

INTERNATIONAL MONETARY FUND

**Public-Private Partnerships**

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## EXECUTIVE SUMMARY

**Public-private partnerships (PPPs) involve private sector supply of infrastructure assets and services that have traditionally been provided by the government.** An infusion of private capital and management can ease fiscal constraints on infrastructure investment and increase efficiency. Reflecting these advantages, PPPs are taking off around the world: there are well-established programs in a number of countries (including Chile, Ireland, Mexico, and the United Kingdom), and less developed programs or a good deal of interest in many others. However, it cannot be taken for granted that PPPs are more efficient than public investment and government supply of services. One particular concern is that PPPs can be used mainly to bypass spending controls, and to move public investment off budget and debt off the government balance sheet, while the government still bears most of the risk involved and faces potentially large fiscal costs.

**Adequate risk transfer from the government to the private sector is a key requirement if PPPs are to deliver high-quality and cost-effective services to consumers and the government.** But this is only one of a number of preconditions for success. The quality of services has to be contractible, so that payments to service providers can be linked to their performance and the need for costly contract renegotiation is minimized, and there has to be either competition or incentive-based regulation, which is essential for efficiency. An appropriate institutional framework characterized by political commitment, good governance, and clear supporting legislation is also needed. In addition, the government will have to develop the skills needed to manage a PPP program, and in particular to refine its project appraisal and prioritization.

**Assessing risk transfer is difficult given the multitude of risks to which PPPs are exposed and the complexity of PPP contracts.** While some countries make such an assessment, the focus is on selected provisions of PPP contracts that may be indicative of limited risk transfer to the private sector. In this connection, a recent Eurostat decision on the criteria to be used to assess risk transfer may open the door to PPPs which are intended mainly to circumvent fiscal constraints on euro area countries. In any event, disclosure of PPP contracts is necessary to assess risk transfer.

**There is not yet a comprehensive fiscal accounting and reporting standard for PPPs.** However, existing standards cover a number of PPP operations that can be reported in a straightforward manner. Accounting for PPPs that involve limited risk transfer to the private sector is more complex. In the absence of the internationally agreed guidance on how to do this, the known and potential future cost of PPPs—which derive from the government's contractual obligation to purchase services from the private sector and from government guarantees, respectively—should be disclosed, and taken into account when undertaking debt sustainability analysis. Once an internationally accepted accounting and reporting standard for PPPs is developed, it should be used if it adequately meets the need for transparency and provides an appropriate basis for assessing the fiscal consequences of PPPs.

## I. INTRODUCTION

1. **Public-private partnerships (PPPs) refer to arrangements where the private sector supplies infrastructure assets and services that traditionally have been provided by the government.** PPPs are involved in a wide range of social and economic infrastructure projects, but they are mainly used to build and operate hospitals, schools, prisons, roads, bridges and tunnels, light rail networks, air traffic control systems, and water and sanitation plants. PPPs can be attractive to both the government and the private sector. For the government, private financing can support increased infrastructure investment without immediately adding to government borrowing and debt, and can be a source of government revenue. At the same time, better management in the private sector, and its capacity to innovate, can lead to increased efficiency; this in turn should translate into a combination of better quality and lower cost services. For the private sector, PPPs present business opportunities in areas from which it was in many cases previously excluded.

2. **PPPs offer similar benefits to privatization.** However, privatization went furthest where the public sector was heavily involved in supplying goods and services to private individuals and firms, and competition was both feasible and desirable. The tendency of the private sector to undervalue social infrastructure, and the large sunk costs associated with providing much economic infrastructure, have been obstacles to competition, and hence to privatization, in these areas. Thus, there was extensive privatization of trading establishments, local transportation, and small and medium enterprises during the 1980s and 1990s. By comparison, the privatization of large public enterprises engaged in key areas of infrastructure—electricity, gas, and water utilities, oil and airline companies—was, on a global scale, not as widespread, because of the monopoly position and/or the strategic importance of many of the companies involved.<sup>1</sup> The principal exception in this regard has been in the area of telecommunications, where technological progress has significantly increased opportunities for competition across the world (e.g., to provide cellular phone services). Moreover, some countries have successfully privatized public enterprises across sectors.<sup>2</sup>

3. **By the late 1990s privatization was losing much of its earlier momentum, yet concerns about infrastructure remained in many countries.** It was at this time that PPPs began to emerge significantly as a means of obtaining private sector capital and management expertise for infrastructure investment, both to carry on where privatization had left off and as an alternative where there had been obstacles to privatization. After a modest start, a wave of PPPs is now beginning to sweep the world. Yet it is doing so against a background where,

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<sup>1</sup> This also meant that labor unions were better able to mount concerted opposition to privatization of many such companies.

<sup>2</sup> This happened primarily in advanced OECD countries and in Latin America. The unpopularity of privatization in Latin America has been mainly due to the fact that in several instances public monopolies were transformed into poorly regulated private monopolies.

as in the early days of privatization, the driving force behind PPPs may be not only a quest to increase economic and social efficiency, but also the ability to bypass expenditure controls, and to move public investment off budget and debt off the government balance sheet, by exploiting loopholes in current fiscal accounting and reporting conventions.

4. **The main purpose of this paper is to provide an overview of some of the issues raised by PPPs, with a particular focus on their fiscal consequences.** Following a brief discussion of country experience with PPPs in Section II (more detail is provided in Appendix I), Section III describes the main characteristics of PPPs. Section IV covers some economic analysis that is relevant to the major issues raised by PPPs, and Section V focuses on the institutional framework that is needed for their success. A key to success is risk transfer to the private sector, and Section VI addresses the challenges involved in assessing who bears PPP risks and the implications of limited risk transfer. Section VII (and Appendix II) covers the important topic of fiscal accounting and reporting, and offers interim guidance while an internationally accepted accounting and reporting standard for PPPs is being developed.

## II. EXPERIENCE WITH PPPs

5. **A number of advanced OECD countries now have well-established PPP programs.** Perhaps the best-developed program is the United Kingdom's Private Finance Initiative (PFI), which began in 1992. The PFI is currently responsible for about 14 percent of public investment, with projects in most of the key infrastructure areas. Other countries with significant PPP programs include Australia (and in particular the state of Victoria) and Ireland, while the United States has considerable experience with leasing. Many continental European Union (EU) countries, including Finland, Germany, Greece, Italy, the Netherlands, Portugal and Spain, now have PPP projects, although their share in total public investment remains modest.<sup>3</sup> Reflecting a need for infrastructure investment on a large scale, and weak fiscal positions, a number of countries in Central and Eastern Europe, including the Czech Republic, Hungary, and Poland, have embarked on PPPs. There are also fledgling PPP programs in Canada and Japan. PPPs in most of these countries are dominated by road projects. Similarly, the recently announced EU Growth Initiative envisages the use of PPP-type arrangements primarily to develop a trans-European road network (European Council, 2003).

6. **In the rest of the world, PPPs have made fewer inroads.** However, Mexico and Chile have pioneered the use of PPPs to promote private sector participation in public investment projects in Latin America. In Mexico, PPPs were first used in the 1980s to

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<sup>3</sup> There is evidence that PPPs are growing especially rapidly at the subnational level. Torres and Pina (2001) report that about 30 percent of the services provided by larger EU subnational governments are delivered through PPPs.

finance highways and, since the mid-1990s, a growing number of public investment projects in the energy sector. There are plans to extend the use of PPPs to the provision of other services. Chile has a well-established PPP program that has been used mainly for the development of transportation, airports, prisons, and irrigation. Some other countries, most notably Brazil, are planning significant use of PPPs. There is also a proposal for a regional approach to infrastructure development in Latin America that would involve PPP-type arrangements, much as in the EU.<sup>4</sup> While PPPs are also beginning to take off in Asia, especially in Korea and Singapore, progress elsewhere is limited, although there is strong interest in PPPs in some countries, including South Africa. Appendix I contains detailed discussion of the experience with PPPs in Chile, Ireland, Mexico, and the United Kingdom. Selected experiences of other countries are referred to elsewhere in the paper.

7. **While a number of countries have developed PPP programs, it is too early to draw meaningful lessons from their experiences.** The U.K. government has recently published a comprehensive assessment of the PFI (HM Treasury, 2003), informed in part by the results of independent studies, which is favorable both in terms of procedures and outcomes. Otherwise, while there are particular aspects of country experiences that support some of the points made in the paper, there are as yet few general lessons that can be drawn, especially from the experiences of emerging market economies and developing countries.

### III. CHARACTERISTICS OF PPPs

8. **There is no clear agreement on what does and what does not constitute a PPP.** A PPP has recently been defined as “the transfer to the private sector of investment projects that traditionally have been executed or financed by the public sector” (European Commission, 2003, p. 96). But in addition to private execution and financing of public investment, PPPs have two other important characteristics: there is an emphasis on service provision, as well as investment, by the private sector; and significant risk is transferred from the government to the private sector. Other ways in which the role of government in the economy has been reduced over the last 20 years—including privatization, joint ventures, franchising, and contracting out—share some or all of these characteristics.<sup>5</sup> However, in their typical form, PPPs are distinct from these in that they represent cooperation between the government and

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<sup>4</sup> The proposal is part of a wider development financing strategy being discussed by the Rio Group of Latin American countries. The Rio Group was set up in 1986 to enhance consultation and coordination between Latin American countries on political, economic, and social issues.

<sup>5</sup> Joint ventures are usually set up to exploit the commercial potential of existing government assets, franchising involves competition between private companies to be a monopoly supplier (often in a local market), and contracting out refers to the outsourcing of supply to the government. The terms franchising and contracting out are often used interchangeably.

the private sector to build new infrastructure assets and to provide the related services. As is discussed below, concessions and operating leases—which have also been used to reduce the role of government in the economy—are forms of PPP.

#### A. Basic Features

9. **A typical PPP takes the form of a design-build-finance-operate (DBFO) scheme.**

Under such a scheme, the government specifies the services it wants the private sector to deliver, and then the private partner designs and builds a dedicated asset for that purpose, finances its construction, and subsequently operates the asset and provides the services deriving from it. This contrasts with traditional public investment where the government contracts with the private sector to build an asset but the design and financing is provided by the government. In most cases, the government then operates the asset once it is built. The difference between these two approaches reflects a belief that giving the private sector combined responsibility for designing, building, financing, and operating an asset is a source of the increased efficiency in service delivery that justifies PPPs.

10. **The government is in many cases the main purchaser of services provided under a PPP.** These services can be purchased either for the government’s own use, as an input to provide another service, or on behalf of final consumers; a prison, a school, and a free-access road would fall into these respective categories. Private operators also sell services directly to the public, as with a toll road or railway. Such an arrangement is often referred to as a concession, and the private operator of a concession (the concessionaire) pays the government a concession fee and/or a share of profits. Typically, the private operator owns the PPP asset while operating it under a DBFO scheme, and the asset is transferred to the government at the end of the operating contract, usually for less than its true residual value (and often at zero or a small nominal cost).

11. **The term PPP is sometimes used to describe a wider range of arrangements.** In particular, some PPPs exclude functions that characterize DBFO schemes. Most common in this respect are schemes which combine traditional public investment and private sector operation of a government-owned asset. This arrangement sometimes takes the form of an operating lease, although in cases where the private operator has some responsibility for asset maintenance and improvement, this is also described as a concession.<sup>6</sup> Operating leases and similar arrangements are typically regarded as PPPs<sup>7</sup>. However, private sector involvement in asset building alone—which can take the form of a design-build-finance-transfer (DBFT)

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<sup>6</sup> Operating leases are discussed in more detail in Section VI.

