

## Chapter 1. A look at the challenges and governance of subnational public-private partnerships

*Worldwide, infrastructure needs are substantial. Subnational governments – cities, towns, and regions - play a vital role in the infrastructure landscape. Public-private partnerships (PPPs) represent an alternative to traditional government procurement with the potential to improve value for money. However, PPPs are complex and sometimes risky arrangements that require capacity to undertake them that is not always readily available in government. This chapter offers a general framework for considering subnational public-private partnerships in a multi-level governance context. It does so by drawing on existing literature and building on recent OECD work, incorporating relevant data, and integrating examples from the three case studies included in this report: the case of PPPs in France, the case of local Private Finance Initiative (PFI) projects in the United Kingdom, and the case of PPPs in the US state of Virginia.*

## Introduction

Worldwide, infrastructure needs are substantial. By one estimate, the world needs to spend approximately USD 3.3 trillion annually between 2016 and 2030 on roads, bridges, ports, power plants, water facilities, and other forms of economic infrastructure just to keep up with global growth (McKinsey, 2016). The OECD estimates that around USD 95 trillion of investments will be needed between 2016 and 2030 in energy, transport, water and telecommunications infrastructure to sustain growth, or around USD 6.3 trillion per year (OECD, 2017). Subnational governments – cities, towns, and regions - play a vital role in the infrastructure landscape. Important infrastructure assets and associated services are often the sole or shared responsibility of these governments. Water services, public lighting, waste management, sanitation, public transportation, roads (Plummer, 2002; Beato and Vives, 2003) as well as health and education are often the responsibility of regional and local governments. Ports and airports may also be subnational responsibilities in some countries (Kappeler et al., 2012). But subnational governments' resources, both in terms of money and know-how, may fall short of what is needed to meet demand efficiently and effectively. Partnerships can help narrow the gap. Public-private partnerships (PPPs) represent an alternative to traditional government procurement with the potential to improve value for money. However, PPPs are complex and sometimes risky arrangements that require capacity to undertake them that is not always readily available in government.

The 2014 OECD Recommendation on Effective Public Investment Across Levels of Government helps governments to assess their public investment capacity in a multi-level governance perspective and to set priorities for improvement. The Recommendation notes the value that the private sector can bring to achieving public investment goals. At the same time, it acknowledges that careful consideration of private sector involvement includes informed consideration of subnational governments' capacity for effective engagement in public-private partnerships. Depending on the circumstance, PPPs for infrastructure investment may be under- or overused due to knowledge limitations and governance capacity constraints. Understanding key challenges and building capacity are thus important for successfully using of PPPs where they add value – and for steering subnational governments toward other modes of delivery where appropriate.

This chapter offers a general framework for considering subnational public-private partnerships in a multi-level governance context. It does so by drawing on existing literature and building on recent OECD work, incorporating relevant data, and integrating examples from the three case studies included in this report: the case of PPPs in France, the case of local Private Finance Initiative (PFI) projects in the United Kingdom, and the case of PPPs in the US state of Virginia. The chapter begins by outlining the nature of public-private partnerships and their place on the continuum of options for private sector involvement in infrastructure. Discussion then turns to the prevalence of PPPs for tackling global infrastructure challenges, with specific attention to the case of subnational governments. It then examines the challenges that public and private actors face when implementing PPPs at the subnational level. The chapter concludes with a look at how different governance arrangements can assist subnational governments in addressing the challenges raised by PPPs in a decentralised context.

## PPPs: A vehicle for delivering infrastructure

### *Understanding PPPs*

There is no single, global definition of public-private partnerships. According to the OECD (2013a:96) “public-private partnerships (PPPs) are long-term contractual agreements between the government and a private partner whereby the latter typically finances and delivers public services using a capital asset (e.g. transport or energy infrastructure, hospital or school buildings). The private party may be tasked with the design, construction, financing, operation, management and delivery of the service for a pre-determined period of time, receiving its compensation from fixed unitary payments or tolls charged to users.” This definition includes both “pure” PPPs (where the main source of revenue is government payments) and concessions (where the main source of revenue is user fees) (OECD, 2013a).

PPPs fall along a continuum of approaches that involve the private sector in public service delivery and investment, and are distinguished by the degree of risk assumed by the private parties. At one end of the continuum is traditional procurement which involves some transfer of risk to the private parties but the scope is limited, does not include risks involved with service delivery (OECD, 2008), “and usually does not extend beyond the construction phase of the project” (Burger and Hawkesworth, 2011:5). At the other end of the spectrum is privatisation – the case in which the private sector assumes nearly all risk. PPPs fall between these two categories of private sector involvement. They generally combine the construction and operational aspects of infrastructure development (Burger and Hawkesworth, 2011).

The focus of this chapter is PPPs used to design, build, finance, and operate infrastructure assets. These assets contribute to “economic infrastructure” (which support economic activity and productivity such as road and rail networks, ports, public transportation, telecommunications, electricity, and water) or “social infrastructure” (which support public service delivery, such as government buildings, schools, health facilities, libraries, and social housing) (WEF, 2013). Historically, governments designed, financed, and operated these assets directly (Farrugia et al., 2008). With public-private partnerships, responsibility for assessing societal needs, setting investment objectives, approving projects, and project oversight remains with government – but private actors assume all or partial responsibility for designing, building, financing, and/or operating infrastructure assets (Farrugia et al., 2008).<sup>1</sup> In return for its role in a PPP, the private partner receives a stream of payments from the government, from users (user charges), or both.

PPPs present pros and cons to the public sector.<sup>2</sup> Generally, PPPs are justified when they are affordable<sup>3</sup> and produce greater value for money<sup>4</sup> than delivering public services or public investment through traditional means (OECD, 2008). Governments expect that private sector engagement will enhance government capacity to achieve its objectives by tapping the resources (money, technology, and knowledge) of the private sector. However, PPPs are not risk-free. As subsequent discussions will make clear, opting for PPPs exposes a government to potential downsides. These include, but are not limited to, sizeable financial obligations. Maximising the benefits and minimising the downsides of PPPs requires substantial public sector capacity.

### *PPPs for meeting infrastructure demand worldwide*

Evaluating the role of PPPs in meeting global infrastructure demand is challenging. As there is no single definition of a PPP, there are no definitive figures regarding the number and value of these arrangements worldwide. Moreover, databases that only include projects

with a minimum deal size may well omit subnational PPPs that tend to have lesser value. Figures from different sources are not comparable but instead provide a general indication of market size. Some studies (e.g. Verhoest et al., 2015; OECD, 2013a) suggest that PPPs play an important but modest part in meeting infrastructure needs. In a 2010 OECD survey of 20 countries, nine reported that PPPs constituted less than 5% of public sector infrastructure investment; seven reported the figure was somewhere between 5% and 10% (Burger and Hawkesworth, 2011). McKinsey (2016: 19) reports similar figures for “economies that make strong use” of PPPs for economic infrastructure. Looking within a sector, the Virginia case study in this report notes that PPPs accounted for approximately 2% of highway investments in the United States between 2007 and 2013.

Despite a growing proportion of infrastructure services that have been delivered through PPPs in the last decade, current levels of infrastructure investment taking place through PPPs is still moderate. Most OECD countries (83%) reported to have between 0% and 5% of public sector infrastructure investment taking place through PPPs in the last 3 years (2018 Capital Budgeting and Infrastructure Governance Survey). IMF estimates indicate that infrastructure investment via public private partnerships is still less than a tenth of public investment in advanced economies and less than a quarter of public investment in emerging market and developing economies.

