Public-Private Partnerships and Government Debt

Holger Mühlenkamp[1]

Introduction

Public-Private Partnerships (PPPs) are a special form of public procurement that, under specific circumstances,[2] could be appropriate for realizing efficiency gains in the provision of public goods or services. On the other hand, due to current rules pertaining to public sector accounting and public finance statistics in most countries, PPPs can be used to hide public debt. In view of the perceived or actual deterioration of infrastructure in many countries, and considerable constraints on public budgets, there is a great temptation for politicians (and societies) to use PPPs not as an instrument to improve public procurement, but as a measure to circumvent budget restrictions.

For example, the statistical office of the European Communities (Eurostat 2004, 11) states: *"Normally, an important aim of government's long-term partnerships with non-government units is to avoid immediate capital expenditure, and related borrowing"*. Not surprisingly, PPPs tend to be more common in countries where governments suffer from heavy debt burdens,[3] and PPP contracts are sometimes concluded even when conventional procurement seems to be economically advantageous (e.g. House of Commons 2011, Rechnungshöfe 2011). The "price" for the latter policy is, compared to conventional public projects, inefficiency and higher financial burdens in the future.

In this paper, we begin with an analysis of the current rules of government accounting and statistics. In a second step, we present some suggestions to improve these rules in a manner that will prevent the misuse of PPPs; and finally, we conclude with a short discussion.

PPP and government accounting and statistics

Firstly, to understand the issues related to PPP and government accounting (i.e. financial accounting) and statistics (i.e. national accounts), we have to look at the (different) cash flows of traditionally financed public projects and privately financed PPPs. In a next step, we consider how assets and financial obligations (debt) are captured in business accounting, which provides the guidelines for government accounting in the accrual accounting style. Subsequently, we describe the treatment of PPPs in national accounts. Lastly, we present several proposals for improving government accounting and statistics. These aim specifically to reduce or remove the disincentives that exist in current accounting and government statistics.

Cash flows of traditionally and privately financed projects

Traditionally financed projects result in high public sector payments in the early stages of the project and low payoffs in subsequent stages. By contrast, PPP-financed projects shift payments of the public sector to later phases. Figure 1 (similar to Funke, Irwin and Rial, 2013, 8) offers an illustration of this phenomenon. To isolate the effect of time shifting from other effects we consider a stylized case, ignoring differences in interest rates and efficiency.

a) If the project is government-funded then traditional financing (TF) in our example requires, for example, one million EUR in period zero. Under a PPP-contract the government has annual outlays of 100,000 EUR in years one to year ten instead. Therefore, under PPP contracts, the government books show no expenditure (and no related deficit and debt) in period zero. The expenditures appear only at the moment when the government starts to make payments. This always holds in a cash accounting style and, under specific circumstances, even in an accrual accounting style. Thus the described

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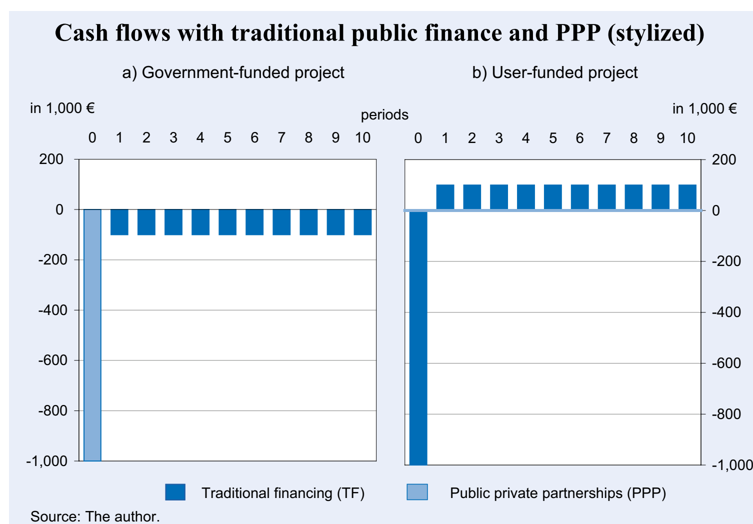
[1] German University of Administrative Sciences Speyer.

[2] The economic explanation of PPPs is strongly based upon theories of incomplete contracts (see e.g. Hart 2003; Iossa and Martimort 2012).

[3] See for example Hammami, Ruhashyankiko and Yehoue (2006). Buso, Marty and Tran (2013) deliver up-to-date empirical evidence from France. They contribute the finding to the literature that while debt hiding is a relevant motivation, it does not seem to be the only reason for conducting a PPP.