<sup>7</sup> This may limit efficiency gains insofar as a private operator cannot tailor an asset to service requirements. However, in Chile, PPP projects are tendered with detailed design and engineering studies provided by the government, with a view to promoting small firm participation in PPPs and thus increasing competition.

scheme or a financial lease<sup>8</sup>—is not strictly speaking a PPP, since it does not involve service provision by the private sector. While this paper does not seek to explicitly exclude any type of arrangement from the definition of a PPP, including cases where the public sector partner is a public enterprise rather than the government,<sup>9</sup> it pays most attention to PPPs which involve both investment and service delivery by the private sector, and private financing and ownership. Hence the focus is on DBFO schemes.<sup>10</sup> Box 1 describes some of the many variants of PPP schemes.

<b>Box 1. PPP Schemes and Modalities</b>	
<b>Schemes</b>	<b>Modalities</b>
Build-own-operate (BOO) Build-develop-operate (BDO) Design-construct-manage-finance (DCMF)	The private sector designs, builds, owns, develops, operates and manages an asset with no obligation to transfer ownership to the government. These are variants of design-build-finance-operate (DBFO) schemes.
Buy-build-operate (BBO) Lease-develop-operate (LDO) Wrap-around addition (WAA)	The private sector buys or leases an existing asset from the government, renovates, modernizes, and/or expands it, and then operates the asset, again with no obligation to transfer ownership back to the government.
Build-operate-transfer (BOT) Build-own-operate-transfer (BOOT) Build-rent-own-transfer (BROT) Build-lease-operate-transfer (BLOT) Build-transfer-operate (BTO)	The private sector designs and builds an asset, operates it, and then transfers it to the government when the operating contract ends, or at some other prespecified time. The private partner may subsequently rent or lease the asset from the government.

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<sup>8</sup> Financial leases are discussed in more detail in Section VI.

<sup>9</sup> The PIDIREGAS scheme in Mexico covers PPPs between public enterprises and private companies—see Appendix I for further discussion of this scheme. This is also the case for PPPs in Italy and Spain.

<sup>10</sup> While a focus on DBFO schemes accords with common usage of the term PPP, the United Kingdom describes broad private sector involvement in government activities, including privatization and contracting out, as PPPs. DBFO schemes fall under the PFI which is part of the PPP program.



## B. Financing

12. **The private sector can raise financing for PPP investment in a variety of ways.** Where services are sold to the public, the private sector can go to the market using the projected income stream from a concession (e.g., toll revenue) as collateral. Where the government is the main purchaser of services, shadow tolls paid by the government (i.e., payments related to the demand for services) or service payments by the government under operating contracts (which are based on continuity of service supply, rather than on service demand) can be used for this purpose. The government may also make a direct contribution to project costs. This can take the form of equity (where there is profit sharing), a loan, or a subsidy (where social returns exceed private returns). The government can also guarantee private sector borrowing.

13. **PPP financing is often provided via special purpose vehicles (SPVs).** An SPV is typically a consortium of banks and other financial institutions, set up to combine and coordinate the use of their capital and expertise. Insofar as this is their purpose, an SPV can facilitate a well-functioning PPP.<sup>11</sup> However, an SPV can also be a veil behind which the government controls a PPP either via the direct involvement of public financial institutions, an explicit government guarantee of borrowing by an SPV, or a presumption that the government stands behind it. Where this is the case, there is a risk that an SPV can be used to shift debt off the government balance sheet. Private sector accounting standards require that an SPV should be consolidated with an entity that controls it; by the same token, an SPV that is controlled by the government should be consolidated with the latter, and its operations should be reflected in the fiscal accounts.<sup>12 13</sup>

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<sup>11</sup> SPVs are specific to individual PPP projects, and should therefore be distinguished from institutions set up to facilitate PPPs and infrastructure investment in general. The National Development Finance Agency in Ireland and *Infrastruttura SpA* in Italy are examples of the latter.

<sup>12</sup> The International Financial Reporting Interpretations Committee (IFRIC) of the International Accounting Standards Board (IASB) identifies four criteria for consolidation: SPV operations are decided by the originator; the originator controls the SPV; the originator benefits most from the SPV; and the originator assumes SPV risk (see IFRIC,1999).

<sup>13</sup> While there are as yet no obvious examples of problems created by SPVs set up in connection with PPPs, SPVs have been a concern in other spheres. A recent proposal to establish an SPV to facilitate the leasing of 100 Boeing aerial refueling tankers by the United States Air Force is a case in point. The Congressional Budget Office concluded that the SPV would, in effect, be substantially controlled by the federal government, and that its transactions should therefore be reflected in the federal budget (see United States Congressional Budget Office, 2003a).

14. **Where a government has a claim on future project revenue, it can contribute to the financing of a PPP by securitizing that claim.** With a typical securitization operation, the government would sell a financial asset—its claim on future project revenue—to an SPV. The SPV would then sell securities backed by this asset to private investors, and use the proceeds to pay the government, which in turn would use them to finance the PPP. Interest and amortization would be paid by the SPV to investors from the government’s share of project revenue. Since investors’ claim is against the SPV, government involvement in the PPP appears limited. However, the government is in effect financing the PPP, although recording sale proceeds received from the SPV as revenue masks this fact.<sup>14</sup>

#### IV. THE ECONOMICS OF PPPs

15. **PPPs themselves have not been subject to extensive economic analysis.** However, there is a good deal of analytical work that can be brought to bear on the issues that are raised by PPPs.

##### A. Ownership and Contracting

16. **The standard arguments for and against government ownership are relevant to PPPs.** As a general rule, private ownership is to be preferred where competitive market prices can be established. Under such circumstances, the private sector is driven by competition in the product market to sell the goods and services at a price consumers are willing to pay, and by the discipline of the capital market to make profits. However, various market failures (natural monopoly, externalities etc.) can justify government ownership, although government failure can simply substitute for market failure.<sup>15</sup> At a fairly general level, these arguments can be used to motivate PPPs as a means of combining the relative strengths of government and private provision in a way that responds to market failure but minimizes the risk of government failure.

17. **Recent advances in the theory of ownership and contracting provide a more specific analytical justification for PPPs.** The trade-off facing a government seeking to arrange for the provision of a particular service is between quality and efficiency. The government has the capacity to achieve a desired quality standard, but it may have

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<sup>14</sup> For further discussion of securitization, see Chalk (2002) and IMF (2003). While they are not connected to PPPs, securitization operations in Italy have raised questions as to their appropriate accounting treatment. In one case, the government sold real estate at below market price to an SPV to use as collateral in issuing bonds on its own account to pay the government. Eurostat decided that the bonds should be counted as debt and the sale of the real estate should be recorded on budget, because the risks and rewards related to ownership had not been transferred to the SPV.

<sup>15</sup> For an analysis of market and nonmarket failure, see Wolfe (1993).

difficulties doing so while also containing costs. The private sector can use its better management skills and capacity for innovation to more actively pursue opportunities to reduce costs, but service quality may be compromised in the process. However, private provision may be workable if the government can write a fully specified, enforceable contract with the private sector. Hence PPPs would be well suited to situations where the government can clearly identify the quality of services it wants the private sector to provide, and can translate these into measurable output indicators. The government can then enter into a contract with the private sector which links service payments to monitorable service delivery. This being the case, PPPs tend to be better suited to cases where service requirements are not expected to vary substantially over time, and technical progress is unlikely to radically change the way in which the service is provided.

18. **The case for PPPs is weaker where the government cannot write complete contracts because service quality is noncontractible.** In general, services for which overall quality is inherently noncontractible (e.g., national defense, public law and order, diplomatic missions) are not candidates for PPPs, although contractible elements of these services are (e.g., building and maintaining military bases, police stations and courts, and embassies). However, even if service quality, or elements of quality, are noncontractible, the normal presumption should probably be that private ownership is to be preferred because of the potential efficiency benefits it offers (Shleifer, 1998). The onus should then be on those favoring government ownership to make the case in its favor, by reference to the considerations that argue against private ownership.

19. **Even if the quality of service is contractible, build quality may be more problematic.** The main concern in this connection is that shortcuts in construction can be hidden for many years, which creates future liabilities for the government and can necessitate costly renegotiation.<sup>16</sup> Noncontractible build quality provides compelling justification for combining asset creation and operation, which is the defining feature of a typical PPP. This is because the private operator has clear interest in the quality of an asset, given its influence on the capacity to deliver a service effectively and efficiently (Grout, 1997).

## B. Risk Analysis

20. **PPPs involve a range of different risks.** These can be usefully divided into five, somewhat overlapping, categories: *construction risk*, which is related to design problems, building cost overruns, and project delays; *financial risk*, which is related to variability in interest rates, exchange rates, and other factors affecting financing costs; *performance risk*, which is related to the availability of an asset, and the continuity and quality of service provision; *demand risk*, which is related to the ongoing need for services; and *residual value*

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<sup>16</sup> Chile's experience with renegotiating PPP contracts is discussed in Appendix I.

*risk*, which is related to the future market price of an asset.<sup>17</sup> These risks are present in public, private, and PPP projects. PPPs seek to transfer risk from the government to the private sector. While an inflow of private capital and a change in management responsibility alone can be beneficial, significant risk transfer is necessary to derive the full benefit from such changes. The impact of risk transfer on financing costs, and the pricing of risk to ensure efficient risk transfer, then have to be addressed.

### **Risk transfer and financing costs**

21. **Transferring project risk from the government to the private sector should not affect the cost of financing a project.** This follows from the Modigliani-Miller theorem, which says that the cost of capital depends only on the risk characteristics of a project, and not on how it is financed. However, the source of financing can influence project risk. With complete markets in risk bearing, project risk is independent of whether it is borne by the government or the private sector. With incomplete markets in risk bearing, project risk depends on how widely that risk is spread. Since the government can spread risk across taxpayers in general, the usual argument is that this gives the government an advantage over the private sector in terms of managing risk (Arrow and Lind, 1970). But the private sector can spread risk across financial markets, which may not put it at a significant disadvantage, and private sector risk managers may be more skilled than those in government. The outcome is likely to be that project risk is lower in the private sector.<sup>18</sup>

22. **This result may appear to rest somewhat uneasily with the fact that private sector borrowing generally costs more than government borrowing.** However, this mainly reflects differences in default risk. The government's power to tax reduces the likelihood that it will default on its debt, and the private sector is therefore prepared to lend to the government at close to the risk-free interest rate to finance risky projects. This being the case, when PPPs result in private borrowing being substituted for government borrowing, financing costs will in most cases rise even if project risk is lower in the private sector. Then the key issue is whether PPPs result in efficiency gains that more than offset higher private sector borrowing costs.<sup>19</sup> The impact of PPPs on efficiency is taken up below.

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<sup>17</sup> These five main risks can be further subdivided. Detailed risk matrices, together with indications of who should bear each type of risk, are provided in South Africa and the state of Victoria, Australia.

<sup>18</sup> The government's ability to forcibly spread risk across taxpayers, while financial markets have to be provided with an incentive to accept risk, may put the private sector at more of a disadvantage as far as large and very risky projects are concerned. The scope for the private sector to spread risk will also be somewhat limited in countries with less developed financial markets.