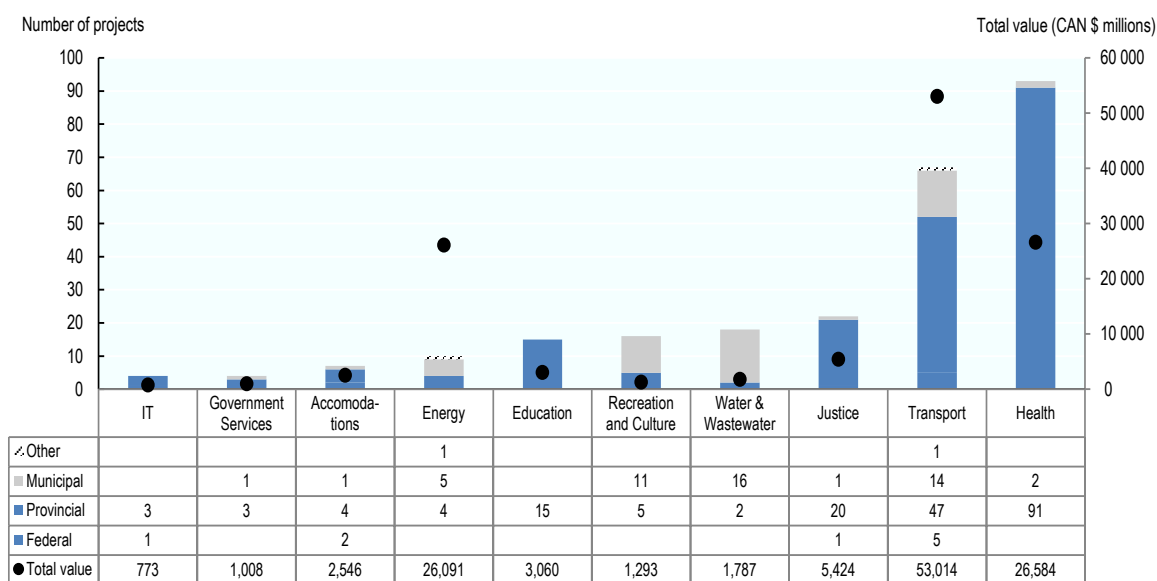
PPPs are used more extensively in some parts of the world than in others. Data from different sources suggest that PPP activity tends to be greatest in Europe, followed by the Americas, Asia-Pacific, Africa and the Middle East (PWC, 2013; Public Works Financing, 2013). Low-income countries tend to lag behind their higher income counterparts in PPP uptake, as “the quality of the enabling environment, the lack of demand ... for public-private partnerships (PPPs) and capacity to handle the public-private sector interface, are all seriously impeding private sector investments. The most immediate constraint, however, remains the lack of a pipeline of technically ready and financially viable projects” (World Bank, 2011: 9). Despite these hurdles, since 1990 there has been infrastructure investment in developing countries – albeit somewhat uneven – in the form of PPPs (broadly defined). According to the World Bank (2016a: 37), between 1990 and 2014 low- and middle-income countries received USD 1.44 trillion in commitments to finance infrastructure PPPs.<sup>5</sup> These data show that commitments rose between 1990 and 1997, falling off sharply after the Asian financial crisis through 2005. The pattern repeated itself between 2005 and 2012, with commitments rising seven-fold to a high of USD 158 billion, but dropping off rapidly in recent years as emerging markets slowed. A significant decline occurred in 2013. Since then, however, investment commitments in PPPs have grown, albeit slowly, reflecting the overall slowdown in key emerging markets, particularly Brazil and India (World Bank, PPIAF, 2015).

### ***PPPs at the subnational level***

Global figures on the number and value of PPP deals obscure the important role of subnational governments. As noted earlier, important infrastructure assets and associated public services are often the sole or shared responsibility of cities, town, and regions. In 2014, about 59% of public investment in the OECD area occurred at the subnational level (OECD, 2016). In some countries, some of these responsibilities are relatively new - emerging as a result of decentralisation reforms that shifted greater responsibility to regional and local levels, but not always accompanied by a corresponding increase in resources (Harper and Daughters, 2007; Plummer, 2002). At the same time, globalisation has affected regional and local economies, resulting in a need for new strategies and investments for regional and local growth (OECD, 2007; Harper and Daughters, 2007).

Even if PPPs play a modest part in meeting global infrastructure needs, where they occur many are contracted subnationally. In France, between 2005 and 2011, subnational governments granted 79% of *contrat de partenariat* (CP) (EPEC, 2012a). In Germany, subnational PPPs constitute approximately 80% of PPP investment (OECD, 2013b). About 90% of PPPs in Australia occur at the (subnational) state level (EIU, 2012). In Canada, too, nearly all PPPs are contracted subnationally (Figure 1.1). In the United Kingdom, local authorities procured the majority of PFI deals, particularly school projects (Figure 1.2). According to data provided by Park (2013), in Korea, subnational governments act as the competent authority for 74% of PPPs.<sup>6</sup>

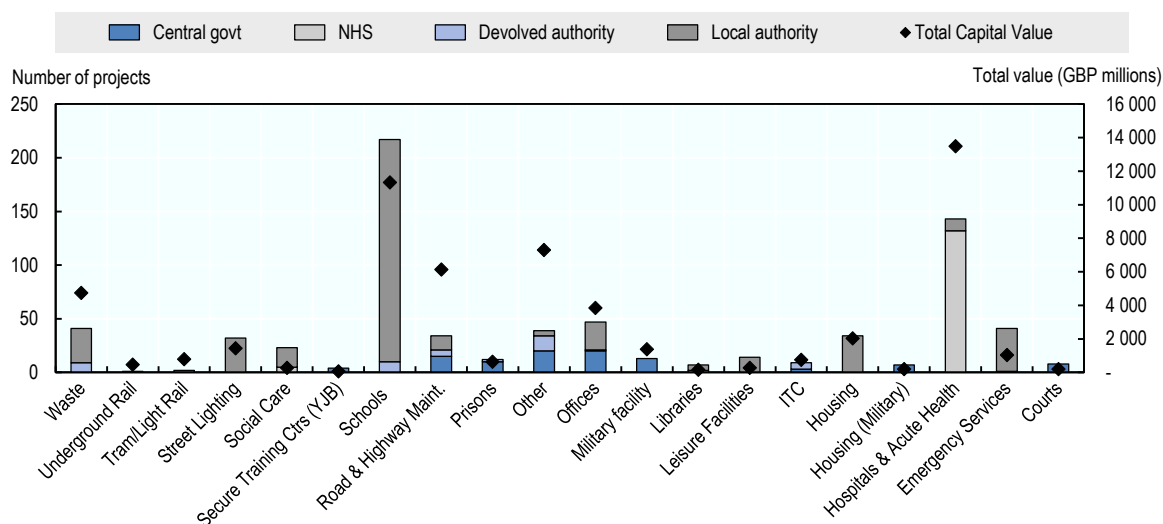
**Figure 1.1 PPPs by sector and level of government in Canada, as of 1 May 2017**



*Notes:* (1) Includes only costs of projects where costs have been finalised and released. (2) PPPs are at all stages of development, from RFQ/RFP to expired projects. No cancelled PPPs. (3) “Other” refers to (a) the Namgis First Nation and (b) to multiple levels of government in both the United States and Canada for a cross-border bridge project. (4) The database includes projects dating back to 1991 and includes some early projects that transferred risk from the public sector to the private sector that were considered PPPs at the time (e.g. service contracts, operations contracts, Design-Build-Own-Operate contracts) but do not fit the current definition of PPP - which requires a private sector financing component. Identified as an “other” model in the database, they are also included here.

*Source:* Author’s elaboration based on the Canadian Council for Public-Private Partnerships (CCPPP) Project Database, <http://projects.pppcouncil.ca/> (accessed 1 May 2017). Description of “other” model provided directly by the CCPPP.

**Figure 1.2 PFI projects by sector and level of government in the UK, United Kingdom, as of March 2014**



*Note:* Assignment to level of government is based on the “procuring authority” listed in the dataset. Current projects exclude expired or terminated projects and projects in procurement (see Mizell, 2018, this report). Here, “other” includes deals indicated as “other” in the dataset, plus two central government equipment deals and one local energy deal. “Housing” collapses HRA and non-HRA housing. “Schools” combines BSF and non-BSF projects.

*Source:* Author’s elaboration based on HM Treasury (2014), “Current projects as at 31 March 2014”, Excel.

While the total number of PPPs can be high at the subnational level, the value of individual contracts tends to be smaller than national ones. In France, the average contract value for local government CPs as of 2011 was approximately EUR 28 million versus approximately EUR 315 million for national ones (EPEC, 2012a). As the case study on the United Kingdom in this report reveals, the highest value Private Finance Initiative (PFI) contracts also tended to be awarded by the central government. The case study indicates that for current projects as of March 2014, 14% of the total number of projects was procured by the central government (with an average capital value of GBP 158.6 million).<sup>7</sup> By contrast, 60% of the total number of projects was procured by local authorities (with an average capital value of GBP 56.4 million). The pattern of high numbers of projects at the subnational level but lower project value is also the case for Korea (Park, 2013).

Even if subnational governments do not award the PPP contract, they can contribute to or detract from its effectiveness.<sup>8</sup> First, important elements of project execution, such as issuing licences or permits, may lie with subnational governments (UNCITRAL, 2001). Second, local knowledge plays an important role in tailoring capital investments to the local characteristics (Harper and Daughters, 2007). Importantly, regional and local investment needs often vary according to characteristics of the place. Globally, for example, urban needs are expected to be particularly acute. In 2014, 46% of the OECD population lived in predominantly urban regions (OECD, 2016). Developing countries face a rapidly changing, urbanising landscape. It is estimated that by 2030 about 60% of the global population will be living in cities (World Bank, 2016a). Urbanisation imposes significant infrastructure challenges for regional and local governments in areas ranging from transportation to sanitation to education.

Rural areas, in contrast to urban ones, often face declining population density making economies of scale difficult to achieve. A need for connectivity and access to markets, and the role of agriculture in the rural economy can translate into infrastructure demands that differ from urban areas.<sup>9</sup> Again, needs differ by level of development. Rural areas in developed countries are often saddled with aging infrastructure (see, for example, Blandford et al., 2008), while in some developing countries infrastructure for basic public services, such as clean water or electricity, may be absent or lag well behind urban areas (World Bank, 2016a; 2017). Informal connectivity to services such as water or electricity may dominate among the most poor (in both urban and rural areas). Subnational governments may be best placed to observe and respond to this dynamic when partnering for infrastructure improvements (Harper and Daughters, 2007).