Figure 1



Source: The author.

mechanism offers a simple way to shift financial burdens or deficits and debt to the future.

b) If, instead, the project is user-funded, this means that users have to pay fees (tolls or the like) directly to the private contractor, meaning that the public budget is not liable for any payments. The project is virtually "invisible" in the public sector budget, accounting and accounts. Herein, the opportunity costs in the form of missing revenues in posterior years are also not visible in any way. This might be a reason why user-financed PPPs may seem extraordinarily tempting.

Before governments come to a decision about a PPP, they commonly have to evaluate the PPP against conventional project implementation. In project appraisal the discounted cash flow or present value usually serves as a decision criterion. The present value depends on the shape of the cashflows and the discount (interest) rate. Thus, it is no problem to construct PPP related cash flows with a present value higher than for conventional public projects (the present value of the cash flows usually has a negative sign).[4]

PPP in accrual accounting

Figure 1 makes it clear that countries with pure cash accounting may underestimate fiscal costs and risks arising from PPPs. For this reason we have to analyze whether accrual accounting offers a better, more complete picture. One important difference between cash and accrual accounting is the existence of a balance sheet in the latter case.

In this context the question arises as to whether the PPP related ("underlying") assets and debts have to be disclosed on the balance sheet of the relevant public sector unit or on the balance sheet of the private contractor. From the point of view of a politician who is interested in hiding government deficits and debt, a so-called "off balance sheet treatment" is desirable – meaning that the assets and debt of a PPP contract should not be on the government's balance sheet.

The roots of the treatment of PPP arrangements in government accounting and statistics can be traced back to business accounting for leases. Leases fall somewhere between straight acquisition and straight rent. Purchased assets (and the corresponding debt) must be accounted for on the balance sheet of the purchaser, whereas rented assets have to be accounted for on the balance sheet of the lessor. Leasing contracts basically combine elements of purchasing and elements of rent. Therefore it is necessary to decide whether the assets and debts related to these contracts should be assigned to the lessor or to the lessee.

For that purpose, in business accounting a distinction was developed between a finance lease and an operating lease. This differentiation is based on the referred to "risk and reward approach". In finance lease contracts, the lessee has all or most of the risks and rewards associated with the ownership of the leased asset. Operating leasing, by contrast, is characterized by the fact or assumption that the lessor bears the main risks and opportunities of asset ownership. In the first case the assets and debt have to appear on the balance sheet of the lessee. In the second case the assets and debt are attached to the lessor. The determination of these two types of leases is independent of legal ownership. Underlying this approach is the rationale that accounting should reflect the substance, and not the form, of a transaction ("substance over form").

While the risk and reward approach has been used in international accounting standards for several decades,

[4] Project appraisal is also vulnerable to manipulation. The audit courts in Germany, for example, frequently discover incorrect project appraisals (see for example Rechnungshöfe 2011).

considerable dissatisfaction has arisen over time (Heald and Georgiou 2011, 221). Under existing accounting standards the majority of leases are not reported on a lessee's balance sheet (IASB 2013a, 2). Therefore financial commitments and risks are not indicated therein and misleading information about the assets and leverage of lessees is given.

These shortcomings are the reason why the International Accounting Standards Board (IASB) initiated a project in 2006 to alter the current standard for leases (IAS 17). In the meantime the IASB has presented a new approach ("right-of-use" model) and, in 2013, a revised draft for a new accounting standard on leases (IASB 2013b). Within this approach there is no longer a differentiation between operating and finance leases and, in principle, all leases have to be included on the balance sheet of the lessee. Both assets and liabilities are to be initially valued at the present value of the lease payments. Thus we can expect the IASB to soon enact a fundamental new standard for leases.

Private sector leasing standards say nothing explicitly about PPPs and are not directed at public sector entities. This lack of guidance on PPP accounting, despite the growing international importance of PPPs, led the IFRS interpretations committee (formerly IFRIC)[5] to fill this gap in 2006 with the IFRIC 12 "Service Concession Arrangements" (IASB 2006). IFRIC 12 uses the criterion of control instead of the risks and rewards approach due to the aforementioned dissatisfaction with IAS 17 (see Heald and Georgiou 2011).

According to IFRIC 12 the economic, but not the legal ownership lies with the party that

a) "controls or regulates what services the operator must provide with the infrastructure, to whom it must provide them, and at what price; and

b) ... controls – through ownership, beneficial entitlement or otherwise – any significant residual interest in the infrastructure at the end of the term of the arrangement" (Heald and Georgiou 2011, 235).