<sup>19</sup> The private sector may in some cases face lower borrowing costs than the government. This might be the case where there are serious concerns about government liquidity and/or

(continued)

## Pricing of risk

23. **When considering the PPP option, the government has to compare the cost of public investment and government provision of services with the cost of services provided by a PPP.** Since risk transfer is key to the increased efficiency of PPPs, the government wants to relieve itself of risks that it believes the private sector can manage better than the government. To do this, the government needs to price these risks, so that it knows what it has to pay the private sector to assume them. In this connection, it is important to distinguish between project-specific risk and market risk. Project-specific risk reflects variations in outcomes for individual projects or groups of related projects. Thus for a road project, specific risk could derive from interrupted supply of building materials, labor problems, or obstruction by environmental groups. Project-specific risk is diversifiable across a large number of government or private sector projects and does not need to be priced by the government. Market risk, which reflects underlying economic developments that affect all projects, is not diversifiable and therefore has to be properly priced.

24. **The government and the private sector typically adopt different approaches to pricing market risk.** The government tends to use the social time preference rate (STPR) or some other risk-free rate to discount future cash flows when appraising projects, while private bidders for PPP projects will include a risk premium in the discount rate they apply to future project earnings.<sup>20</sup> Given this mismatch, the government may reject reasonable bids by the private sector for a PPP project. As a consequence, the choice between public investment and PPPs may be biased in favor of public investment, which is counterproductive if the objective is to promote PPPs as a more efficient alternative to public investment and government provision of services.<sup>21</sup> Moreover, even if the PPP route is chosen (maybe because of political preference), the allocation of risk between the government and the

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solvency, and is also likely to be the case for foreign partners of many developing country governments.

<sup>20</sup> For example, under the capital asset pricing model (CAPM), which is widely used by the private sector, the expected rate of return on an asset is defined as the risk-free rate of return plus a risk premium, and the risk premium is the product of the market risk premium and a beta coefficient which measures the covariance between the returns on that asset and market returns.

<sup>21</sup> In those cases where the government uses a discount rate that includes a market risk factor, this is usually arbitrary and low. It therefore changes the size of the bias but does not remove it. Grout (1997) concludes that the long-standing practice of using a STPR of 6 percent in the United Kingdom, which includes a risk factor, has been biased against the PFI projects. However, this bias should be removed with a recent reduction in the STPR to 3½ percent and a requirement that there should be more systematic assessment of risk in comparing public investment and PFI options.

private sector may not be efficient, since the private sector may choose techniques of production or other project design features which are less efficient, simply because they carry lower risk.<sup>22</sup> Also, the private sector may respond to the underpricing of risk by compromising on the quality of construction and service supply to the extent possible without obviously violating its contract with the government. On the other hand, it is also possible that the government overprices risk and overcompensates the private sector for taking it on, which would raise the cost of PPPs relative to direct public investment. Finally, there may be incentives for the government to compensate for an underpricing of risk by extending guarantees, which may also end up costing the government more over the longer term.

### C. Competition, Regulation, and Efficiency

25. **Much of the case for PPPs rests on the relative efficiency of the private sector.** While there is an extensive literature on this subject, the theory is ambiguous and the empirical evidence is mixed. But if a common theme emerges, it relates to the importance of competition as a source of efficiency in both the private and public sectors. This explains the use of franchising as means of having the private sector engage in repeated competition for a market which is inherently monopolistic yet still contestable (as distinct from having continuous competition in a market). However, the scope for competition in the activities undertaken by PPPs is more limited, because they tend to be less contestable for reasons mentioned above—social infrastructure is undervalued and economic infrastructure involves large sunk costs. But an area where competition is clearly feasible is in bidding for the award of construction and service contracts, and this is crucial if PPPs are to benefit from having the private sector put its capital at risk, and from its management skills and capacity to innovate.

26. **Incentive-based regulation is also important.** Where a private operator can sell to the public, but there is little scope for competition, the government usually regulates prices. However, the challenge is to design well-functioning regulation which increases output (towards the social optimum), holds down prices, and limits monopoly profit while preserving the incentive for private firms to be more efficient and reduce costs. Of the two most common forms of regulation, rate of return regulation suffers from the problems involved in establishing appropriate cost benchmarks in a monopolistic situation. It is therefore weak on incentive grounds. The main alternative, price regulation, caps price increases, and therefore has potential for success on both counts. However, the fact that caps are often adjusted to reflect rate of return considerations means that rate of return and price

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<sup>22</sup> While it is not strictly speaking a PPP, the privately financed Channel Tunnel Rail Link between the United Kingdom and France was chosen over a road tunnel—which the government considered building and operating itself, and which would have offered better service to users—because the private sector's higher discount rate led it to favor the option that was lower cost and offered quicker, more secure returns (see Kay, 1993).

regulation tend to be quite similar in their effects. Yardstick competition, in which rate of return regulation is based on costs in closely related domestic or in international firms, or a hypothetical efficient firm, has more promise, although it is informationally demanding. Finally, profit sharing between the government and the private partner is an alternative form of regulation which preserves incentives, although it could still lead to excessive profits. This being the case, it tends to work better where the government is the main purchaser of services (Laffont and Tirole, 1999).

## V. INSTITUTIONAL FRAMEWORK FOR PPPs

27. **Successful PPPs deliver high-quality services to consumers and the government at significantly lower cost than would be the case with public investment and government provision of the same services.** The preceding discussion suggests that PPPs are more likely to result in efficiency gains that offset higher private sector borrowing costs if they have the following characteristics: the quality of services is contractible; there is adequate risk transfer to the private sector; and there is either competition or incentive-based regulation. These features should be reflected in the policy framework for PPPs, along the lines of that provided by the state of Victoria, Australia, which is summarized in Box 2. However, an appropriate institutional framework is also needed if PPPs are to succeed. While the challenges in this connection are greater in emerging market economies and developing countries, and a PPP program should proceed with caution when such a framework is not in place, advanced OECD countries also face challenges in this regard. Although not exhaustive, the following are elements of such a framework.

28. **Political commitment and good governance are prerequisites for success.** A PPP is a major commitment on the part of the private sector, which needs to know that politicians are also committed to private involvement. Uncertainty in this regard gives rise to political risk that is not conducive to making long-term business decisions. At the same time, potential private partners need to know that the government is fair in its dealing with the private sector, and will meet the commitments it makes under PPPs. It is also important to establish clear channels of responsibility and accountability for government involvement in PPPs. Widespread corruption in government would be a serious obstacle to successful PPPs, in the same way that it prevented successful privatization (Lora and Panizza, 2003).

29. **An appropriate legal framework can provide reassurance to the private sector that contracts will be honored.** In some cases this will require changes or additions to existing laws. For example, Italy and Spain have recently revamped legal frameworks that for many years have been an obstacle to PPPs. In the case of Italy, the 1994 Merloni Law has undergone a number of changes designed to facilitate private participation in infrastructure investment, while the 2001 *Legge Obiettivo* established a fast-track system for strategically

### **Box 2. PPP Policy Framework in Victoria, Australia<sup>1</sup>**

Victoria has developed a detailed and explicit policy on PPPs, Partnerships Victoria. An emphasis on value for money and the public interest is the key feature of the policy. There is, however, no presumption that the private sector (or, for that matter, the public sector) can deliver projects more efficiently or effectively. Instead, decisions are made on their merit and outcomes are judged on the basis of the public benefits obtained.

PPP projects should focus on the specification of the end result rather than the means of delivery, and performance measures should be established to ensure that the quality of services delivered meets the needs of the community. Private participation is to be the subject of competitive bidding, consistent with the government's procurement policies, and there should be an emphasis on transparency and disclosure of process and outcomes, while acknowledging the need to protect commercial confidentiality where appropriate. Moreover, standardized approaches are to be used wherever possible to minimize transactions costs and, if needed, incentives should be provided to encourage high-level performance.

Partnerships Victoria projects should have a number of features. Outputs should be clearly specified (including measurable performance standards), and one or more private parties must be fully accountable to the government for the delivery of services. The clear specification of required outputs allows bidders to compete in devising creative means of delivering those outputs, with a view to reducing costs. Public agencies should limit detailed specification of inputs, such as the design of infrastructure, or the means by which outputs are to be generated. There must also be a clear articulation of the government's responsibilities, including the monitoring of outcomes, and payments are due only upon delivery of the specified services, if they meet the required standards.

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<sup>1</sup> Based on Victoria (2000, 2001) and material available at the Partnerships Victoria website (<http://www.partnerships.vic.gov.au/>).

important infrastructure projects.<sup>23</sup> In the case of Spain, the 2003 Concessions Law supplements a number of laws that already allow PPPs, by extending private financing options.<sup>24</sup> In both Italy and Spain, the new laws have also sought to secure creditor rights, and this has also been emphasized in Brazil and Chile, where reassuring investors that the government will honor its future commitments is judged crucial. In Brazil, a draft law has

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<sup>23</sup> The Merloni law deals specifically with concessions. One requirement of the law is that winner of a concession contract is required to set up an SPV, with a structure and capitalization established by the public agency that awards the contract. For further discussion, see De Pierris (2003).

<sup>24</sup> The law facilitates private financing by allowing a number of financing techniques, including securitization and shadow tolls. Concessions can also be used for practically any kind of infrastructure, and not only for roads as previously. See Montesinos and Benito (2000) and Acereite (2003) for further discussion of PPPs in Spain.



been presented to congress that would govern all aspects of PPPs. The provisions of this law are summarized in Box 3. The legal framework for PPPs should be supplemented by clear, credible, and efficient dispute resolution mechanisms. Finally, it is important that PPPs should face nondiscriminatory taxation and regulation regimes.

### **Box 3. PPP Legislation in Brazil**

The Brazilian government has recently presented a draft law to congress that would govern PPPs at all levels of government.<sup>1</sup> This law would complement existing legislation in the fiscal area, including the Concessions Law and the Procurement Law.<sup>2</sup> The law would create a new contractual modality through which a private partner is responsible for the construction and financing of a public asset that supports the provision of a contracted service. At the expiration of the contract, with a maximum duration of 30 years, the asset must be transferred to the public sector, with or without a final payment (depending on the contract).

The draft law envisages key roles for the Ministry of Planning and the National Monetary Council in the regulation of the PPP program. The former would be responsible for overall coordination of the program and the approval of specific projects; the latter, through its regulatory powers, would set limits on the exposure of financial institutions to PPP projects (including the exposure of public banks and, in particular, the National Development Bank). Foreign borrowing from official sources by the private sector would be subject to the standard approval process for such operations. Controls on domestic non-bank and foreign nonofficial financing are weaker. The plan is to deal with this on a contract-by-contract basis.

The draft law also contains provisions to minimize the exposure of private partners to institutional risk. Key elements to contain the risk of non-payment by the government include: granting seniority to PPP contract payments over other categories of expenditure, except for debt service and constitutionally mandated spending; permitting private partners to pledge future payments from a PPP contract to financial institutions; allowing the earmarking of revenue to meet PPP contract payments; and the creation of trust funds to guarantee PPP contract payments. The draft law does not specify minimum capital requirements for private partners, and does not specify mechanisms to allocate risk. Both of these issues will be dealt with in each contract. Payments and guarantees that the government can commit to under PPP contracts are not specified in the draft law, and will be governed by the provisions of existing legislation.

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<sup>1</sup> A Draft Law Instituting General Rules on Public-Private Partnerships Within the Realm of the Public Administration.