### Challenges to PPPs in a decentralised context

Opportunities for private participation in subnational infrastructure investment co-exist with important challenges. The challenges described here arise from the multi-level governance context in which PPPs operate and the complexities of PPPs. “Multi-level governance” refers to a “dispersion of governance across multiple jurisdictions” (Hooghe and Marks, 2010: 17) which makes the goals, authority, and capacities of numerous actors relevant for PPPs. Actors may be arranged vertically (among different levels of government) or horizontally (across jurisdictions at the same level of government).<sup>10</sup> Such arrangements raise issues for the successful implementation of PPPs in key areas such as financing and funding, intergovernmental regulatory coherence, and cross-jurisdictional co-ordination and economies of scale. The complexities of PPPs and the skills required to undertake them raise questions regarding administrative capacity and accountability in the public sector. These issues, raised elsewhere regarding private sector participation in infrastructure (Beato and Vives, 2003) and PPPs at the subnational level (Harper and Daughters, 2007), echo the challenges of implementing public policy in a multi-level governance context generally (Charbit and Michalun, 2009; OECD, 2009a). Left unaddressed, they represent potential obstacles to successful PPPs. This section discusses the key challenges for PPPs in a multi-level governance context.

#### *Financing and funding*

A key domain in which multi-level governance matters for subnational PPPs is the financial one. The specific circumstances of subnational governments can affect the decision to enter into a PPP, the approach to (and cost of) financing a PPP, and the eventual payment for infrastructure availability and use.

#### *Choosing a PPP*

Decentralisation arrangements can lead to costly subnational responsibilities for which own resources are not enough. Subnational government often tap (and in some cases rely on) intergovernmental transfers to meet spending obligations. But resources may still be insufficient to accommodate needs for infrastructure development, operation, and maintenance without borrowing. In many cases, subnational governments often face important borrowing constraints (e.g. borrowing limits, weaker credit). Public-private partnerships can appeal to governments looking to work around these fiscal constraints.

Opting for PPPs in order to overcome tight budgets and circumvent fiscal rules - rather than seeking value for money and affordability - is not the right justification for a PPP, but it can be appealing. In the short-term, the private partner is usually responsible for the capital

expenditure, enabling a government to develop capital assets without paying for them immediately. The cost of infrastructure shifts to the future, potentially to a next generation of taxpayers, and beyond the electoral cycle of politicians (Musson, 2009). Fiscal constraints can thus create an incentive to use PPPs and in some cases to move investment “off the books”. However, risks to this approach are high.

PPPs create long-term ordinary liabilities for subnational governments that must be addressed and, depending on their design, contingent liabilities that must be accounted for lest they create fiscal risks. For example, in the United Kingdom until recently PPPs often took the form of “Private Finance Initiative” (PFI) contracts procured by local authorities, NHS Trusts, or central government departments (HM Treasury, 2012).<sup>11</sup> As of March 2014, there were 728 current projects with a capital value of GBP 56.6 billion (HM Treasury, 2014b). Total PFI unitary charge payments for 2015-16 were expected to amount to GBP 10.5 billion (HM Treasury, 2014b). In some cases, poor financial management and procurement of PFIs have left English NHS trusts in a precarious financial state (Mathieson, 2014).

Given a political willingness to consider private sector engagement, the decision to enter into a PPP involves substantial ex-ante analysis regarding the costs and benefits of PPPs, as compared to traditional procurement, over the life cycle of the asset. As recommended by the OECD Principles for Public Governance of PPPs, it is essential to “carefully investigate which investment method is likely to yield most value for money. Key risk factors and characteristics of specific projects should be evaluated by conducting a procurement option pre-test. A procurement option pre-test should enable the government to decide on whether it is prudent to investigate a Public-Private Partnerships option further” (OECD, 2012).

The technical capacity required for this analysis can be substantial, placing demands on a subnational government’s administrative capacities. As later discussion reveals, weak subnational administrative capacity can be problematic in the case of PPPs and will need to be reinforced in order to ensure that the decision to enter into a PPP is based not on a short-term desire to bypass fiscal constraints, but rather on accurate assessment of the lifecycle specificities of a given project.

### ***Financing PPPs at the subnational level***

A second financial concern for PPPs at the subnational level involves their financing. PPP financing often flows through a Special Purpose Vehicle (SPV) (Moszoro and Gasiorowski, 2008) in the form of non-recourse (or limited recourse) project financing. In this case, lenders and investors rely on the revenue generated by the PPP project to repay debts and earn a return on their investments (see Box 1.1). PPP design therefore matters greatly to ensure sufficient revenue once the asset is in operation. As debt makes up the majority of financing, access to credit is crucial – but subnational projects may find it more difficult to access credit than the national projects with which they may have to compete (von Thadden, 2012). “Non-recourse” debt tends to be high risk and as subnational credit ratings can be lower than that of national governments, debt costs can be higher (reflecting concerns that a subnational government may fail to meet its financial obligations). This in turn raises the issue of sub-sovereign guarantees (von Thadden, 2012). Such guarantees, in which the national government (or financial institutions) backstop subnational financial obligations either through “soft” or “hard” commitments can help to mitigate creditor payment risk, lower debt pricing, and strengthen value for money (EPEC, 2011). However, they can also encourage less-than-robust decision-making due to the belief that losses will be bailed out by the national government.



While the private partner generally makes the initial capital investment for the PPP, the public partner may contribute as well (see Box 1.1).<sup>12</sup> One form of support is capital grants. These grants can lower the necessary private sector capital expenditures and in turn reduce future payments made to the private partner (PPIAF and PWC, 2006). While some well-off subnational governments may have the ability to make a direct financial contribution themselves, capital grants often come from a higher level of government (which can make subnational PPPs subject to the rules and priorities of higher levels of government). In some cases, subnational PPPs have a hard time getting financing, even in the form of government support, due to their size. Commercial banks may be unwilling to lend without some form of government support, but such support may be available only for projects larger than a given threshold. A small project, such as a local water project, may thus go to market with very high rates of equity financing.<sup>13</sup>

### ***Paying for PPPs at the subnational level***

The third financial challenge for subnational governments involves paying for PPPs over the long-term. Private partners generally recoup their investment through a fee paid by the government partner, user-fees, or a combination of both. Government payments, for example, can be “availability payments” (based on asset availability at contractually defined specifications) or “shadow tolls” (payments/subsidy per unit of service) (World Bank Institute and PPIAF, 2012). Even where user-fees play an important role, a government (and perhaps even a higher level of government) may still find itself facing a financial obligation, for example if it made a “minimum revenue guarantee” and demand proves weaker than expected. In 2013, 90% of the PPPs reaching financial close in Europe involved availability payments; only six involved user fees (EPEC, 2014). The three case studies demonstrate a mix of payment models: PFIs in the United Kingdom relied on availability payments and Virginia’s transportation PPPs rely on tolling and direct government payments. France has a long history of concessions, which rely on user fees, but has more recently introduced PPPs using availability payments. With respect to government payments, concern relates to the subnational government’s ability to pay for the ordinary (and possibly contingent) liabilities discussed earlier. This involves a subnational government’s capacity to generate and have available revenue to cover its financial obligations to the private partners. Here, parties face issues regarding subnational expenditure and revenue assignment, tax autonomy (and fiscal rules), the efficiency of revenue collection, the availability of intergovernmental transfers to finance ordinary liabilities for PPPs, and overall financial management practices.<sup>14</sup> Subnational governments also face a so-called “surprise risk” resulting from a policy shift at the national level that affects their ability to meet their contractual obligations.<sup>15</sup> This might include, for example, policy changes that affect service pricing or the allocations of public funds to make availability payments (Saragiotis, 2009). According to the UK case study, the national government made funds available to English local authorities to help cover the cost of unitary charges for PFI projects. These “PFI credits” were a central feature of many local projects but were discontinued in 2010 as they were seen to create a bias toward PFI when evaluating procurement alternatives.

### Box 1.1. Basic principles of project finance for PPPs

Infrastructure PPPs frequently operate through a Special Purpose Vehicle (SPV), a legal entity set up to undertake the PPP project. Financing flows through the SPV generally in the form of “project finance”, in which lenders and investors rely entirely (“non-recourse” financing) or mainly (“limited recourse” financing) on the cash flow generated by the project to repay debts and earn a return on their investments.

Project finance comes from three main sources. Debt provided by lenders or capital market investors can be raised via bank loans, bond issuance, and multi-lateral agency/development bank loans. “Senior debt”, which gets priority in terms of repayment, usually constitutes 70-80% of financing. The financing structure may also include other forms of junior (subordinated) debt (e.g. “mezzanine” debt) which ranks between senior debt and pure equity in terms of repayment. Equity generally constitutes 20-30% of project financing. Equity comes from project sponsors, as well as contractors, financial institutions, and in some cases, government. A large part of the equity may be shareholder subordinated debt (shareholder loans) because the interest is tax deductible. Equity investors bear the primary risks in PPP financing and therefore demand a higher return on the funds they provide. Finally, PPP financing may also benefit from government support in order to attract financing and/or make them more affordable.

