Having only few countries with consolidated experience and expertise in implementing successful PPP projects risks mining the potential of PPPs to deliver costs reduction and increased efficiency.

While some countries provided a clear regulation for PPPs, specifically United Kingdom and Victoria in the cases analyzed in this work, in other countries PPPs were implemented without a centralized program. In these last countries PPP contracting has been fragmented, characterized by policy discontinuities, legal loopholes and opportunistic behavior. These are the cases of Portugal and Italy, where a widespread use of PPPs wasn't accompanied by solid competence by the public authorities and by adequate regulatory framework. Even in countries with more advanced experience with PPPs, such as United Kingdom, fragmented auditing framework among different government departments may lead to different management and treatment of PPP contracts.

PPPs in the Italian context require important reflections because there isn't a high level of collaboration between private and public actors, for many reasons. For example, one of the main causes is represented by a very low level of preparation of local offices and the consequent difficulties of public local actor to manage the partnership.

Current accounting rules for PPPs risk adding opaqueness to its use by governments. The most contentious issue regards the classification of the PPP related assets and liabilities, and in particular whether they have to be recorded on the government or on the private partner's balance sheet. There are essentially two options. PPPs can be on the government's balance sheet in a way similar to traditionally procured projects. In this case the PPP asset is treated as a public investment that generates an increase in government debt and therefore has an impact for what concern compliance with the Maastricht criteria. In the second case PPPs are recorded



off the government's balance sheet. In this situation the investment costs are shifted from the capital budget to the annual operating budgets for future years. The advantage is that the share of debt relating to the PPP is not taken into account for purposes of compliance with the Maastricht criteria.

Without a common standard for PPP accounting, the most used frameworks by governments has been analyzed. IPSAS 32 represents a standard that may be adopted by governments that use accrual accounting for their financial accounts. Based on the control criterion, most of the times it requires PPP assets to be recorded on the governments' balance sheet. There are then statistical standards that are used to make up summary statistics on the state of a government's finances. The governments' financial statistics are intended to be internationally comparable and follow regional or international standards. Eurostat rules ESA 2010, applied by all European Union countries, are used to determine the national accounts, on which basis the main public expenditure aggregates are expressed, including debt and deficit measures used to determine compliance with the Maastricht rules. In particular, Eurostat rules require the PPP assets to be reported on the balance sheet of the party which bears the majority of risks and rewards associated with the project. As described in the first chapter, under this rule most of PPPs will be recorded on the operator's accounts.

The adoption of the accounting standards varies widely across countries, since accounting rules are in the end determined by the national legislation and the national regulatory framework. This, in addition to the fact that disclosure of information on current PPP contracts is generally fragmented, makes it difficult to perform an accurate analysis and comparison of the experience among different countries.

A lot of consideration is addressed by governments to the possibility of recording PPP projects as off balance sheet items, and this practice may risk undermining value for money and transparency. In particular, the European accounting framework may incentivize member countries to use PPP for enhanced compliance with the Maastricht criteria. There is, especially, an inherent risk that the distribution arrangements will be influenced by the preferred statistical treatment rather than by the principle that risks should be borne by the party that is better equipped to manage them and maximize value for money. In general terms, recording a PPP asset on the government's accounts can ensure a more level playing field between the different procurement options, guaranteeing that the procuring choice relies solely on value for money considerations.

Often, when the PPPs are recorded as off balance sheet items, it is not required to budget for their full costs upfront at the time the commitment is made, and annual charges are only recognized several years after the project's approval, at the end of the construction. In this case any statement of expenses related to the PPPs is greatly delayed and appears well after the key decisions are made. Public authorities may therefore scrutinize PPPs less carefully than they do with traditional contracts, as capital costs for the latter are budgeted upfront and they must compete with other projects for a limited pool of funding. Moreover, public partners often rely on the scrutiny made by lenders, who may have very different objectives.

In addition to often reporting PPPs projects off the balance sheet, governments rarely publish reliable and easily accessible databases on PPPs contracts showing the public authorities' commitments for the future years. This behavior reduces the level of transparency in information provided to the public concerning the long term PPP commitments and their associated liabilities, and therefore also their implications on the debt and deficit levels in the country.