<sup>2</sup> Under the Concessions Law, the private sector can build and operate public infrastructure, but the government cannot make payments to a concessionaire. Under the Procurement Law, the private sector is supplier to the public sector, it cannot charge user fees, and contracts can have a maximum duration of five years.

**30. PPPs require the development of expertise in the government.** This covers the full range of skills required to manage a PPP program. One common complaint about PPPs from the private sector is that bidding and contracting take much longer than in the private sector. Thus one of the functions of Partnerships UK, a specialized government agency in the United Kingdom, is to promote PFI projects within government by providing financial, legal, and

technical advice and assistance to support contract negotiations and procurement. The *Unità Tecnica per la Finanza di Progetto* (UTPF) in Italy is by name a project financing unit, but in practice has a wider advisory and consultative role.<sup>25</sup> However, in both these cases, the focus is on facilitating new PPP projects, while managing a large stock of ongoing projects could represent an equal or more demanding challenge. Particular attention will also need to be paid to skill development by subnational governments, since in many countries the responsibility for spending in areas that are likely candidates for PPPs is devolved to them.

31. **The government will also have to refine its project appraisal and prioritization.** First and foremost, the decision whether to undertake a project, and the choice between traditional public investment and a PPP to implement it, should be based on technically sound value-for-money comparisons. It is particularly important to avoid a possible bias in favor of PPPs simply because they involve private finance, and in some cases generate a revenue stream for the government.<sup>26</sup> The PPP Unit of the National Treasury of South Africa provides detailed guidance and technical assistance to agencies related to the feasibility and management of PPPs.<sup>27</sup> In Chile, project evaluation and prioritization involves a number of interested ministries and government agencies, including the Ministry of Finance which ensures that the future fiscal implications of PPPs are consistent with medium-term debt sustainability. More generally, PPPs should not complicate fiscal management, an objective which places a premium on proper accounting and reporting (as discussed in Section VII).

## VI. RISK TRANSFER, LEASING, AND OWNERSHIP

32. **Risk transfer from the government to the private sector has a significant influence on whether a PPP is a more efficient and cost-effective alternative to public investment and government provision of services.** This is clearly something the government should consider in deciding whether to embark upon a PPP and in negotiating the terms of a PPP contract. It should also be a focus of those seeking to assess whether a PPP will indeed yield the benefits that are claimed for it, and in particular whether it is being

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<sup>25</sup> The UTFP was established in 1999 and began operation in July 2000. This unit provides specific expertise to enable the public administration to identify projects that could attract private sector investment. Between 2000 and 2002, the UTFP analyzed some 800 PPP initiatives, but only a handful of projects has commenced.

<sup>26</sup> Partly in response to such concerns, in Chile and Italy the private sector is allowed to propose projects to be developed as PPPs.

<sup>27</sup> The PPP Unit was set up in 2000, and is used by the Treasury to exercise strict control over PPPs, which are unpopular with trade unions and not seen by the government to be a panacea. Hence, only eleven PPP projects have been implemented to date. See Fourie and Burger (2000, 2001) for further discussion.

avored mainly to move public investment off budget. Risk transfer is also relevant to determining the proper accounting and reporting treatment of PPPs, indeed the discussion of risk transfer that follows draws on material that is part of accounting standards. However, risk transfer is a self-contained topic that can usefully be discussed prior to addressing accounting and reporting issues.

#### **A. Risk Transfer and Leasing**

33. **The private operator is typically the legal owner of a PPP asset for the period of the operating contract.** However, if the government bears the risks (and derives the rewards) that are normally associated with ownership, it is in effect the economic owner of the asset. When this is the case, PPP investment is largely indistinguishable from traditional public investment, except that the payment profile for the government is different. Instead of the government making an upfront payment to cover the cost of building an asset, the private sector bears this cost and the government covers the opportunity cost of capital as part of its service payment to the private sector. This is how PPPs can be used to record initially lower government borrowing and debt than with traditional public investment.

34. **In general, ownership of an asset and operating it entail different risks.** Where the PPP contract distinguishes between the rights and obligations of the private partner in its capacity as the owner, as distinct from the operator, of an asset, risk transfer can be assessed by reference to the former. Private sector accounting standards provide guidance on how to do this for leases. A standard lease contract is between the owner of an asset (the lessor) and the user of an asset (the lessee). With an operating lease, which is similar to a rental arrangement in that a payment is made by the lessee to use an asset, the lessor bears the risks related to ownership. With a financial lease, which is a form of borrowing by the lessee to obtain the asset, the lessee bears these risks. Whether a lease is an operating or a financial lease depends on the substance of the transaction rather than the form of the contract. Factors that should influence a decision in this regard are discussed in a number of private sector accounting standards for leases, such as those issued by the IASB and the Financial Accounting Standards Board (FASB) in the United States. The factors included in the IASB standard are summarized in Box 4.

35. **While PPPs can be specifically set up as operating leases, it is unusual for them to take the form of financial leases.** Financial leases tend to be used by governments to obtain major items of capital equipment such as airplanes, and not to build infrastructure. Indeed, with a typical PPP such as a DBFO scheme, the PPP asset is legally owned by the private operator, and so on the face of it, since only one party is involved, this arrangement cannot be described as a lease. However, an examination of the substance of a PPP transaction may lead to the conclusion that the government, rather than the private owner, bears most of the risks associated with ownership. Where this is the case, the view can be taken that the asset is in effect being acquired by the government through a financial lease, and that the government is the economic, as distinct from legal, owner of the PPP asset.

#### **Box 4. Factors Determining the Substance of a Lease<sup>1</sup>**

According to the International Accounting Standards Board (IASB), the following factors would normally lead to a lease being classified as a financial lease.

- The lease transfers ownership of the asset to the lessee by the end of the lease term.
- The lessee has the option to purchase the asset at a price which is expected to be sufficiently lower than the fair value at the date the option becomes exercisable such that, at the inception of the lease, it is reasonably certain that the option will be exercised.
- The lease term is for the major part of the economic life of the asset even if title is not transferred.
- At the inception of the lease, the present value of the minimum lease payments approximates the fair value of the leased asset.
- Leased assets are of a specialized nature such that only the lessee can use them without major modifications being made.

Individually or in combination, the following factors could also lead to a lease being classified as a financial lease.

- The lessee can cancel the lease and the lessor's losses associated with the cancellation are borne by the lessee.
- Gains or losses from the fluctuation in the fair value of the residual fall to the lessee (for example, in the form of a rent rebate equaling most of the sales proceeds at the end of the lease).
- The lessee has the ability to continue the lease for a secondary period at a rent which is substantially lower than market rent.

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<sup>1</sup> Based on International Accounting Standard (IAS) 17, *Leases*, International Accounting Standards Board, 1999.

### **B. Assessing Risk Transfer and Ownership**

36. **Some criteria have been devised to assess the degree of risk transfer involved in PPPs.** To a large extent, these derive from the private sector approach to classifying leases, indeed the International Federation of Accountants (IFAC) has issued a standard for the public sector on leases which is closely related to the IASB standard for the private sector.<sup>28</sup>

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<sup>28</sup> International Public Sector Accounting Standards (IPSASs) 13 *Leases*, issued in December 2001. IFAC is a global accountancy organization whose main purpose is to establish high quality accounting standards and to promote international convergence of standards. It also

(continued)

However, IFAC acknowledges that the public sector may enter into a variety of arrangements for the provision of goods and services involving the use of dedicated assets where it is unclear whether a financial lease is involved. Some national standards include quantitative criteria to establish the existence of a financial lease. For instance, the state of Victoria in Australia focuses on three criteria to determine whether a Partnerships Victoria PPP contract should be classified as a financial lease: does the government finance 90 percent or more of asset costs; does the service contract cover 75 percent or more of the useful life of the asset; and does the contract include a ‘bargain basement provision’ whereby the government can purchase the asset at the end of the contract for substantially less than its residual value?<sup>29</sup>

**37. Where PPP contracts do not provide a basis on which to distinguish between the risks associated with ownership and operation, the extent of risk transfer can be assessed by reference to the overall risk characteristics of a PPP.** This is done in the United Kingdom, where the specific aim, for both separable PFI contracts (with clear ownership and service elements) and nonseparable contracts, is to determine whether the government or the private operator “has an asset in a PFI property.” For nonseparable contracts, the U.K. approach is based, first and foremost, on the balance of demand risk and residual value risk borne by the government and the private operator. Demand risk, which is an operating risk and is the dominant consideration, is borne by the government if service payments to a private operator are independent of future need for the service. Residual value risk, which is an ownership risk, is borne by the government if a PFI asset is transferred to the government for less than its true residual value.<sup>30</sup> Reference can also be made to various qualitative indicators, including government guarantees of private sector liabilities, and the extent of government influence over asset design and operation. The final conclusion is a professional judgment based on all relevant factors.

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recommends accounting standards for the public sector through its Public Sector Committee (IFAC-PSC).

<sup>29</sup> Since 1990, the United States Office of Management and Budget has used these three criteria, and three others—related to who owns the asset during the contract period, whether the asset is a general- or specific-purpose asset, and whether there is a private market for the asset—to distinguish an operating lease from a financial lease (or in U.S. terminology, a capital lease). See United States Office of Management and Budget (2002) and United States Congressional Budget Office (2003b) for more details.

<sup>30</sup> Residual value risk is borne by the government because the private operator reflects the difference between the expected residual value of the asset and the price at which the asset will be transferred to the government in the price it charges the government for services, or the revenue the government receives from a project. If the asset ends up being worth more or less than the amount reflected in the service payment or government revenue, any resulting gain benefits the government and any or loss is borne by the government.

38. **Eurostat also provides guidance on the classification of PPP assets based on risk transfer.** To this end, Eurostat has recently issued a decision which says that a private partner will be assumed to bear the balance of PPP risk if it bears most construction risk, and either most availability risk (which is also referred to as performance risk) or most demand risk. Further detail is provided in Box 5. While focusing on a few key risk categories for the purpose of assessing risk transfer is understandable, the Eurostat decision is problematic.<sup>31</sup> 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. This being the case, the decision appears to be more liberal than Eurostat itself has been in classifying PPPs. Thus, in the case of Ireland, Eurostat indicated that early PPP projects involved insufficient risk transfer, and that investment in these projects would be classified as public investment. To date, all PPP investment in Ireland has been treated in this way. A concern is that the decision could open the door to PPPs that are intended mainly to circumvent the SGP.

39. **Assessing risk transfer is likely to remain a difficult exercise.** Certainly, full disclosure of the terms of original and renegotiated PPP contracts, along with some simplification and standardization, is essential. However, the legal complexity of PPP contracts means that they will always be hard to interpret, and this will complicate assessments of risk transfer even when the focus is on a few key risks. Moreover, the PPP contract may not tell the whole story, since it is only relevant to ex ante risk transfer. Political pressure for the government to bail out large projects (that are too big to fail), and providers of essential services, may mean that the government in fact bears more risk than the contract suggests.

## VII. FISCAL ACCOUNTING AND REPORTING

40. **There is not yet a comprehensive fiscal accounting and reporting standard specifically for PPPs.** While the accounting profession is taking steps to develop an internationally accepted standard, the eventual features of such a standard are not yet clear.<sup>32</sup> In the meantime, the current lack of a standard makes it difficult to close loopholes that enable PPPs to be used to bypass expenditure controls, and to move public investment off

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<sup>31</sup> It is nevertheless interesting that Eurostat does not place more emphasis on residual value risk, since this is a clear ownership risk. It was also highlighted in a Eurostat ruling on securitization in Italy, referred to in Section III.