Finally, PPPs may involve credit enhancements to reduce the cost of debt and mitigate certain risks. As noted, some credit enhancements may come from government (see Table 1 below). Others may come from the sponsors and/or third parties. These can include: guarantees relating to the performance of the SPV or other participants’ contractual obligations; financing facilities that offer temporary liquidity to address specific risks (e.g. local currency depreciation); and insurance against certain project related risks (e.g. construction risks, loss of revenue, third party liability, environmental liability).

*Sources:* EPEC (2012), “Project Finance” in “The Guide to Guidance: How to Prepare, Procure and Deliver PPP Projects”, European PPP Expertise Centre, [www.eib.org/epec/g2g/annex/1-project-finance](http://www.eib.org/epec/g2g/annex/1-project-finance) (accessed 22 January 2014); World Bank (2016), “Government Support in Financing PPPs” (last updated 8 September 2016) and “Risk Mitigation Mechanisms” (last updated 31 October 2016), The Public-Private Partnership in Infrastructure Resource Center (PPPIRC), <http://ppp.worldbank.org/public-private-partnership/financing> (accessed 12 May 2017); Infrastructure Concession Regulatory Commission (2012), “6.4 Sources of Finance” in “PPP Manual for Nigeria”; PPIAF & PWC (2006), “Hybrid PPPs: Levering EU Funds and Private Capital”, January, [www.irfnet.ch/files-upload/knownledges/PWC\\_HybridPPPs\\_2006.pdf](http://www.irfnet.ch/files-upload/knownledges/PWC_HybridPPPs_2006.pdf); Farlex Financial Dictionary, (2012), “Take-Out Commitment”, <http://financial-dictionary.thefreedictionary.com/Take+Out+Financing> (accessed 9 December 2013); Yescombe, E. (2013), Principles of Project Finance, 2nd Edition, Academic Press, GoogleBooks.

**Table 1.1. Key instruments of government support for PPP project finance**

DIRECT SUPPORT	
Grants	The government may offer <i>direct financial assistance</i> to defray construction costs, to procure land, to provide assets, to compensate for bid costs, etc.
In-kind support	The government may offer <i>in-kind support</i> , e.g. waiving fees, costs and other payments that the private sector would otherwise need to pay to a public entity.
Equity	The government may be an equity investor in the SPV.
Debt	The government may provide loans.
Shadow tolls/ tariff subsidies	The government may pay shadow tolls for roads or top-up tariff payments.
CONTINGENT PRODUCTS	
Guarantees	The government may provide guarantees such as for debt, exchange rates, currency convertibility, demand for services (e.g. toll revenue), etc.
Indemnities	The government may agree to compensate the private actors in the event of non-payment by state entities, such as for revenue shortfall or cost overruns.
Insurance	The government may act as an insurer of last resort if certain risks (e.g. terrorism, force majeure, etc.) are otherwise uninsurable.
Hedging	The government may participate in hedging mechanisms to hedge against certain risks (e.g. currency exchange rates, interest rates or commodity pricing).
Contingent debt	The government may promise to lend money under different scenarios such as <i>take-out financing</i> (if the project can only obtain short-term debt, the government promises to loan funds at a given interest rate at a certain date in the future) or <i>revenue support</i> (a commitment to lend money to the project company to make up for revenue short falls in order to satisfy debt-service obligations).

*Note:* The World Bank includes intermediation of debt from commercial financial markets and project development funding as two other forms of government support for PPPs.

*Source:* Adapted from World Bank (2016), “Government Support in Financing PPPs”.

Where user-fees are involved, subnational governments must consider how they will be implemented, with an appropriately designed and regulated pricing policy. In many countries, governments subsidise consumer use of infrastructure. As Beato and Vives (2003) note, transitioning to private provision of infrastructure can mean an increase in user fees, which may be highly unpopular with consumers. They highlight that public discontent with user fees can raise political issues and risks that may discourage private participation.<sup>16</sup> Government subsidies may need to continue if consumers have a low ability to pay for services (Beato and Vives, 2003; WEF, 2012), again raising issues of the availability of public funds. A discussion of public objection to tolls for transportation projects can be found in the case study of Virginia (this report). The state has subsidised some tolls to promote policy priorities, such as carpooling (see Box 1.2).

Finally, launching a PPP involves costs for feasibility studies, contract design, and other project development requirements. According to the World Economic Forum (2013), for large (> USD 500 million) and medium-sized (> USD 100 million) projects, such costs may be 1-3% of total project costs. For smaller projects, the figures range from 3-4% of total costs, making infrastructure PPPs cost-effective only after they reach a certain size (WEF, 2013). Some countries have established independent project development funds or facilities to help cover these costs (World Bank, 2016c).

### Box 1.2. Mixing tolls and subsidies to promote public priorities in the US state of Virginia

“Virginia’s PPP programme works to develop public-interest projects that remain sufficiently attractive for private investment, even when public policy diverges from private-sector interests. For example, state policy encourages carpooling, typically exempting high occupancy vehicles (HOV) from tolls to the disadvantage of toll-collecting concessionaires. To accommodate both HOV policy and private financial viability, several Virginian PPP concession agreements include provisions ensuring lost-revenue compensation for concessionaires if/when HOV traffic exceeds a pre-determined rate. According to the I-95 Express Lanes agreement, for example, the state will pay 70% of the average toll for HOV vehicles exceeding 35-38% of total traffic flow (Virginia Department of Transportation, 2012: 13–14). For the first two quarters of operation in 2015, HOV traffic accounted for 32% of all traffic in these lanes, approaching the compensation threshold (Shenk, 2015a; 2015b). The 495 Express Lanes agreement includes a similar provision for HOV vehicles exceeding 24% of total traffic flow (Virginia Department of Transportation, 2007). Such provisions offer a mechanism to accommodate both public and private sector interests to produce a mutually beneficial project.”

*Source:* Quote from Gifford, J. and M. Transue (2018), “Public-Private Partnerships for Infrastructure at the Subnational Level of Government: Opportunities and Challenges in the Commonwealth of Virginia”, Chapter 4 of this report. The authors cite Virginia Department of Transportation (2012), “Comprehensive Agreement Relating to the I-95 HOV/HOT Lanes Project”; Shenk, S. (2015a), “I-95 Tolls Bring in \$9 Million in First Quarter”, [Fredericksburg.com](http://Fredericksburg.com), 25 April, [www.fredericksburg.com/news/transportation/i--tolls-bring-in-million-in-first-quarter/article\\_c198630e-fe30-5d82-be37-9fe4e0929232.html](http://www.fredericksburg.com/news/transportation/i--tolls-bring-in-million-in-first-quarter/article_c198630e-fe30-5d82-be37-9fe4e0929232.html), Shenk, S. (2015b), “I-95 Express Lanes Continue to Rake in the Money, Ringing up \$15 Million in the Second Quarter”, [Fredericksburg.com](http://Fredericksburg.com), 11 July, [www.fredericksburg.com/news/transportation/i--express-lanes-continue-to-rake-in-the-money/article\\_4913b520-593e-533e-8bb4-f1198c2ae7f5.html](http://www.fredericksburg.com/news/transportation/i--express-lanes-continue-to-rake-in-the-money/article_4913b520-593e-533e-8bb4-f1198c2ae7f5.html), Virginia Department of Transportation (2007), “Amended and Restated Comprehensive Agreement Relating to the Route 495 HOT Lanes in Virginia Project”.

### *Intergovernmental regulatory coherence*

A second domain in which multi-level governance has a notable impact for PPPs is regulation.<sup>17</sup> For a PPP to be feasible, private sector actors must be able to reconcile and comply with regulations at different levels of government, across sectors, and across fields of law (WEF, 2013). Complications emerge because legislation authorising the creation of PPPs and associated enabling regulations can exist at multiple levels of government. Depending on the country:

*... privately financed infrastructure projects may require the involvement of several public authorities, at various levels of government. For instance, the competence to lay down regulations and rules for the activity concerned may rest in whole or in part with a public authority at a level different from the one that is responsible for providing the relevant service. It may also be that both the regulatory and the operational functions are combined in one entity, but that the authority to award government contracts is centralised in a different public authority. For projects involving foreign investment, it may also happen that certain specific competences*

*fall within the mandate of an agency responsible for approving foreign investment proposals. (UNCITRAL, 2001: 28-29)*

Responsibility for issuing “licences and permits that may be needed in the course of a project” may be distributed across levels of government and agencies at the same level of government as well (UNCITRAL, 2001: 30).<sup>18</sup>

While subnational governments may have the authority to enter into PPP contract, laws and regulations at higher levels of government can constrain how they may do so. A Canadian municipality considering PPPs, for example, must determine if its authority to engage in a PPP is constrained by laws and regulations of the provincial or national government, if regulatory changes are required, and if this assessment differs across sectors and asset classes (Canadian Council for Public-Private Partnerships, 2011).<sup>19</sup> For European Union countries, national and subnational governments must take account of supra-national requirements, such as the EU’s procurement directive and directive on concession contracts (EC, 2014a; 2014b). The EU further regulates whether or not a given PPP should be considered “on or off-balance sheet”, which has implications for the public partner’s financing of the PPP (Petersen, 2011). PPPs that cross administrative boundaries may need to take account of the legal and regulatory environment in more than one country or region (e.g. in federal countries).