A weak regulatory framework, together with accounting rules that create debt hiding incentives, may lead the public authorities to contracting PPPs in the wrong circumstances – that is when they don't improve operating efficiencies and harm value for money. In the shorter or longer period, this creates significant fiscal risk. Indeed, since PPPs generally involve large and complex transactions, they may have long term implications for future generations, and their selection requires especially robust analysis and justification. Good management practices envisage performing comparative analyses between different procurement methods (traditional procurement versus PPP), in order to select the one that offers best value for money. In this sense, the United Kingdom has a solid experience in the use of the public sector comparator, and this is also becoming common practice for other countries. However, if the choice for PPP is taken without any prior comparative analysis to ensure a level playing field between different procurement methods, it is less probable that the PPP option is the one that maximizes value for money and best protects the public interests. Sometimes, even when the public sector comparator analysis is contemplated by the institutional framework, it is hindered by the lack of reliable data on costs and optimistic revenue levels forecasts, that in some cases cannot be matched by actual users and results in lower than expected effectiveness.

To be successful, PPPs require solid and comprehensive legal and institutional frameworks and processes. Moreover, the successful delivery of PPPs also depends to a large extent on the administrative capacity of the responsible authorities. However, only few countries have accumulated sufficient long-lasting experience and public sector expertise with the

implementation of successful PPP projects. In Europe the country with most experience in the field appear to be the United Kingdom, while considerable experience has been accumulated in France and Germany. At international level the best equipped countries are Australia, Chile, Uruguay, Philippines and South Africa.

Countries that are at the beginning of their experience with PPPs may find themselves weak equipped and with poor institutional framework, such that PPPs projects will more difficultly deliver the promised benefits. By establishing a solid institutional framework from the beginning, countries that are now just entering into PPPs can prevent many of these issues.

As mention, PPPs have several benefits and have the potential to deliver large public infrastructure and service with improved efficiency and effectiveness. However, countries that enter into PPPs must consider that such contract schemes involve committing to yearly payments for the construction, operation and maintenance of the asset, with long term implications for the governments' budgets and political decision making. In some cases, PPP contracts entered in positive economic period, with optimistic outlook for public finances based on rapid economic growth, may bind the government's actions in future years, especially if the positive expectations fail to materialize, for example because of an unexpected economic and financial crisis. In these cases, PPPs may seriously affect the sustainability of future budgets, leaving little space for fiscal flexibility and thus compromising the government's ability to adapt to emerging priorities or to fund urgent investments. This is similar to what happened in Portugal, as described in the second chapter, but also to other regions, such as Catalonia in Spain.

In order to mitigate the risk of a prejudicially favorable approach to the choice of PPPs and to promote greater transparency, countries that adopt PPP schemes should therefore make sure that there are in essence effective mechanisms that guarantee that the choice of the PPP option is justified by considerations related to value for money and it is therefore not simply influenced by considerations associated to the accounting and statistical treatment or to budgetary constraints. This means pursuing fairness and transparency in the accounting classification of PPP transactions.

At institutional level, attention to the correct classification of PPP transaction has been given by a more recent Guide on the Statistical Treatment of PPPs (EPEC, 2016), elaborated by Eurostat and EPEC. The Guide makes an effort to address the main problems encountered in the treatment of PPPs in national accounts on the basis of Eurostat rules. In particular, the Guide stresses that PPPs are undertaken on the basis of value for money, an appropriate allocation of

risks and operational efficiency, with a particular eye on affordability and long term fiscal responsibility.

The analysis of the best practices adopted by countries with more experience with PPPs and of the issues encountered by other may give insights when countries need to improve the management of current and future PPP contracts. Publishing periodic data on PPP projects, including sufficient and meaningful information on the assets financed, their future commitments and their balance sheet treatment, is one of the main ways through which countries can improve transparency. Also publishing signed contracts, while preserving the protection of confidential and commercially sensitive data, is a good starting point to promote transparency and control.

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