<sup>32</sup> This is being done under the auspices of the IFAC-PSC. A newly established Interagency Task Force on Harmonization of Public Sector Accounting, which held its first meeting in February 2004, is addressing this topic. With the exception of Donaghue (2002), little has been written about the accounting treatment of PPPs.

### **Box 5. Eurostat Decision on the Treatment of PPPs<sup>1</sup>**

The Eurostat decision covers long-term contracts in areas where the private partner builds an asset and delivers services mainly to the government.

Eurostat recommends that assets involved in public-private partnerships should be classified as non-government assets, and therefore recorded off balance sheet for government, if both of the following conditions are met: (1) the private partner bears the construction risk, and (2) the private partner bears one of either availability or demand risk. An accompanying opinion of the Committee on Monetary, Financial and Balance of Payments Statistics indicates that these conditions refer the private partner bearing “most of the risk” concerned.

Construction risk covers events such as late delivery, low standards, additional costs, technical deficiency, and external negative effects. If the government makes payments to the private partner irrespective of the state of the asset, this indicates that the government bears most construction risk. Availability risk relates to the ability of the private partner to deliver the agreed volume and quality of service. Government payments to the private partner that are independent of service delivery indicate that the government bears most delivery risk. Demand risk covers the impact of the business cycle, market trends, competition, and technological progress on the continued need for the service. Government payments to the private partner that are independent of demand indicate that the government bears most demand risk. Changes in demand due to changes in government policy are excluded.

It is the responsibility of national statistical offices to implement the Eurostat decision, based on information that is judged to be easily obtained from PPP contracts. However, where a clear classification is difficult to make, other contract provisions can be taken into account. In particular, if the government has an obligation to buy the asset at the end of the contract at a predetermined price, this would indicate that the government bears most PPP risk when other considerations are unclear.

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<sup>1</sup> Based on Eurostat (2004)

budget and debt off the government balance sheet.<sup>33</sup> Moreover, resort to guarantees to secure private financing can expose the government to hidden and often higher costs than traditional public financing. An internationally accepted accounting and reporting standard could promote transparency about the fiscal consequences of PPPs, and in the process make increased efficiency rather than a desire to meet fiscal targets their main motivation. In any event, as PPPs become more commonplace, market analysts and rating agencies are developing the expertise to assess the fiscal risks they involve, and in particular the consistency of future commitments under PPPs and contingent liabilities with debt sustainability. Thus any misuse of PPPs is unlikely to escape market scrutiny for long.

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<sup>33</sup> Similar considerations led the Fund Board to include leases under the external debt limits of Fund-supported programs. See Board Decision No. 12274 (00/85), August 24, and IMF (2000) for further details.

41. **Existing standards provide a starting point to address the accounting and reporting treatment of PPPs.** The *1993 System of National Accounts (1993 SNA)* and the *1995 European System of Accounts (ESA 95)* cover some operations that characterize PPPs, including leases, while *ESA 95*, supplemented by the *ESA 95 Manual on Government Deficit and Debt*, covers public infrastructure built and operated by the private sector.<sup>34</sup> The *Government Finance Statistics Manual 2001 (GFSM 2001)* fiscal reporting framework—which integrates flows and stocks, and shifts the emphasis toward accrual reporting and balance sheets—is also well suited to reporting on PPPs, although it does not currently provide comprehensive coverage of such operations.<sup>35</sup>

#### A. The Current Treatment of PPP Operations

42. **Eurostat addresses the accounting treatment of the following PPP operations: operating contracts, concessions and operating leases, financial leases, and the transfer of PPP assets to the government.** This treatment is described below using the *GFSM 2001* fiscal reporting framework.

- **Operating contracts.** Where a PPP asset is owned by the private operator, payments under operating contracts for services provided to the government are recorded in the government operating statement as an expense.
- **Concessions and operating leases.** Concession fees and other payments by private operators of concessions to the government (e.g., profit shares) are recorded in the operating statement as revenue.<sup>36</sup> When the government leases an asset it owns to a

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<sup>34</sup> Although *ESA 95* is accepted only in the European Union, while the *1993 SNA* is internationally accepted, it is likely that a move in the direction of harmonizing the two standards will see the *1993 SNA* move in the direction of *ESA 95* as far as PPPs are concerned.

<sup>35</sup> For a detailed discussion of *GFSM 2001*, see IMF (2001).

<sup>36</sup> The treatment of concessions has been questioned, however. Since a concession involves the transfer of the government's monopoly power to the private sector, the view has been expressed that concessions should be considered nonfinancial assets. This treatment can be seen as an attempt to extend the discussion of the treatment of mobile phone licenses to concessions. However, in the case of mobile phone licenses, it was agreed that an underlying asset, the spectrum, existed, whereas in the case of concessions, no such asset exists.



private operator, lease payments to the government by a private operator are also recorded as revenue.<sup>37</sup>

- **Financial leases.** The acquisition of an asset under a financial lease would be recorded in the operating statement at cost, together with incurrence of a lease liability to the private sector. The asset and liability would also be recorded on the government balance sheet. Subsequent depreciation of the asset, and interest and amortization payments on the lease, would then be recorded in the operating statement. As the lease liability is reduced, the PPP net asset value will build up on the balance sheet (provided that the liability is reduced at a faster rate than that at which the asset is depreciated). When the lease concludes, the asset will be recorded on the government balance sheet at its residual value.<sup>38</sup>
- **Transfer of PPP assets to government.** If there is provision for a PPP asset to be transferred at zero cost to the government, the asset transfer is recorded in the operating statement as the acquisition of a nonfinancial asset at its residual value, balanced by a capital transfer from the private owner. Any purchase price involved would be an expense, and the capital transfer is reduced by the corresponding amount.<sup>39</sup> The asset would also be recorded on the balance sheet at its residual value at the time the transfer takes place, and subsequent depreciation of the asset would be recorded in the operating statement.

The Eurostat treatment of the preceding PPP operations is a straightforward way to record them in the fiscal accounts.

43. **It should be noted that many countries are still working with the cash-based predecessor of *GFSM 2001, A Manual on Government Finance Statistics 1986 (GFSM 1986)*.** Under this framework, which is the basis of traditional fiscal accounts, only cash flows are recorded. However, with the exception of depreciation, other noncash transactions could be recorded in adjusted cash accounts. Since balance sheets are not part of *GFSM 1986*, PPP assets are not recorded as such, but the liability under a financial lease is recorded as government debt.

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<sup>37</sup> When the government leases an asset from a private owner, lease payments by the government are recorded as an expense; however, as indicated in Section III, this is not usually regarded as a PPP.

<sup>38</sup> As indicated in Section VI, PPPs do not typically take the form of financial leases.

<sup>39</sup> If the government pays more than residual value for an asset, the asset is still acquired by the government at its true residual value, and there is also a capital transfer from the government to the private operator.

## B. Accounting for Limited Risk Transfer

44. **When PPP projects involve limited risk transfer to the private sector, the practice of Eurostat and in a number of countries is to classify PPP assets as government assets.** This is done with a view to recognizing that the government plays a role in the economy and conducts fiscal policy through PPPs. For accounting purposes, Eurostat treats PPP investment that exposes the government to significant risk as public investment, while the state of Victoria in Australia and the United Kingdom assume that the government is acquiring the PPP asset through a financial lease.<sup>40</sup> These two approaches are formally the same. It is likely that accounting for limited risk transfer will be paid considerable attention by the accounting profession as it seeks to develop a general accounting and reporting standard for PPPs. In this connection, the focus is likely to be on refining the approach to accounting when assessments of risk transfer suggest that the government bears the balance of risk and, as a consequence, PPP assets are treated as government assets.<sup>41</sup>

45. **It is questionable, however, whether classifying PPP assets as either government or private assets is an appropriate way of reflecting the extent of risk transfer.** PPPs involve a range of risks, and government exposure to PPP risk will vary widely across projects. Ideally, an attempt should be made to gauge the risk to which the government is exposed under each PPP contract, and to assess the fiscal consequences of such risk. This, however, is extremely difficult to do, even in the relatively straightforward case of explicit guarantees. But classifying PPP assets as either government or private assets instead is insensitive to the extent of risk sharing, and could discourage PPPs where the private sector is prepared to bear significant (but not most) risk and cover a sizable share of project costs. This being the case, the accounting profession, rather than refining the current approach to accounting for limited risk transfer, should seek to develop a workable approach to assessing and quantifying PPP risks borne by the government, and to disclosing these risks. Countries will then have to develop their own capacity to assess risk transfer under PPPs.

## C. Contractual Obligations and Government Guarantees

46. **With many PPPs, the government has a contractual obligation to purchase services from a private operator.** These payments have fiscal implications over the medium to long term which should be disclosed. At a minimum, the stream of future contract payments under agreed PPP contracts should be reported. This is done in the United Kingdom, to indicate the extent to which these payments limit fiscal policy flexibility in the

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<sup>40</sup> In the case of the United Kingdom, this practice has resulted in 57 percent of PFI assets being classified as government assets (HM Treasury, 2003).

<sup>41</sup> Some technical accounting issues raised in connection with treating PPP assets as government assets—which the accounting profession is known to be concerned with—are discussed in Appendix II.

future. However, there is an issue as to whether future contract payments should also be capitalized and counted as a liability. The argument for not doing so is that these payments are contingent on the satisfactory delivery of a service, and can anyway be changed over the life of an operating contract as service needs and demands, supply technology, etc., change. The counterargument is that taking on a contractual obligation does more than limit fiscal policy flexibility in the future. In particular, assessments of debt sustainability are affected in the same way as if the government had incurred debt to finance public investment and provide the service itself, in that larger primary surpluses or smaller primary deficits (exclusive of the PPP payments) have to be generated to ensure a desired debt path. This being the case, the net present value of future contract payments under PPPs less any contractual receipts from the private sector (e.g., concession fees), both discounted using a risk-free interest rate, should be added to government debt when assessing debt sustainability.<sup>42</sup> However, this should be an interim arrangement pending development of an internationally agreed approach to assessing, quantifying, and disclosing PPP risks, and to reflecting them in fiscal analysis (including debt sustainability analysis), as called for above.

47. **Government guarantees provided in connection with PPPs are a major source of fiscal risk.** The risks incurred by the private sector in connection with PPPs can be reduced or eliminated through explicit government guarantees. Most commonly in connection with PPPs, financing risk is reduced through loan guarantees, demand risk is reduced through guaranteed minimum payments for services sold to the public, and residual value risk is reduced by the government guaranteeing the price at which it will purchase an asset when the operating contract ends.<sup>43 44</sup>

48. **The disclosure of government guarantees is widely called for.** Thus the Fund's *Code of Good Practices on Fiscal Transparency* and the related *Manual on Fiscal Transparency* require statements as part of the budget documentation that describe the nature and significance of all contingent liabilities.<sup>45</sup> However, compiling the information required

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<sup>42</sup> It should be noted that there is no basis to record the present value of future contract payments as a liability under *GFSM 2001* given that a commitment to pay for a service cannot be accrued until the service is delivered. Rather, an ad hoc adjustment has to be made to the nominal debt measure reported as a memorandum item to the balance sheet.

<sup>43</sup> The transfer of a PPP asset to the government at less than its residual value, which is discussed earlier, is akin to a guarantee even if it is not described as such.

<sup>44</sup> For a fuller discussion of guarantees and other contingent liabilities, see Brixi and Schick (2002).