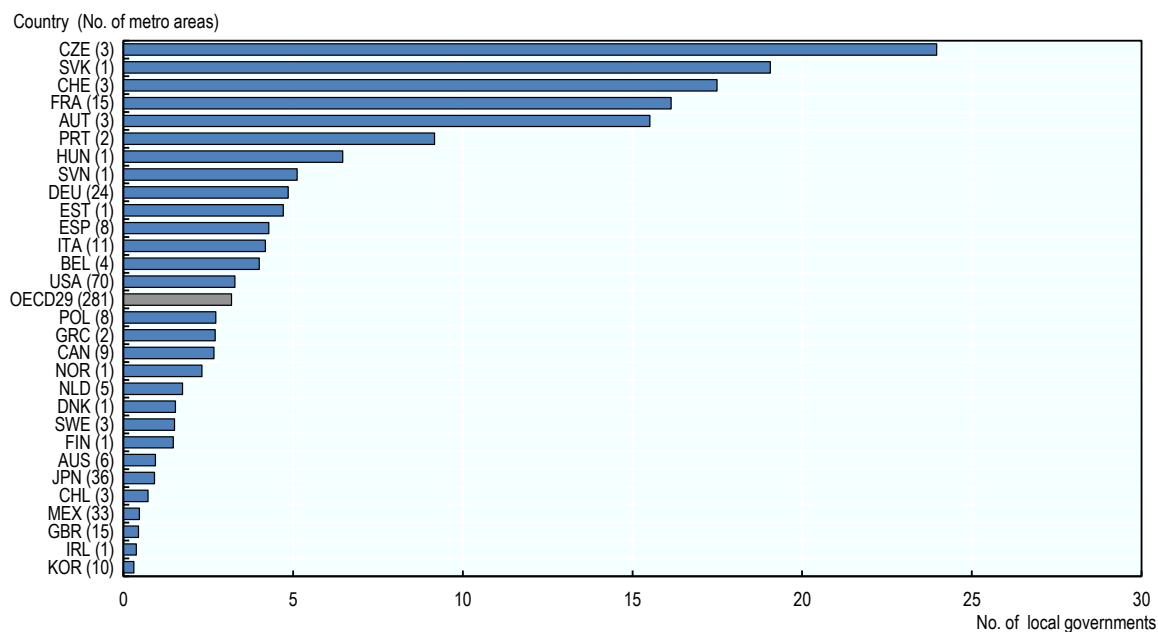
Examples of regulatory difficulties are not difficult to find. By one assessment, the PPP market in the United States, particularly for transportation projects, is not unlike “50 different countries” (Partnerships Bulletin, 2012: 5). The federal government has facilitated the use of PPPs through national legislation, federal guidance, innovative financing mechanisms, experimental pilot programmes, and information sharing (Rall et al., 2010). At the same time individual states promulgate their own statutes for PPPs (Rall et al., 2010; Istrate and Puentes, 2011; Richardson, 2010) – which affect not only what happens at the state level, but at the local level as well. This legislation varies in terms of sectoral coverage, permissible payment schemes, treatment of unsolicited proposals, use of non-compete clauses, the authority of lower level agencies, such as metropolitan transit authorities, to enter into PPPs and more (Istrate and Puentes, 2011). (See also a discussion of the US PPP market in the Virginia case study, this report). Another example comes from Brazil, where one assessment of the PPP market was generally positive but noted important challenges arising from “multiple legal frameworks between the states” (Partnerships Bulletin, 2012). While the Economist Intelligence Unit (2013a) found the overall institutional arrangements in Brazil to be generally coherent (vertically) across levels of government, it also highlighted the (horizontal) heterogeneity across states.<sup>20</sup>

### ***Cross-jurisdictional co-ordination and economies of scale***

Infrastructure investment often requires economies of scale. Moreover, the benefits of infrastructure investment are often not limited to a city or town, or sometimes even a region. Such instances can require co-ordinating investment across regional or municipal boundaries (Beato and Vives, 2003). Co-ordination can be beneficial for achieving economies of scale, for addressing spillovers, for encouraging synergies, and for ensuring that investments in neighbouring or otherwise linked jurisdictions do not work at cross-purposes (OECD, 2014; Mizell and Allain-Dupré, 2013). This is increasingly important in the face of the global trend toward urbanisation. Functional urban areas cover multiple municipalities (see Figure 1.3.). However, even a large metropolitan area may not fully capture the geographic boundaries of a PPP. An assessment of transportation PPPs in the 100 largest US metropolitan areas found that six projects covered multiple areas. The

Indiana Toll Road, for example, crosses seven counties – two in the Chicago metropolitan area, three in smaller metro areas, and two counties in non-metropolitan areas (Istrate and Puentes, 2011).

**Figure 1.3. Administrative fragmentation of metropolitan areas in OECD countries, 2014**



*Note:* Metropolitan areas are functional urban areas (FUAs) with populations exceeding 500 000 people. The OECD-EU definition of FUAs is not applied to Iceland, Israel, New Zealand and Turkey. The FUA of Luxembourg does not appear as its population is below 500 000 inhabitants. No. of local governments is circa 2011. Metropolitan population figures are estimates based on municipal figures for the last two censuses available for each country.

*Source:* “Figure 2.9: Administrative fragmentation of metropolitan areas, 2014” in OECD (2016), *Regions at a Glance 2016*, OECD Publishing, pg. 53, [http://dx.doi.org/10.1787/reg\\_glance-2016-en](http://dx.doi.org/10.1787/reg_glance-2016-en).

By expanding the geographic coverage for investment, horizontal co-ordination can also help overcome barriers to entry presented by small-scale projects (Musson, 2009) and a lack of qualified operators to undertake them (Beato and Vives, 2003). As Beato and Vives (2003) note, large (possibly international) infrastructure operators are less likely to find small subnational projects appealing due to the costs of establishing the PPP. Horizontal co-ordination across subnational jurisdictions may attract more qualified operators to a bidding process by increasing the size (and appeal) of the contract (Beato and Vives, 2003). Subnational governments in rural areas in particular may find that they are too small, have too little capacity, and/or face a dearth of competition to structure PPPs on their own.

Although co-ordination across jurisdictions at the subnational level is valuable, it is not always easy to do. Municipalities or regions need to work together and private sector counterparts need to work with them. While the case for such co-ordination may be clear, it can be hampered by differing political agendas (Beato and Vives, 2003), differing policy priorities, resource constraints, concerns regarding the distribution of costs or benefits from co-ordinated investment (OECD, 2014), or differing constituents’ views on private sector participation in public services. The structure of cross-jurisdictional collaboration for PPPs can also be complicated by issues regarding the extent to which different parties would be

responsible for any contingent liabilities or termination payments in the event of failure.<sup>21</sup> By one account, “US state and metro areas have been relatively slow to pursue public-private partnerships, in large part because of the complexity of deals that include multiple jurisdictions, companies, and even countries” (Brookings Institution, 2012).

### *Administrative capacity*

The technical demands associated with launching and sustaining a successful PPP are substantial (see, for example Joost and Levitt, 2009; WEF, 2013; Plummer, 2002; Harper and Daughters, 2007; Dutz et al., 2006). Not only must administrators understand the pros and cons of PPPs, and evaluate if and how to integrate their use into development plans, but they must have or be able to access the technical skills to evaluate and work with potential private partners, assess and assign risk, design a contract, and monitor (and respond to) project implementation. In many of these areas, subnational governments (particularly those with limited PPP experience, weak administrative capacity, or limited resources) may be at a disadvantage relative to the private sector. In fact, failure to bring PPPs to fruition, particularly in developing countries, is often due to a “project preparation gap”, a lack of well-prepared projects that reassure the private sector in terms of their “commercial and technical feasibility, the risk allocation, the public sector’s contractual commitment and capacity as well as the institutional and legal framework” (WEF, 2013: 8). Projects may suffer from delays, long preparation phases, costly due diligence for the private sector, cost overruns, and renegotiation due to poor project preparation (WEF, 2013). In addition, given the fact that subnational governments are less likely to accumulate a critical mass of projects over time, central governments should consider ways of leveraging its management capacity regarding PPPs to the benefit of subnational governments (OECD, 2012). The case study of PPPs in France focuses precisely on the challenges presented by the complexity of PPPs and the administrative capacity needed to launch and sustain them.