If both these preconditions are satisfied, the PPP related assets will not be reported on the balance sheet of the private operator. Using the criterion of control, it is probably the case that most PPPs would not be categorized as private. For this reason, this approach will result in a significant modification of PPP classification.

But, IFRIC 12 is written exclusively for the private sector, meaning the gap regarding off balance sheet reporting persists for the public sector. Unlike private sector entities, public sector units could, for example, use the risk and reward approach, which would lead to the conclusion that PPP assets and debt belong to the private sector in an economic sense – the opposite conclusion to that provided by the control criterion. This would lead to arbitrage between different accounting standards and result in "orphan assets" and off-off accounting.[6]

This possibility was eliminated by the International Public Sector Accounting Standard (IPSAS) 32 (IPSASB 2011), which is very similar to IFRIC 12 and also applies the control criterion. IPSAS 32 covers government-funded PPPs as well as user-funded PPPs. Now the symmetry between IPSAS 32 and IFRIC 12 prevent the possibility of off-off balance sheet reporting (EPEC 2010, 23).

However, the international standards will have legal effects only if they are voluntarily adopted by national authorities as now in the UK. In reality, most countries deviate from international standards (Funke et al. 2013, 15). This means that the practical impact of the accounting standards on PPPs is very limited at the moment. This allows for gaming different accounting standards and hiding PPP assets und debt. Another important point is the fact that IPSAS 32 is not binding for fiscal accounting and reporting or national accounts. So there is a decoupling of IPSAS and the latter.

It should be noted that the European Community is trying to implement a harmonized public sector accounting standard. The aim of this activity is to improve the quality and the comparability of the fiscal data needed to enforce the growth and stability pact of the Eurozone member states. In this context the statistical office of the European Community (Eurostat) has verified and advocated the suitability of the IPSAS as a starting point for a Union-wide standard (EC 2013), now discussed under the headline-term "European Public Sector Accounting Standards" (EPSAS). Irrespective of the controversial discussion about the necessity and sense of such a costly standard for generating credible fiscal data, the adoption of the IPSAS control criterion for PPP classification would not be in line with the European System of Accounts (ESA 95). Thus Eurostat either has to adapt ESA 95 or to alter the IPSAS guideline regarding this

[5] The IFRS Interpretations Committee is the interpretative body of the IASB. According to the ISAB homepage *"The mandate of this body is to review issues that have arisen within the context of current IFRS and to provide authoritative guidance (IFRICs) on those issues."*

[6] In the UK there was indeed a real-world example of the absurd situation that enables an off-off balance sheet treatment of PPPs, resulting in PPP assets being displayed nowhere (see Heald and Georgiou 2011).

point at least. The outcome seems to be open at the moment.

PPP in national accounts

In the following, we focus our analysis of national accounts on two statistical standards. Firstly, we consider the International Monetary Fund's (IMF) Government Finance Statistics (GFS); and secondly, we examine the European System of Accounts (ESA 95).[7]

IMF Government Finance Statistics (GFS)

The Government Finance Statistics (GFS), issued by the International Monetary Fund (IMF), is a macroeconomic framework designed for compiling statistics required for fiscal analysis. This framework is described and commented upon in the IMF's Government Financial Statistics Manual (GFSM) 2014, which is an update of the GFSM 2001.

The IMF follows a risk and reward approach. As such, the economic (not legal) owner of a PPP's underlying assets and debt is considered the party that bears the majority of the project's risks and rewards. Some of the risks in acquiring the asset are determined by the degree to which the government controls the design, quality, size, and maintenance of the asset, as well as construction risks. Some risks associated with using the asset are supply and demand risk, residual value and obsolescence risk, and availability risk (IMF 2014, 333). It is assumed that the macroeconomic approach of the IMF is broadly consistent with IPSAS; thus GFSM 2014 and IPSAS 32 should usually have the same implications (IMF 2014, 333; Funke et al. 2013, 15).

Eurostat-rules for PPP accounting

The underlying conceptual framework for categorizing PPPs that is legally binding in the European Union is set out by ESA 95. ESA 95 constitutes the basis of the Excessive Deficit Procedure (EDP), defined by the Maastricht Treaty in Article 104, which is needed to constrain government deficits and the debt of the Eurozone member states.

Eurostat also issued a detailed guidance on recording PPPs in national accounts (Eurostat 2004, 2013). Herein, Eurostat applied a risk and reward approach similar to the above-mentioned IAS 17 treatment of leases in private sector accounting. The risk assessment of Eurostat concerning government-funded PPPs focusses on the following three main categories of risk (Eurostat 2004, 2; 2013, 270-285):

a) "Construction risk" (covering events such as late delivery, respect of specifications, and additional costs),
b) "availability risk" (covering volume and quality of output), and
c) "demand risk" (covering variability of demand).