<sup>45</sup> Disclosure is also required by the OECD *Best Practices for Budget Transparency* and IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*, issued by IFAC, while contingent liabilities are reported as a memorandum item to the balance sheet in *GFSM 2001*.

to comply with this practice presents a considerable challenge for most countries that currently lack a framework for managing guarantees. Good disclosure practice is to publish detailed information on guarantees. This should cover the public policy purpose of each guarantee or guarantee program, the total amount of the guarantee classified by sector and duration, the intended beneficiaries, and the likelihood that the guarantee will be called. Information should also be provided on past calls of guarantees. Best practice is to publish quantitative estimates of the potential fiscal impact of guarantees that, based on past experience, are likely to be called (i.e., the expected value of guarantee payments). For example, the United States requires systematic estimates of the potential costs of loan and pension guarantees, deposit and other forms of insurance, and most other contingent liabilities.

49. **Where the cost of calls on guarantees is potentially of fiscal policy significance, allowance should be made in the budget to meet the expected cost.** In other cases, this can be handled through the general contingency appropriation. The expected value of guarantee payments should also be reflected in any discussion of the medium-term fiscal outlook, and taken into account when assessing debt sustainability. However, reflecting the difficulties involved in measuring the expected value of guarantee payments, this should not be treated as an expected liability which is added to the debt. Rather, the larger the expected liability associated with guarantees, the less favorably a particular debt path will be viewed. The formal incorporation of this liability into debt sustainability analysis should again await development of an approach to assessing, quantifying, and disclosing PPP risks and to reflecting them in fiscal analysis. To reduce the fiscal risks associated with guarantees, in addition to full disclosure, countries should take steps to control these risks (e.g., through careful screening of requests for guarantees, limits on individual and overall exposure, and charging risk-related fees).

50. **The accounting treatment of those guarantees that are called is straightforward.** There are two possibilities: either the government assumes the liabilities concerned and there is no financial claim on the original borrower, or the government lends to the borrower on the assumption that the borrower will repay at a later stage. In the first case, the government records the full cost of called guarantees as an expense, and the assumption of a loan as a liability. In the second case, the government has a claim on the borrower, which is recorded as the acquisition of a financial asset. When the loan is repaid, interest is recorded as revenue, and amortization as a financial transaction.

#### **D. Summary of Disclosure Requirements for PPPs**

51. **Considerable emphasis has been placed on disclosure as a means of making the fiscal consequences of PPPs fully transparent.** In summary, the disclosure requirements for PPPs called for in this paper are the following.

- PPP contracts should be disclosed, and simplification and standardization should be sought.

- Operating contracts, concessions and operating leases, financial leases, and the transfer of PPP assets to the government should be recorded in the fiscal accounts according to the treatment used by Eurostat.
- The stream of future contract payments under existing PPP contracts should be reported.
- Government guarantees should be disclosed as called for by the Fund's *Code of Good Practices on Fiscal Transparency*.

Where a PPP program is of fiscal significance, a report on PPPs—covering all of the preceding disclosure requirements—should be included as part of the budget documentation.

### Country Experiences With PPPs

52. This annex provides an overview of experiences with PPPs in Chile, Ireland, Mexico, and the United Kingdom.

#### Chile<sup>46</sup>

53. Chile's experience with PPPs has been successful, and a significant portion of the sizable infrastructure gap identified a decade ago has been filled.<sup>47</sup> Since 1994, the government has engaged the private sector in 36 PPP projects with a total value of US\$5.5 billion.<sup>48</sup> The projects contracted thus far comprise 24 transport projects, nine airports, two prisons, and a reservoir. Over 20 of these projects are already in the operational phase.

54. Chile's success with PPPs has been underpinned by: a solid institutional framework; well-developed procedures to identify, evaluate and tender projects; efforts to ensure adequate sharing of risks between the public and private sectors; and reforms to ensure the availability of private financing for projects. Nevertheless, the implementation of the PPP program has not been without problems. There have been a fairly large number of contract renegotiations; the government has accumulated significant exposure to PPPs; and the accounting and reporting of this exposure can be improved.

55. A track record of institutional stability and respect of contracts, together with a solid legal framework, have been essential for the development of PPPs. Crucial elements of the legal framework governing PPPs are the well-defined nature of PPP contracts, a clear description of each party's rights and obligations, and an effective mechanism for conflict resolution. The legal framework has facilitated the availability of private financing for PPPs by dispelling expropriation fears and providing protection of creditor rights. The government's ability to terminate PPP contracts is limited, and creditors' rights are secured in case of termination, since they have first lien on the proceeds from rebidding the project. The

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<sup>46</sup> Based on discussions with officials at the Ministry of Finance, Ministry of Public Works, Ministry of Planning, representatives of the financial and nonfinancial private sector, and academics. It also draws on Gómez-Lobo and Hinojosa (2000), Engel, Fischer, and Galetovic (2003), and Cruz, Barrientos, and Babbar (2000).

<sup>47</sup> This case study reviews the experience with PPPs under the legal framework provided by the Concessions Law of 1991. Private participation in ports and sanitation projects is not covered, as it is more akin to privatization (concessions in perpetuity without government guarantees) than PPPs.

<sup>48</sup> In the early 1990s, the Ministry of Public Works had estimated investment needs in infrastructure at US\$11 billion (20 percent of GDP), and private sector estimates put the economic cost associated with the infrastructure gap at about US\$1.6 billion a year.

transferability of contracts and step-in-rights for creditors are also fundamental for private sector participation in the financing of PPPs.

56. Adequate procedures to identify, evaluate, and tender infrastructure projects have also been key for the success of the program. Both the private and public sectors are allowed to identify projects to be developed as PPPs. Project proposals are thoroughly evaluated from a financial and social perspective and must undergo an environmental assessment. The Ministry of Public Works, in consultation with other agencies, assesses the profitability of the project itself and in relation to other projects. The Ministry of Finance is closely involved in the evaluation of projects from a macroeconomic and debt sustainability perspective. By law, all projects must be awarded in competitive auctions open to domestic and foreign firms. Projects are tendered with detailed design and complete engineering studies. The law gives the government ample room to adapt PPP contracts to each project's needs. This has allowed the government to improve the program over time, choose an adequate combination of bidding variables, and attempt to improve the allocation of risks between the private and public sectors.

57. Foreign exchange and demand risk are shared with the government, while construction and performance risk are fully borne by the private sector (except for expropriation cost risk which is borne by the government). The government shares foreign exchange and demand risk through the provision of guarantees, which the private sector obtains in exchange for sharing benefits on the upside. In the case of foreign exchange risk, the government guarantees a fixed real exchange rate. In the case of demand risk, the government provides a minimum revenue guarantee. Thus it compensates a road concessionaire if traffic or traffic revenue falls below a floor; in return, the concessionaire shares revenue with the government once it exceeds a ceiling. In 2002, the government introduced a revenue distribution mechanism through which it provides insurance to concessionaires against future demand volatility by changing the nature of the concession contract from fixed to variable term, with the duration of the concession being a function of the future demand levels. This principle was used with the Santiago-Valparaiso highway concession through an auction process where the winner making the bid requiring the least present value of revenue was awarded the concession, which lasts until that present value of revenue is collected.<sup>49</sup>

58. In addition to the legal safeguards for creditor rights discussed above, the provision of government guarantees has been essential to ensure private sector participation in the financing of PPPs. In fact, the minimum revenue guarantee, which is usually calibrated to cover 70 percent of projected revenue flows, has been the main influence on financing from capital markets. Most equity financing for PPP projects, usually 30 percent of project budgets, has been obtained from international firms participating in the projects. Bond

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<sup>49</sup> See Engel, Fischer, and Galetovic (1997 and 2001) for a discussion of least-present-value-of-revenue auctions.

financing has been more important in larger projects, which are constrained by the size of the domestic capital market. Bonds have been placed (domestically and abroad) with enhancements, the most important of which have been guarantees from financial insurance guarantors. The cost of this insurance is relatively high and has increased over time. Bank financing has been facilitated by an increase in lending limits for greenfield infrastructure projects to 15 percent of their capital and reserves. The public *Banco del Estado* has been active in financing PPP projects, but it has done so on commercial terms. Other domestic financing has been facilitated by allowing pension funds and insurance companies to invest in bonds issued by companies involved in PPPs.

59. Contract renegotiations have been instrumental in allowing the public and private sectors to react to unforeseen contingencies. The main reasons why contract renegotiations were needed were requests for additional work by the government and financial difficulties experienced by concessionaires. In the case of additional work requests, the law establishes limits to unilateral requests, and the government is required to provide compensation for them. Contract renegotiations stemming from concessionaires running into financial difficulties have attempted to solve liquidity but not solvency problems. In renegotiations, project budgets have on average increased by 15 percent of their original estimates. The government has limited the scope for opportunistic behavior by ensuring that the legal framework provides adequate incentives and by building reputation. By law, contract renegotiations cannot alter the financial balance of the original contract, although enforcing this provision is very difficult. So far, the government has not faced legal challenges from bidders in the original tender who argue that they would have submitted a better offer under the revised terms and conditions. Nonetheless, the government has been working towards minimizing the probability of contract renegotiations by improving project specifications and the tender process. The latter has focused on preventing the submission of financially unviable offers (low-balling) and the introduction of novel bidding mechanisms, such as the least-present-value-of-revenue approach.

60. The government has assumed significant fiscal commitments under PPP programs, but does not yet have full disclosure and reporting requirements. In Chile, budgeting and fiscal accounting rules do not require the disclosure of government contingent liabilities. In the case of PPP contracts, information on financial commitments entered into by the government must be obtained directly from contracts, which are public information. There are no further reporting requirements for commitments entered into through PPPs. The complexity of PPP contracts makes it difficult to determine the value of contingent liabilities.

61. Transactions related to PPPs are recorded in the budget on a cash basis, and financial commitments are not reflected in debt statistics. The only exceptions are *right-to-do-business* and *infrastructure* payments, which are accumulated in the off-budget *Infrastructure Fund* (Fundif), the resources of which are earmarked for subsidizing the operation of projects that are not financially viable. Subsidies are paid through the budget and the resources from Fundif are recorded as revenue when subsidies are actually paid. The balance of Fundif is public information, but it is not systematically reported.



62. The authorities are working on a comprehensive reporting scheme for financial commitments entered into through PPPs. In the meantime, initial progress has already taken place. The 2002 budget documents reported the maximum payments that could occur under the minimum revenue guarantees for the period 2000–25. The 2004 draft budget presentation was enhanced and included, for 2003–20, the expected payments under minimum revenue and foreign exchange guarantees, together with estimates of expected revenues from revenue-sharing agreements. The World Bank is assisting the government in defining the best measure of such exposure to include in budget documents.

### **Ireland**<sup>50</sup>

63. The PPP program in Ireland began in 1998. However, cooperation between the public and private sectors in providing public services is not new, there having been a long history of hospitals and schools being set up and run by religious orders, while toll roads have been operated by the private sector for a number of years.<sup>51</sup> A decision to pursue the PPP approach was taken in early 1998, prompted by an emerging infrastructure deficit, support from the Irish Business and Employers Confederation and the Construction Industry Federation, and a recommendation of the National Economic and Social Council. PPPs were then formally incorporated into public expenditure planning in the context of the National Development Plan 2000-06 (NDP), which was launched in December 1999.