Bolstering public sector capacity is thus crucial for strengthening partnership activities. Unfortunately with respect to administrative capacity governments, particularly subnational ones, may find it difficult to recruit and/or retain sufficiently qualified staff (Mizell and Allain-Dupré, 2013; Harper and Daughters, 2007; Beato and Vives, 2003; OECD, 2014), especially in developing countries (WEF, 2013). Some subnational governments, such as large regions or metropolitan areas, may have sufficient human resources to dedicate to a PPP project in a sustained manner over time. Small and/or rural subnational governments, by contrast, may not (Harper and Daughters, 2007). The capacity gap between rural localities and large metropolitan areas can be substantial. Asymmetrical capacities between small local governments and large contracting companies can disadvantage subnational governments, a concern raised by the 2014 report on public-private partnerships by the French Senate (Sénat, 2014). While subnational capacity is frequently a hurdle for effective PPPs, it is worth noting that in some countries (e.g. Slovenia, Russia, Latvia, Bosnia Herzegovina) the capacity for PPPs, even if small scale ones, can be better subnationally than nationally (EIU, 2013c).

The availability of sufficient resources over the life of a project helps to determine whether a PPP is an appropriate strategy for a subnational government (Canadian Council for Public-Private Partnerships, 2011). This said, not all subnational governments need to possess the full range of technical skills in-house. Access to external specialists can help fill technical gaps<sup>22</sup> (Plummer, 2002), but core skills must exist in the public sector to capitalise on what PPPs offer (World Bank, 2006; Harper and Daughters, 2007) and adequately monitor private sector performance. Crucial is sufficient procurement capacity. The OECD reports that “the most prominent weakness of procurement systems identified by almost

half of OECD member countries is the lack of adequate capability, both in terms of shortage of procurement officials and the insufficient specialised knowledge of available technologies, innovations or market developments” (OECD, 2013a: 134). The situation is likely exacerbated for subnational governments.

### *Political commitment and accountability*

PPPs at the subnational level may prompt concerns regarding political commitment, accountability, and integrity. First, sustained and stable political commitment to (proper) use of PPPs is crucial to launch and sustain reforms, encourage investor confidence, and develop partnerships (WEF, 2013; World Bank, 2007; Harper and Daughters, 2007; Plummer, 2002). This point is echoed in the case study of France. However, differing political commitment to PPPs at different levels of government could potentially leave subnational governments (and the private sector) vulnerable to a shift away from supportive institutional arrangements for PPPs. Second, even if political commitment to PPPs exists, weak capacity to properly assess projects may allow local or regional politicians to pursue PPPs for political reasons rather than to improve the efficiency or effectiveness of public service delivery. Third, as noted in the French case study, the size and complexity PPPs can increase the risks of corruption and rent seeking. Public procurement, for example, is an acknowledged high-risk area for corruption. The complexity of PPPs can potentially weaken transparency and oversight in this area. As an example, in examining the environment for PPPs in Mexico, the Economist Intelligence Unit (2013b) noted efforts to strengthen PPP capacity at the subnational level. Yet, it also found, with respect to private participation in water infrastructure:<sup>23</sup>

*Decisions are typically influenced by politics, tariffs do not cover the cost of conserving water systems, and the dynamics for private-sector participation remain complicated. At the municipal level, the degree of transparency when private-sector participants are involved is low. Indeed, in many cases projects are negotiated with the private sector, and the municipal councils do not exercise an adequate supervisory role. Contract changes are common, but without safeguards for equity or transparency. In the case of water services, the resolution system depends on the terms of each contract. If a municipality enters a concession directly, disputes are resolved by tribunals. However, most water PPP projects are contracted by municipal companies, which have the power to establish ad hoc arbitration schemes. Processes are not competitive and contract award criteria are highly subjective. (EIU, 2013b)*

Finally, weak capacity of subnational governments to narrow information gaps with the private sector as well as low levels of competition in the PPP market (such as in rural areas) can leave subnational governments dependent on a single or handful of private partners, vulnerable to capture, and/or open to post-award renegotiation where they may find themselves at a disadvantage.

## Supporting subnational capacity for PPPs

How might governments support subnational implementation of public-private partnerships? Practitioner literature (e.g. UNECE, 2008; OECD, 2012) makes a case for “good governance” of PPPs, with specific attention to formal institutional arrangements that strengthen their quality and the administrative capacity to undertake them. This literature covers multiple dimensions such as political and policy commitment, regulatory



frameworks, budgetary rules, institutional arrangements, and administrative tools. This guidance generally has a national orientation. What is often missing is a comprehensive discussion of how different mechanisms can be employed to address the challenges that subnational PPPs present. This section aims to narrow this gap in the literature by reviewing some of the tools available to policy makers and practitioners, considering how these measures could address PPPs in a decentralised context. To do this, it uses the categorisation of measures proposed by Verhoest et al. (2015) as a jumping off point, adding some measures that the authors did not include. The authors cluster different mechanisms into three categories<sup>24</sup>: 1) Policy and political commitment, 2) Legal and regulatory framework, and 3) PPP-supporting bodies – to which this discussion adds 4) Financial support and budgetary arrangements.

### ***Policy and political commitment***

As the previous discussion made clear, a lack of political commitment can hamper efforts to launch and sustain a PPP programme. Verhoest et al. (2015) identify three measures of “policy and political commitment”: stable, articulated support from political parties, the existence of an up-to-date PPP policy document, and/or presence of PPP programme. For all levels of government, political commitment and a clear policy framework are important for defining PPPs as an alternative to traditional procurement, articulating the framework within which PPPs should occur, and “directing and coordinating cooperation between interested sectors and government institutions” (Verhoest et al., 2015). 5) Political leadership helps ensure public awareness of the trade-offs associated with PPPs, which is a key ingredient for successful stakeholder consultation and engagement throughout the investment cycle (OECD, 2012). Stakeholder engagement and transparent processes are important for clarifying the expected benefits of the project, promoting accountability, and addressing third party concerns.

For subnational governments, clear policies at the central level can illuminate higher-level priorities, help direct support to lower levels, buoy the confidence of private sector (Harper and Daughters, 2007) and reinforce policy coherence across levels of government. For example, in Australia the national and subnational governments work co-operatively through the National Public Private Partnership Forum and more specifically through its PPP Working Group to ensure policy coherence across levels of government. The Working Group spurred development of the National PPP Policy and Guidelines, prepared by Infrastructure Australia and endorsed by the Council of Australia Governments in 2008 (Infrastructure Australia, 2008; 2014).

### ***Legal and regulatory framework***

The legal and regulatory framework within which subnational PPPs occur can be enabling or disabling, depending on its complexity, comprehensiveness, and degree of coherence across levels of government. Proper legislation can improve government capacity for standardised, favourable, and transparent treatment of PPPs, as well as appropriate treatment of unsolicited proposals. In doing so, it can make private participation more appealing to private partners and to potential creditors (Richardson, 2010). For Verhoest et al. (2015: 5), “this dimension relates to the presence and context of a specifically stipulated legal framework for PPP (sic), and relevant provisions in PPP-related and public procurement regulation.” PPP-specific legal arrangements can help clarify how PPPs are to be implemented (e.g. eligible sectors, roles and responsibilities, payment mechanisms, dispute resolution procedures), whereas laws and related regulations introduced without PPPs in mind can leave practitioners unclear on important aspects of implementation

(Dutz et al., 2006). According to the case study on the Commonwealth of Virginia, the state's flexible statutory framework "supports private sector participation, accountability, and transparency without inviting political interference" and "presents few barriers to entry for private parties."

However, the mere presence of PPP-specific laws and regulations is insufficient for supporting subnational PPPs. As noted earlier, the coherence of these laws and regulations across levels of government, and across subnational jurisdictions, deserves attention. Looking internationally, in 2014 the EU reformed or introduced directives on public procurement (2014/24/EU and 2014/25/EU) and concession contracts (2014/23/EU), partially in response to the heterogeneity or absence of key legislation in member countries. For example, with respect to concessions, a Commission assessment found that "the rules and practices of Member States concerning the award of concessions are very different... the principles of the Treaty are not understood and applied in the same way everywhere ... [and] many EU Member States do not have rules on concessions at all" (EC, 2014a). With respect to procurement, local and regional authorities should benefit from simplified procedures and flexibility associated with the revised directives (EC, 2014b). National efforts to improve coherence include Colombia's 2012 PPP law, which introduced "obligatory procedures at national, regional and local levels for preparing PPP projects", a move expected to "improve general coordination and processes for projects at all levels of government" (EIU, 2013a: 14).

### *PPP-supporting tools*

Verhoest et al. (2015) cluster a handful of supportive mechanisms into the category "PPP-supporting bodies". However, existing literature makes numerous recommendations for strengthening PPP design, financing, and implementation via mechanisms that are not restricted to "bodies" and are, perhaps, better described as "tools".

"PPP units" are seen as a useful way to bolster government capacity to structure and implement PPPs (see Box 1.3). Generally viewed as a "good practice" for PPP programmes (UNECE, 2008), PPP units are dedicated public entities that can act as a comprehensive tool for strengthening capacity. Most, but not all, PPP units are national, often located in a cross-sectoral ministry, such as a ministry of finance or planning. PPP units can also exist in line ministries or at an arms-length from government (Dutz et al., 2006; OECD, 2010). The role of a national PPP unit with respect to subnational governments will depend on intergovernmental fiscal and legal relations (Dutz et al., 2006). While most PPP units are national, numerous countries have units at the subnational level. In federal countries they are often established at the regional (state/provincial) level and often pre-date a national unit (OECD, 2010). They may also exist at both levels of government. The Virginia case study describes the value of the Virginia Office of Public-Private Partnerships, which develops and implements transportation PPPs. In the United Kingdom and France, PPP units have evolved or been incorporated into entities with a broader remit (see Box 1.3 and the UK case study).