If the private party bears a) the construction risk and b) at least one of the other risks (availability or demand), then the PPP related assets should be classified off the balance sheet of the government.

When the risk analysis based on these criteria gives no clear picture ("borderline cases") Eurostat reverts to additional criteria. These could be the clauses pertaining to the disposal of the PPP assets at the end of the contract, government obligations for maintenance costs, repayment of debt in the event of early contract determination, the nature of the private partner (its specialization either in operating leases or in finance leases), classification of the assets (dedicated assets, i.e. assets specifically-designed to supply the service), and so on. The assets and liabilities of user-funded PPPs are considered to be private by Eurostat unless the government finances most of the investment or provides a minimum-traffic or minimum-revenue guarantee to the operator (Eurostat 2013, p. 265).[8]

The Eurostat interpretation of risk and reward differs from that of the IMF and has been rightfully criticized by several authors as "weak" and of a purely "formal nature" (for example IMF 2004, 22; Heald and Georgiou 2011, 240–41; Funke et al. 2013, 15; Engel, Fischer and Galetovic 2014, 12). It is easy to align PPP contracts along the Eurostat criteria in order to obtain an off

[7] The overarching macroeconomic statistical approach is the System of National Accounts (SNA) 2008. This system was developed and released collectively by the United Nations, the European Commission, the Organization for Economic Co-operation and Development, the International Monetary Fund, and the World Bank Group. The most important difference between the GFS framework and the SNA 2008 is the focus of GFS on the impact of economic events on government finances – taxing, spending, borrowing, and lending - while the 2008 SNA focuses also on the production and consumption of goods and services. As a result, there are significant differences relating to the treatment of own-account capital formation and the degree of consolidation (IMF 2014, 4). This situation may explain differences between ESA 95 and GFS as well, because ESA 95 is harmonized with the System of National Accounts (Eurostat 2013).

[8] Eurostat draws a clear distinction between concessions and public-private partnerships. In the former case most of the revenue of the private partner comes from the final users (therefore termed "user-funded"). By contrast, under PPP contracts the majority of the revenue of the partner comes from the government ("government-funded") (Eurostat 2013, 264). This distinction differs from usual definitions of PPPs, which include concessions in Eurostat's vocabulary.

government balance sheet classification. The construction risk is to be transferred to the private partner in any case, and such partners typically have good opportunities to control this risk. Normally, the availability risk is also not a very demanding burden because this risk can be rather easily controlled by the private partner. In the end, the Eurostat decision actually creates an incentive to transfer the demand risk, inefficiently, to the private sector.[9] The user-funded variant of PPP, called a "concession" in Eurostat's terminology, could also easily be shaped to fulfill the off balance sheet conditions. Therefore, not surprisingly, experience shows that according to Eurostat's criteria, many, probably even most, PPP assets and related liabilities are recorded off governments' balance sheets (Funke et al. 2013, 15).

Improvement of government accounts to reduce or eliminate the bias in favor of PPP

Several recommendations have arisen to improve government accounting and statistics, and thereby to reduce the persisting bias in favor of PPPs. We can divide these proposals (following Funke et al. 2013, 18–24) into three groups: a) applying stronger tests for PPP classification in fiscal accounting or a general ceiling for PPPs, b) improvements in budgeting for PPPs, and c) requiring supplementary information about PPPs in financial and fiscal accounting.

Improvement of the classification of PPPs

Deficit and debt caps are usually set by "headline fiscal indicators" like fiscal deficit and debt (analogous to the Maastricht treaty). Therefore, a self-evident proposal is to introduce an unbiased classification of PPPs in order to prevent any unjustified exclusion of PPPs from coverage within these indicators. In practice, this means the application of better and stronger criteria than those currently used by Eurostat or in ESA 95. Although not perfect, the usage of GFS or IPSAS criteria would constitute a significant improvement relative to lax interpretations such as those allowed for in ESA 95.

In another approach, some authors (see Engel et al. 2014) have proposed always treating PPP assets and liabilities in the same way as public investments. This seems to be very similar to the new leases approach of the IASB. Then at least all government-funded PPPs would have to be recorded with their present value on-balance sheet for the government side.

[9] Risks of demand should generally be transferred to the public sector, because private subjects cannot effectively alter this risk and the public sector has more capacity for risk-bearing.