64. Infrastructure inadequacies are a key obstacle to sustained economic growth. After a decade of relatively slow expansion, economic activity picked up in the 1990s, and from 1995 Ireland was among the fastest growing OECD economies. Increasing any country's stock of infrastructure in line with an extremely rapid pace of growth is difficult, and Ireland's real GDP rose by a cumulative 40 percent over the four years to 1998. As a consequence, an infrastructure deficit became increasingly evident during the second half of the 1990s. A recognition of the need for major investment to address this deficit, and a determination to ensure the efficiency of investment, led to adoption of the PPP approach.

65. Implementation of the PPP program was initially quite cautious. In June 1999, the government announced that the program would commence with eight pilot projects for schools, public transport, roads, and waste management. However, the NDP contained an

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<sup>50</sup> Based on material available on the Department of Finance Public-Private Partnership website (<http://www.ppp.gov.ie>) and on discussions with Pat O'Neill and Cormac Gilhooly of the Department of Finance.

<sup>51</sup> Most notably the Eastlink and Westlink bridges on the M50 in Dublin, which have been operated by the private National Toll Roads Company (NTRC) on a concession basis since 1984 and 1990 respectively.

ambitious target for PPP investment, and ministerial statements during the first half of 2000 made the political commitment to the PPP program clear.<sup>52</sup>

66. This pick up in enthusiasm for PPPs can be put down to three factors. First, there was quick buy-in on the part of all PPP stakeholders. Most importantly, the government made it clear that its social partners (and most notably employees and trade unions) would be consulted on the approach taken to selecting PPP projects.<sup>53</sup> Second, government finances were showing a strong improvement, which allowed the government to pay more attention to the efficiency benefits of PPPs than to just their fiscal advantages. And third, while the pilot projects certainly presented some institutional challenges that had to be overcome, an early conclusion was reached that they would be a success and that the PPP program would get off to a good start.

67. The PPP program has picked up fairly rapidly in recent years. As of mid-2003, 36 PPP projects with a capital value each in excess of I£5 (€6.4) million have been approved, as have around 100 other smaller projects. The vast majority of these are water projects. Only road projects are large.<sup>54</sup> Most projects are undertaken by the private sector in conjunction with local authorities. In addition, grants are made available to local authorities to help them develop small PPP projects outside the main infrastructure areas (e.g., business parks, cultural, leisure, and tourist facilities, affordable housing). Nevertheless, progress on a number of PPP projects has been slow, mainly because contracting (especially in connection with road projects) has taken longer than anticipated. Moreover, PPP investment at present accounts for only 5 percent of infrastructure investment, and current projections suggest that it will fall well short of the NDP target of over 10 percent. To facilitate the PPP process, the National Development Finance Agency has recently been set up to mobilize resources to finance PPP projects and to provide financial advice to government agencies seeking to form PPPs.

68. Accounting and reporting of PPP projects is fairly straightforward. Consultation with Eurostat revealed that the first batch of school projects did not involve sufficient risk transfer to the private sector, and investment in connection with these projects would count against

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<sup>52</sup> Of total infrastructure investment amounting to I£17.6 billion for 2000–06 (about 22 percent of annual GDP), I£1.85 billion was to be in the form of PPP projects.

<sup>53</sup> This was subsequently reaffirmed in *Framework for Public Private Partnerships in Ireland*, a statement of high-level principles for the conduct of PPPs, which was published in November 2001.

<sup>54</sup> The two largest ongoing public transportation construction projects, the Dublin light rail system (LUAS) and the port tunnel involve traditional public investment, and are therefore not part of the PPP program. The concession contract to operate the LUAS is one of the PPP program pilot projects.

the SGP deficit limits. This being the case, and pending a general decision from Eurostat on the classification of PPP assets, all PPP assets in Ireland have been classified as government assets. PPP investment is then recorded as capital expenditure in the general government accounts used for SGP purposes, but in the Exchequer accounts only if cash spending is involved. Unitary charges—the service payments under PPP contracts—are recorded as current expenditure.

## Mexico

69. Since the mid-1990s, a growing number of public investment projects have been financed under the PIDIREGAS scheme.<sup>55</sup> This scheme was established to increase investment in areas traditionally or legally restricted to the private sector, at a time when the government was facing limited public financing availability.<sup>56</sup> PIDIREGAS projects are restricted to strategic sectors (i.e., sectors of government monopoly), are contracted by public entities but financed by the private sector, and their expected cash flow must be sufficient to at least cover the resulting debt service. So far, projects have been undertaken in the oil and electricity sectors under one of two PIDIREGAS modalities: *direct* projects and *conditioned* projects.

70. Direct PIDIREGAS projects involve a contractual commitment by a public entity to purchase upon completion a specified asset that has been built by a private contractor. In principle, financing during the construction phase of direct PIDIREGAS projects should be provided by the private sector contractor. Upon completion, the public entity purchases the asset with long-term financing that it has to mobilize. In some projects, long-term financing is mobilized by the private contractor and taken over by the public entity when ownership of the asset is transferred. In the oil sector, the public sector oil company PEMEX has provided most of the initial financing for its projects. As a vehicle for the mobilization of the needed resources, PEMEX created a trust fund (the PEMEX Master Trust) which issues debt that is then on-lent to private sector contractors. Once the project is completed and transferred to the public sector, PEMEX assumes the servicing of the debt.<sup>57</sup>

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<sup>55</sup> PIDIREGAS is the Spanish acronym for “long-term productive infrastructure projects with deferred impact in the recording of expenditure.”

<sup>56</sup> Art. 25 and 28 of the Mexican Constitution establish strategic sectors which are exclusively reserved for public sector activity. The legal bases for the PIDIREGAS are: Article 18 of the Public Debt Law; Article 30 of the Budget, Accounting, and Federal Public Spending Law and Articles 38A, 38B, and 108 of its regulations; and Articles 154–166 of the Manual of Budgetary Norms. These laws can be found at <http://www.cddhcu.gob.mx/leyinfo/> and <http://www.hacienda.gob.mx>.

<sup>57</sup> As of end-June 2003, the PEMEX Master Trust had provided 80 percent of the US\$28.8 billion that have been disbursed in direct PIDIREGAS projects.

71. In the case of conditioned PIDIREGAS projects, the asset is not transferred to the public sector upon the completion. Rather, the government enters into a long-term service contract with a private partner. The government commits to purchase the underlying asset only if the private partner breaches the service contract or under specific circumstances of *force majeure*. So far, these types of arrangements have been mainly used in the electricity sector, where private ownership in generation and transmission is allowed under certain circumstances.

72. Budget documents include amortization and interest on the debt incurred in connection with direct PIDIREGAS projects that have been completed. The PSBR, the broader deficit measure introduced by the authorities in 2001, includes all direct PIDIREGAS investment expenditure (net of amortization) plus the accrued interest on direct liabilities (net of interest expenditure included in the budget). On the other hand, investment and debt service associated with conditioned PIDIREGAS projects are not included in the PSBR, nor accounted for as debt in public debt statistics. Outlays for these projects are recorded as operating expenses on a cash basis once services are provided.

73. PPPs in Mexico outside the PIDIREGAS program are modest. After the bailout of private road operators in the 1980s, road concessions are only now beginning to be reconsidered as a means of addressing the poor quality of the road network, based in part on the fact that rail concessions have been a moderate success. While urban water supply and sanitation are open to the private sector and candidates for PPPs, there has been little private investment in these areas. Most progress has been made with respect to telecommunications, ports, and airports, but this mainly takes the form of privatization.<sup>58</sup>

### **The United Kingdom<sup>59</sup>**

74. The first private financing proposals for public sector investment projects in the United Kingdom date back to the early 1980s. These were part of the Thatcher government's initial moves to reduce the role of the public sector in the economy. These proposals were motivated primarily by a desire on the part of some public enterprises and local governments to bypass expenditure controls imposed by the central government. In response, rules were put in place in 1981 requiring that public sector projects should be privately financed only if this is more cost effective than public financing, and that privately financed public investment should still be treated as public expenditure. These rules turned out to be an obstacle to private financing, and were abolished in 1989. However, private financing did not subsequently pick up. Against the background of mounting concern about the consequences

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<sup>58</sup> See World Bank (2003) for more details on private infrastructure investment in Mexico.

<sup>59</sup> Based primarily on HM Treasury (2003) and discussions with David Goldstone of Partnerships UK and Larry Pinkney of HM Treasury.

of a prolonged decline in public investment and maintenance spending for social and economic infrastructure, the Private Finance Initiative (PFI) was launched in 1992.

75. The expected flood of PFI projects did not materialize. The response was first to establish a number of government agencies to promote the scheme, and then to put in place a ‘universal testing rule’ requiring consideration of private financing for all public sector projects. The number of new PFI projects began to increase after 1995, despite an over-complicated institutional structure and delays in both PFI and conventional public investment projects because of the universal testing rule. The former was subsequently revamped while the latter was withdrawn. The number of new PFI projects peaked in 2000, but the number of projects in progress has kept on increasing. Annual PFI investment has also continued to grow, although it is now expected to stabilize as a share of total public investment at around 11 percent.

76. The PFI is now an established part of the U.K. government’s PPP program, which also comprises privatization and other forms of cooperation between the public and private sectors, including the provision of guarantees.<sup>60</sup> The defining features of the PFI are the following: PFI projects are viewed primarily as being about the provision of services, and not about the acquisition of assets; the private sector makes a long-term commitment to maintain assets and provide services, and the government makes a long-term commitment to procure those services; significant risk is transferred to the private sector; public sector investment projects are considered for PFI where they are likely to represent value for money (VFM), and where it meets the UK government’s criteria for efficiency, equity and accountability; a VFM test is used to determine whether a public sector project should be privately or publicly financed; and VFM should not be achieved at the expense of terms and conditions of employed staff. Private financing is judged to be best suited for large capital projects where the government can define service outputs that can be contracted, the private sector has the expertise to provide these services and to manage the associated risks, and assets and services can be costed on a ‘whole-of-life’ basis (which would be precluded, for example, by rapid technological change).

77. PFI projects in the United Kingdom are varied. They cover traditional public service assets (schools, hospitals, prisons, courts, police and fire stations, public housing, waste management facilities), transportation infrastructure, military equipment and support systems, information technology, and leisure centers. Transportation projects tend to be the largest, the modernization of the London Underground (which involve the biggest PFI contracts to date), the expansion of the motorway network, and major bridges being notable in this regard, although some military projects (for air-to-air refueling, airfield services, and flight training) are also large.<sup>61</sup> While these projects are undertaken in conjunction with

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<sup>60</sup> For more details about the PPP program, see HM Treasury (2000).

<sup>61</sup> The largest transportation project in the United Kingdom has been the Channel Tunnel Rail Link (CTRL), but the government has no contractual obligation to purchase services from the  
(continued)

central government (the Department of Transport and the Ministry of Defense, respectively), the majority of public service PFI projects involve local governments.

78. Accounting and reporting of the PFI is transparent.<sup>62</sup> Unitary charges are included in the current expenditure totals in the Financial Statement and Budget Report (FSBR) and in departmental accounts. The FSBR also contains estimates of capital spending by the private sector under signed PFI contracts, the capital value of PFI projects at preferred bidder stage that are expected to be signed within three years, and future payments to the private sector under signed PFI contracts, although the reported figures include some PPP transactions that are not strictly speaking PFI projects. The balance sheet treatment of PFI assets is determined by who derives the benefits from owning an asset and who bears the associated risks; at present, 57 percent of PFI projects by total capital value have completed assets that are included on the government balance sheet.<sup>63</sup> While there is full reporting of guarantees and other contingent liabilities in the United Kingdom, formal guarantees are not provided in connection with PFI projects. However, by committing to future payments under PFI

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private sector. Instead, the government guarantees bonds issued by CTRL consortia members. Major investment in National Air Traffic Services (NATS), which runs the air traffic control system, was achieved by selling part of NATS to a consortium of UK airlines. Both of these projects are PPPs (according to the U.K. definition), but they are not regarded as part of the PFI.