**Figure 1.4. The role of national PPP units to strengthen the capacities of subnational governments**

Do national PPP units or Infrastructure units in central governments strengthen the capacities of subnational governments (municipalities, regions, states) to design and run PPP or infrastructure projects in general?

Yes	No
Australia	Austria
Czech Republic*	Belgium
France	Chile
Germany	Denmark
Ireland*	Estonia
Italy	Finland
Korea	Hungary
Spain	Japan
Turkey*	Luxembourg
United Kingdom	New Zealand
	Norway
	Slovenia
<b>Non-OECD</b>	Sweden
Philippines	Switzerland
South Africa	Mexico**

Note: Total respondents: 26; \* without a mandate, \*\* not answered

Source: OECD Survey of Infrastructure Governance (2016).

### Box 1.3. PPP units: A comprehensive tool

The specific role that PPP units play in supporting subnational capacity for PPPs will depend on the functions the PPP units undertake. PPP units tend to perform some combination of five main functions: policy formulation and co-ordination, gate keeping and quality control, technical assistance, education and capacity development, and PPP promotion (OECD, 2010; Istrate and Puentes, 2011). Each can contribute to the challenges presented by subnational PPPs.

A PPP unit can assist with intergovernmental regulatory and policy coherence by helping to clarify and streamline the legal interface that private actors confront when considering PPPs. Technical assistance can bolster the quality of the tendering process and contract documents, strengthening the position of the public sector in negotiating with private sector counterparts. By developing and encouraging the use of standardised documents and processes, a PPP unit can also help reduce transaction costs for both public and private partners (World Bank, 2006; Istrate and Puentes, 2011). A PPP unit can share information regarding good practices, opportunities, and challenges to address. Employed horizontally, this function can bridge silos, transferring lessons and experiences across sectors (World Bank, 2006) and among subnational governments. Employed vertically, information sharing can narrow knowledge gaps between levels of government.

PPP units can also address some financial challenges subnational governments confront with PPPs. Regarding the decision to enter into a partnership, a PPP unit can play a quality control function, acting as an early reviewer of PPP project proposals and ensuring that a PPP's fiscal impact is clear (Istrate and Puentes, 2011). South Africa's PPP Unit was created, at least in part, to address budgetary concerns regarding PPPs (Istrate and Puentes, 2011; World Bank, 2007). In

addition to technical assistance for contract preparation and risk allocation, some PPP units channel financial support for project development costs or to cover subnational governments' financial contribution to PPPs.

In Portugal, a special unit of the Ministry of Finance (UTAP, *Unidade Técnica de Acompanhamento de Projetos*) has been since 2012 in charge of the renegotiation process of central government PPPs but also, since 2016, provides technical assistance to and monitors all PPPs, including municipal ones.

The major contribution of PPP units to subnational governments is to bolster their administrative capabilities. For large urban areas they can help negotiate complex infrastructure projects. Likewise they can backstop capacity in smaller municipalities that encounter PPPs infrequently and have little opportunity to learn by doing. PPP units can support the planning stage by helping to determine which services to expose to private participation, supporting value for money assessment to determine when a PPP is the most appropriate delivery mode, and understanding a PPP's fiscal implications. At the implementation phase, PPP units can narrow gaps in technical capacity among subnational governments, streamline procedures by disseminating standard contracts, concession agreements, and detailed procedures for identifying, evaluating, and procuring PPPs (World Bank, 2006). Standardised materials can help governments avoid problems with contract design, ensure the contracts fulfil standard requirements, and protect the public interest (Istrate and Puentes, 2011). Higher levels of government can opt for advisory rather than mandatory guidance in order to minimise the risk that standardisation constrains flexibility and innovation at the subnational level (World Bank, 2006). A PPP unit, like Partnerships Victoria (Australia), can support the procuring agency with technical demands (i.e. preparing a public sector comparator), assist with risk mitigation, help with dispute resolution, and support contract management (OECD, 2010).

#### **What characterises effective PPP units?**

Existing literature provides little guidance regarding what makes PPP units effective with respect to subnational capacity specifically, but some lessons do emerge from case study research regarding characteristics of effective PPP units generally (World Bank, 2006; 2007).

First, PPP units do not guarantee successful PPP programmes. On the one hand, often countries and subnational governments with PPP units have more robust PPP programmes than those without. In Canada, for example, the majority of transportation PPPs are concentrated in the provinces of British Columbia and Ontario, early adopters of PPP units (Lammam et al., 2013). In Germany, North-Rhine Westphalia (NRW) was the first Land to establish a PPP unit in 2001 (OECD, 2010) and it continues to lead in terms of construction PPPs at the regional and local levels (in terms of volume and value of deals since 2002) (Partnerschaften Deutschland, 2014). Yet, on the other hand, PPP units also exist in many countries without robust PPP programmes, or have multiple units with mixed results. India, for example, has multiple state-level PPP units with “different track records in terms of taking PPPs successfully to the market” (World Bank, 2006).

Second, countries with poorly performing institutions may have a poorly performing PPP unit, handicapped by the same underlying problems that undermine existing institutional performance (World Bank, 2007). Institutional reforms may need to precede or coincide with the creation of a PPP unit for it to be successful. In general, research suggests that PPP units are more likely to be effective where there is: 1) political support for the PPP programme the unit will support; 2) transparent, competitive procurement systems; and 3) generally co-ordinated machinery of government (World Bank, 2007).

Third, there is no “one size fits all” PPP unit (World Bank, 2007; Istrate and Puentes, 2011). Units tend to perform better when their authority matches their mandate, and their mandate targets the weaknesses in existing capacity to develop and implement a PPP programme (World Bank, 2007). This suggests the importance of thoughtful assessment of what factors pose the greatest constraints on subnational capacity for PPPs, evaluating which constraints are best addressed by reform, and which can be addressed through a PPP unit - and tailoring the design of and/or services offered by a unit accordingly. With respect to design, the World Bank study (2007) suggests a lack of formal authority to compel agencies to use a unit’s services or comply with good practice guidance (e.g. a “center of excellence” with no authority) can render a PPP unit relatively ineffective.

Finally, backstopping and cultivating subnational capacity means that PPP units must be adequately staffed. Information made available by the World Bank (2007) suggest that the more successful PPP units appear to rely mostly on staff (e.g. Korea’s PIMAC, Partnerships Victoria, Portugal’s Parpublica) with some recourse to consultants. Staff stability is important for maintaining capacity and continuity. High turnover, such as observed in the past at the PPP Centre in the Philippines, can weaken effectiveness (EIU, 2012).

Importantly, PPP units are neither a panacea for subnational capacity nor are they risk-free. Conflicts of interest can arise if PPP units aim to increase deal flow and also contribute to project screening. There may be distorted incentives to seek out and approve PPPs. The potential for difficulty may be higher when the units are structured as public-private joint ventures and where “success fees incentivise the closing of transactions.” (World Bank, 2006: 8). Likewise, when PPP units act as a gatekeeper, allowing only certain projects to move forward at various stages of the procurement process, regulatory controls, transparency, and accountability measures are important “to ensure honest practices and protect government interests and limit exposure to liability” (Colverson and Perera, 2012). Finally, the mere creation of a PPP unit can bias actors toward PPPs over other procurement methods (Colverson and Perera, 2012). Ensuring robust analysis of individual projects is important to counter any such bias.

*Sources:* OECD (2010), *Dedicated Public-Private Partnership Units: A Survey of Institutional and Governance Structures*, OECD Publishing, <http://dx.doi.org/10.1787/9789264064843-en>; Istrate, E. and R. Puentes (2011), “Moving Forward on Public Private Partnerships: US and International Experience with PPP Units”, *Brookings-Rockefeller Project on State and Metropolitan Innovation*, Dec 2011; Colverson, S. and O. Perera (2012), “Harnessing the Power of Public-Private Partnerships: The role of hybrid financing strategies in sustainable development”, *International Institute for Sustainable Development*, February; EIU (2012), “Evaluating the environment for public-private partnerships in Asia-Pacific: The 2011 Infrascop”, *Findings and methodology*,

Economist Intelligence Unit; World Bank (2007), *Public-Private Partnership Units: Lessons for their Design and Use in Infrastructure*, October 2007; Dutz, M., Dhingra, I., Harris, C., and C. Shugart (2006), “Public Private Partnership Units”, Public Policy for the Private Sector, Note 311, September; World Bank (2006), “India: Building capacities for public private partnerships”, Sector Report No. 36875, June; Partnerschaften Deutschland (2014), “Überblick zu ÖPP-Projekten im Hoch- und Tiefbau in Deutschland”, Berlin, 28 February; Lammam, C., MacIntyre, H. and J. Berechman (2013), “Using Public-Private Partnerships to Improve Transportation Infrastructure in Canada”, Fraser Institute, May.