Another reform possibility could be the establishment of PPP-ceilings. Funke et al. (2013, p. 24) highlight the fact that some countries have introduced ceilings for PPP, say three percent or five percent of net current government revenue or of GDP. However, such ceilings would not necessarily remove the problem of keeping PPPs off-record or manipulating the underlying indicators such as GDP. Thus ceilings could only be an additional measure taken along with one of the aforementioned measures.

Improving the way budgeting deals with the fiscal implications of PPPs

The budgeting process provides another starting point for controlling PPP usage. Testing for value for money and the affordability of any project, including PPPs, is an obvious necessity and should be considered as a matter of course. However, the former is vulnerable to manipulation, while the latter requires information about the future fiscal impacts of a given PPP. For user-funded PPPs it is absolutely imperative to include shadow tolls, or the foregone government earnings, in these calculations.

All this information could be provided by disclosing the financial commitments incurred due to a given PPP over the period of its contract. The problems here are again manipulation, hiding this information in the appendices of the budget, and the non-binding character of PPP obligations for parliamentary decisions. Hence this measure could also only be an additional, supporting procedure.

Disclosing supplementary information about PPP arrangements

Governments can, voluntarily or as required by law, provide additional information about PPPs to the parliament and the public. This may include, for example, long-term projections of PPP related expenditures, shadow tolls, or other predictable cash flows between the PPP contractors and the government (see Funke et al. 2013, 19).

Finally, governments could disclose PPP contracts and their details on their websites. Due to commercial con-

fidentiality, it may not be possible to provide the public with all information on every single PPP contract, but in any case the financial impact of PPPs on the public budget must be released. For the sake of comparability, the information given by the government needs to be standardized. However, the provision of supplementary PPP material on its own is not likely to have a significant countervailing effect on the misuse of PPP arrangements, as such information can only support budgeting and compliance with fiscal rules.

Discussion

Today the co-existence of several different standards for financial accounting and government accounts can be observed. The financial accounting standard concerning the reporting of Public-Private Partnership (PPP) related assets and debt by private contractors is IFRIC 12 (named by the IFRS interpretations committee). IFRIC 12 uses a control approach (who controls the underlying asset?). The twin of IFRIC 12 applicable to the public sector is the International Public Sector Accounting Standard (IPSAS) 32. Applying both IFRIC 12 and IPSAS 32 would lead to a generally symmetric and consistent treatment of PPP assets and debt either on the balance sheet of the private contractor or on the balance sheet of the public sector. The control criterion, used in both cases, probably would assign most PPP arrangements to the public sector.

On the side of government accounting, designed for the purpose of generating fiscal data, we discussed the Government Finance Statistics (GFS), developed by the International Monetary Fund (IMF), and the European System of Accounts (ESA 95), which is directed at the member states of the European Union. These approaches apply different versions of the risk and reward approach (who bears the main risk of the underlying assets?). The stronger GFS interpretation has similar implications as EPSAS 32, while the weaker interpretation of Eurostat makes it easy to design PPP arrangements so that they fulfill the "as if private" criteria.

The adoption of the accounting standards is voluntary, as are – in part – the standards for national accounts. Thus, there is a very mixed picture of PPP accounting in different countries. In the worst case the government and the private actors are able to play off private standards against government standards. As a result, PPP assets and debt may appear neither on the private side nor on the public side ("orphan assets").

As long as the standards make it easy to shift PPPs to the private sector, or to nothingness, governments are very tempted to use PPP arrangements not to improve public procurement, but to hide deficits and debt or to circumvent deficit and debt caps, such as those established, for example, by the treaty of Maastricht.

To close the existing gaps left by current accounting standards two kinds of measures are basically called for. The first action needed is the introduction of stronger and more consistent criteria both in financial accounting and fiscal accounting. For example, using the principles of EPSAS 32 or the "right of use approach" described in the new release of the International Accounting Standard (IAS) 17 would be a significant improvement compared to ESA 95. The second procedure needed is to improve the budgeting process. Before decisions about public projects (however procured) are made, value for money and affordability must be unconditionally and comprehensibly proven. The fiscal consequences of existing and planned contractual commitments must be shown, covering the complete duration of the contracts. Lastly, while additional information about PPP contracts may be helpful, it is of minor importance. Such information will have no significant impact without improved accounting and budgeting procedures.

Thus we cannot complain that there is a lack of suitable means to address the current shortcomings. The main problem is that politicians and governments have to restrict themselves to a sustainable fiscal policy, and they cannot be expected to do so voluntarily. However, contemporary politicians could impose constraints on politicians in the future. The introduction of the "debt brake" ("Schuldenbremse") in Germany is an example of such a path, one that could easily be emulated by other countries.

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