<sup>62</sup> Accounting for the PFI is guided by the Accounting Standards Board ‘Financial Reporting Standard 5 (FRS5)—Reporting the Substance of Transactions: Application Note F—Private Finance Initiative and Other Similar Contracts’, supplemented by Treasury Technical Note 1 (TTN1) on the use of this application note in the public sector. It is also subject to audit by the Comptroller and Auditor General or the Audit Commission (for local government and health sector projects) or other audit body.

<sup>63</sup> TTN 1 provides guidance on how to judge whether the government or the private sector “has an asset in the property”. This is discussed in Section VI. If the government is judged to be the owner of a PFI asset—U.K. terminology refers to the government ‘having an asset in the property’—the transaction is accounted for as a financial lease. TTN1 indicates that the fair value of the asset and a corresponding liability should be recorded on the government balance sheet, the asset should be depreciated, capital repayments and finance charges should be imputed, and unitary charges less capital repayments and finance charges should be reported as an operating expense. This treatment is reflected in relevant budget aggregates reported in the FSBR (except that imputed capital repayments and finance charges are not deducted from future payments under signed PFI contracts as reported in the FSBR).

contracts, the government assumes demand risk related to the ongoing need for the services.<sup>64</sup> Actual payments depend on project performance against agreed outputs.

79. The government generally regards the PFI to be well designed and managed. A rigorous approach is taken to assessing VFM, based on the government investment appraisal manual (the ‘Green Book’). There is effective risk transfer: the private sector typically assumes risk related to asset building and delivering contracted services, as well as demand risk when it has right of use of an asset; the government bears demand risk for services it purchases and by convention inflation risk. As noted above, where the government bears a large share of overall PFI risks, this is reflected in the government accounts. Outcomes are also viewed favorably. In particular, government external audit reports suggest that more than two-thirds of PFI projects have been delivered on time, and no cost overruns have been borne by the government; by contrast, less than a third of traditional public investment projects are typically delivered on time and within budget. Independent studies confirm that PFI projects offer significant cost savings over publicly financed alternatives.<sup>65</sup> Finally, while the PPP program has had some failures—the government provided assistance when CTRL, NATS, and two major privatized companies, Railtrack and British Energy, ran into severe financial difficulties—the PFI program has so far not required any project to be bailed out.<sup>66</sup>

80. The government is nonetheless seeking to improve certain aspects of the PFI. The VFM test for PFI projects has already been refined. In particular, the use of the same test discount rate to compare a PFI project with a publicly financed alternative has been discontinued.<sup>67</sup> Instead of using a test discount rate of 6 percent, which was the STPR plus a risk factor (included mainly to account for optimism bias), the “Green Book” now specifies an STPR of 3½ percent, and calls for risk to be systematically taken into account on a project-by-project basis. Looking forward, the priorities are: to strengthen procurement skills

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<sup>64</sup> One criticism of U.K. accounting and reporting practice is that the future service payments under PFI contracts amount to an explicit off-balance-sheet liability totaling £100 billion which has significant implications for future borrowing or taxes (see, for example, *The Times*, July 7, 2003). It has therefore been suggested by some financial market observers that these liabilities should be disclosed as such, rather than as a stream of future payments.

<sup>65</sup> One widely quoted report estimates an average saving of 17 percent (Arthur Anderson and Enterprise LSE, 2000).

<sup>66</sup> There still remain suspicions about the PFI program. For example, Spackman (2002) argues that the main attractions of the PFI are that it fits in with prevailing political ideology, and that private financing is off budget. This being the case, he suggests that there will there be insufficient recognition of the fact that the benefits attributed to the PFI could be achieved with public financing.

<sup>67</sup> This was judged by some to be a source of bias against PFI projects (see Grout, 1997).

in government, and it has set up a PPP, Partnerships UK, to do this and to help smoothen the PFI process in other ways; to develop standard PFI contracts, to ensure greater consistency in PFI projects, reduce transactions costs, and increase transparency; to further improve transparency through more comprehensive reporting; and to experiment with credit guarantee finance, an arrangement where the government borrows and on lends to the private sector company, with a guarantee of the loan from a private financier who takes on the project's risks. This arrangement attempts to reduce overall financing costs by saving the spread between the cost of private sector funding itself in the market, and the government's cost of funds.



### **Alternative Approaches to Accounting for Limited Risk Transfer**

81. As noted in Section VII, if PPPs result in limited risk transfer to the government, Eurostat and a number of countries classify PPP assets as government assets. While this is not the ideal way to proceed, for reasons also given in Section VII, since the accounting profession is likely to focus on refining the current approach to accounting for limited risk transfer, this appendix describes some alternative approaches to recording PPP assets on the government balance sheet.

82. The state of Victoria in Australia and the United Kingdom recognize that limited risk transfer might imply that a PPP is similar to a financial lease, even if it is not in fact such a lease. In this case, the accounting and reporting would be the same as for an actual financial lease. Thus the acquisition of an asset under a financial lease would be recorded in the operating statement at cost, together with incurrence of a lease liability to the private sector. The asset and liability would also be recorded on the government balance sheet. Subsequent depreciation of the asset, and interest and amortization payments on the lease, would then be recorded in the operating statement. However, all the entries in the operating statement and on the balance sheet would be imputed. If the financial lease transactions are replaced by loan transactions, the financial lease approach can be seen to be formally equivalent to treating PPP investment as public investment, which is the Eurostat practice.

83. While the **financial lease approach** clearly records PPP investment in the operating statement and PPP assets on the balance sheet from the outset, it has two major drawbacks. First, it leaves open the basis on which the private operator continues to use the asset to provide services; and, second, imputation can distort the fiscal accounts and complicate the interpretation of fiscal indicators.<sup>68</sup> With an alternative **lease and lease-back approach**, the government is assumed to obtain the PPP asset under a financial lease, exactly as above, but then to lease it back to the private operator under an operating lease. The private sector makes imputed lease payments under the operating lease to the government to cover the government's imputed interest and amortization payments to the private sector under the financial lease. This alternative approach addresses the issue of how to reflect the continued use of the asset by the private sector, but the number of imputed entries is larger than in the case of the financial lease approach. A **public investment and liability write-off** approach is a simpler alternative. With this approach, PPP investment is recorded as public investment, and it is assumed that the private operator continues to use the PPP asset because it is the legal owner. Since the private sector does not have a financial claim on the government in respect of the asset, the imputed financial liability of the government to the private operator

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<sup>68</sup> A further problem is that, from the standpoint of the national accounts, the transfer of the asset to the government balance sheet has to be matched by its removal from the private sector balance (even though it remains on the private operator's own balance sheet), otherwise it would lead to double counting of PPP investment in the national accounts.

can be written off, which involves very little imputation.<sup>69</sup> These three approaches are illustrated in more detail below.

84. Assume that the government enters into a PPP with a private operator for the construction and operation of an infrastructure asset. Based on a risk assessment, the asset is judged to be owned by the government, although legally it is owned by the private operator over the contract period. In Table 1, the asset is built in year 1 and, using the *GFSM 2001* fiscal reporting framework, it is recorded in the *Statement of Government Operations* as the acquisition of a nonfinancial asset costing 200. This entry is offset by the incurrence of an imputed financial liability of 200. An increase in net borrowing (or reduction in net lending) of 200 correctly attributes the aggregate demand impact of PPP investment to the government (since net lending/borrowing is the *GFSM 2001* counterpart to the overall balance). The net operating balance is zero, which indicates that this transaction has no impact on government net worth.

85. The asset is operated in year 2. For each of the three alternative accounting approaches—financial lease, lease and lease-back, and public investment and liability write-off—the PPP asset is depreciated by 150, and this is imputed in the *Statement of Government Operations*. Moreover, under the financial lease and the lease and lease back approaches, lease interest of 40 and amortization of 200 are imputed, while a lease payment to the government of 240 is imputed under the lease and lease-back approach.

- Under the **financial lease approach**, an increase in net borrowing occurs in year 2 to cover imputed interest of 40, but there is no government operation producing this higher borrowing and the associated aggregate demand stimulus. Note also that there is a large fall in net worth (which is reflected in the net operating balance), due to the fact that lease interest and amortization have to be matched by an imputed drawdown of financial assets.
- Under the **lease and lease-back approach**, the imputed lease payment to the government of 240 produces an increase in net lending (or a reduction in net borrowing) equal to the imputed amortization of 200, and an associated withdrawal of aggregate demand by the government in year 2, which again do not correspond to any government operation. But note that net worth increases by 50, which is the residual value of the PPP asset.
- Under the **public investment and liability write-off approach**, the imputed financial liability of 200 is written off in year 2 via an accounting entry in the *Statement of Other Economic Flows* (which records changes in net worth that reflect price and volume changes rather than transactions). There is no impact on net lending/borrowing and therefore no aggregate demand impact in year 2. Also, net

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<sup>69</sup> It is important to note that the government is not repudiating a liability, since neither the private operator nor the government acknowledge the existence of a liability.

worth increases by 50 (the net operating balance is -150 but this is offset by the 200 reduction in financial liabilities in the *Statement of Other Economic Flows*).

86. Table 1 is highly simplified, especially in collapsing asset operation into one year. To allow a smooth build up of the PPP asset on the government balance sheet over a number of years, these approaches require that the imputed financial liability is either paid down or written off faster than the rate at which the asset is depreciated.

Table 1. Accounting for Limited Risk Transfer

	Acquisition of Nonfinancial Asset (Year 1)	Financial Lease (Year 2)	Lease and Lease-Back (Year 2)	Public Investment and Liability Write Off (Year 2)
<i>Statement of Government Operations</i>				
<b>Revenue</b>			<b>240</b>	
Lease payment			240	
<b>Expense</b>		<b>190</b>	<b>190</b>	<b>150</b>
Depreciation		150	150	150
Interest		40	40	
<b>Net operating balance</b>		<b>-190</b>	<b>50</b>	<b>-150</b>
Net acquisition of nonfinancial	200			
Depreciation		-150	-150	-150
<b>Net lending/borrowing</b>	<b>-200</b>	<b>-40</b>	<b>200</b>	<b>0</b>
Net acquisition of financial assets		-240		
Net incurrence of liabilities	200			
Amortization		-200	-200	
<i>Statement of Other Economic Flows</i>				
<b>Other changes in net worth</b>				<b>200</b>
Changes in nonfinancial assets				
Changes in financial assets				
Changes in financial liabilities				-200
<i>Government Balance Sheet</i>				
<b>Net worth</b>	<b>0</b>	<b>-190</b>	<b>50</b>	<b>50</b>
Nonfinancial assets	200	50	50	50
Financial assets		-240		
Financial liabilities	200			
<b>Assumptions:</b>				
Asset cost=200 in year 1				
Depreciation=150 in year 2				
Interest=40 in year 2 under the financial lease and the lease and lease-back approaches.				
Amortization=200 in year 2 under the financial lease and the lease and lease-back approaches.				
Write-off=200 in year 2 under public investment and liability write-off approach.				

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