PPP units can promulgate or be accompanied by other measures to strengthen the environment in which PPPs operate. Verhoest et al. (2015) include the availability of 1) procedures appraising and prioritising projects, and 2) standardised contracts and a standardised model for PPPs.<sup>25</sup> The former category includes existence of standard *ex ante* evaluation instruments, use of standard *ex ante* evaluation in PPP projects, third party scrutiny and approval of PPP projects prior to tender, and third party scrutiny and approval prior to contract signature. Standardised contracts are a key feature of the UK’s experience with PFI projects. To these measures, one could add other tools with potentially positive impacts for PPPs:

- **Professionalising public procurement** can strengthen capacity to undertake procurement generally, and potentially reinforce proper treatment of PPPs. As of 2010, 19 of 31 OECD countries recognised procurement officials as a specific profession (OECD, 2013a). Eleven countries have a formal job description for procurement officials, eight have implemented specific certification or licensing programmes, and five have integrity guidelines (e.g. Codes of conduct) for procurement officials (OECD, 2013a). The degree to which these mechanisms extend to and affect hiring at subnational levels of government is not clear;
- **Performance indicator systems** can strengthen PPP design and implementation by revealing information throughout the investment cycle. Performance indicators for PPPs can be adopted at both the national and subnational levels, thereby narrowing information gaps among levels of government (OECD, 2009b) and between public and private partners. Made publicly available, they strengthen transparency and accountability<sup>26</sup>;
- **Peer-to-peer knowledge exchange platforms for subnational governments** can be used to share good practices and to benchmark local experience in a range of areas, including PPPs. In its review of PPPs, the special Panel on Public-Private Partnerships of the Transportation Committee in the US House of Representatives “encourage[s] states interested in enacting P3 authorising legislation and pursuing P3 procurements to coordinate with other states to share lessons learned by early adopters and consider establishing stand-alone state P3 offices that look beyond only transportation and develop regional partnerships to achieve common infrastructure objectives” (US HR, 2014: 13);
- **Mechanisms for inter-municipal and regional co-ordination** can be used to examine potential synergies arising from co-ordination of public investment and PPPs specifically. Provisions can be made for bundling across sectors (UNECE, 2008; Plummer, 2002) or jurisdictions to encourage economies of scale or attract operators, as well as horizontal unbundling to encourage competition and benchmarking (e.g. dividing a large area, such a city, into zones and arranging contracts for each area, Plummer, 2002); and

- **Assistance targeted to subnational PPP capacity** can help boost the design and results of these partnerships. The United Kingdom, for example, saw the creation of the “Public Private Partnership Programme” (4ps) in the mid-1990s to support PPP development at the local level in England and Wales (see the UK case study). It subsequently evolved into Local Partnerships, a joint venture between the Local Government Association and HM Treasury, which continues to support local authorities. In addition to within-country support, some subnational governments may be eligible for assistance from supra-national organisations (e.g. the Public-Private Infrastructure Advisory Facility’s Subnational Technical Assistance program)<sup>27</sup>.

### *Financial support and budgetary arrangements*

Previous discussion has underscored the budgetary constraints that can spur consideration of PPPs, as well as the challenges and risks associated with the ordinary and contingent liabilities PPPs create. Some of the tools already discussed can play a positive role in this area. They include the existence and use of standard *ex ante* evaluation instruments, as well as third party scrutiny and approval prior to tender and/or before contract signature (which can reduce the risk of a pro-PPP bias). To these tools, other good practices can reinforce financial arrangements for PPPs. They include, for example, review by the Central Budget Authority to “ensure that the project is affordable and the overall investment envelope is sustainable” and disclosure of “all costs and contingent liabilities” in budget documentation (OECD, 2012). In 2011 the United Kingdom introduced its Whole of Government Accounts, full accruals based accounts covering the public sector that categorise PPPs largely on balance sheet, thereby minimising the accounting incentive to opt for PPPs (see the UK case study).

Direct financial support can also enhance subnational governments’ ability pay for project development costs or to help cover their financial contribution to PPPs. In some cases, this support is available through PPP units. India’s Gujarat Infrastructure Development Board, South Africa’s PPP Center, the Philippines BOT Center (now the PPP Center), and the former Partnerships UK all provide(d) financial support for consultants working with line ministries or local governments (Dutz et al., 2006). Previously, the P3 Canada Fund covered up to 25% of eligible costs for subnational PPP infrastructure projects, including direct costs and project development costs (PPP Canada, n.d.). More recently, the Canadian government replaced the P3 Fund with the newly established Canada Infrastructure Bank (CIB), which focuses on revenue-generating infrastructure projects and leveraging private investment (Department of Finance Canada, 2016). Other institutions, such as the US Economic Development Administration, consider PPP as a competitive determinant when they provide financial support to subnational governments for infrastructure projects, in order to leverage private participation and promote regional development. As noted earlier and also discussed in Chapter 3, the United Kingdom offered financial support for subnational governments’ unitary charge payments in the form of “PFI credits”. As that experience revealed, it is important to evaluate the use of such support carefully to ensure that it does not distort consideration of PPPs compared to other forms of procurement.

### *The effectiveness of support mechanisms*

Do these different supports for PPPs affect the uptake and quality of PPPs as a tool for infrastructure delivery? Are they useful for subnational governments? The three case studies that form part of this report suggest that the tools highlighted here can be useful for subnational governments. Comprehensive governance arrangements in the United Kingdom

and in Virginia, at the national and subnational levels, appear to have played key roles in facilitating the uptake of PPP approaches to meet infrastructure needs. For example, the flexible and inclusive statutory framework that supports private-sector participation, along with accountability, and transparency emerges as a key contributor to the success of Virginia's PPP programme. The introduction of PPP units in both the United Kingdom and Virginia facilitated implementation of good practices and standardised procedures. Dedicated support for subnational capacity – such as Local Partnerships in England – bolstered subnational capacity, even for contract renegotiation. In addition, the shift to Whole of Government Accounts in the United Kingdom has minimised accounting incentives to move projects “off budget.” That said, some mechanisms, often coming from a higher level of government, such as subsidies for availability payments, statistical or accounting treatment of PPPs, or even the presence of a PPP unit, may have the effect of unduly incentivising use of PPPs where other forms of procurement should be considered. The case study of France suggests a need for dedicated attention to administrative capacity at the subnational level to counter balance the inevitable challenges that emerge with the use of PPPs.

## Conclusions

Public-private partnerships can play an important role in the toolkit of government officials. Well-designed PPPs hold potential to offer greater value for money in infrastructure investment than traditional procurement. Often, academic and practitioner literature examines PPPs through a national lens. Despite the important role of subnational governments in public investment and the place-based aspects of infrastructure, the specificities of PPPs for economic and social infrastructure at the subnational level have received limited attention.

This chapter offers a framework for examining the challenges of implementing PPPs in a decentralised context. It suggests the multi-level governance context poses important challenges in key areas such as financing and funding, intergovernmental regulatory coherence, and cross-jurisdictional co-ordination and economies of scale. The complexities of PPPs and the skills required to undertake them raise questions regarding subnational administrative capacity and accountability. These issues echo the challenges of implementing public policy in a multi-level governance context. In this case, they affect the incentives of public and private actors to engage in partnerships, the capacity of the public sector to implement them, and the quality of the PPPs they undertake.

How might governments support subnational implementation of public-private partnerships? Practitioner literature on the “good governance” of public-private partnerships maps out a multi-dimensional approach to tackling the wide range of necessary conditions for effective PPPs. Recommendations cover areas such as political and policy commitment, legal and regulatory frameworks, institutional arrangements, administrative tools, budgetary arrangements, and financial support. Again, with some exceptions, the focus is largely national. This chapter has considered how such mechanisms can and currently do play out at the subnational level. It suggests that both multi-dimensional and multi-level governance considerations are important for subnational PPPs.



## Notes

1. Which functions are transferred to the private sector generally determines the type of PPP.
2. See, for example, the brief discussion of PPPs in OECD (2013c) for summary of the main advantage of and some difficulties associated with PPPs.
3. “A PPP project is affordable if the expenditure it implies for the government can be accommodated with current levels of government expenditure and revenue and if it can be assumed that such levels will be and can be sustained into the future” OECD (2008: 39).
4. “Value for money” is an assessment of the “optimal combination of quality, features and price, calculated over the whole of the project’s life” (OECD, 2008: 21). For a brief discussion of the limits to value for money assessment, see Public Works Financing (2014).
5. Data come from the World Bank Private Participation in Infrastructure database, which tracks private participation in middle- and low-income countries in four key sectors: energy, ICT, water, and transport. It includes four categories of projects: management and lease contracts, brownfield projects, Greenfield projects, and divestitures. Private participation must be at least 20% of the contract, except for divestitures where the threshold is at least 5% of equity owned by private parties. (World Bank, 2016b).
6. This figure combines PPPs that Park (2013: 26) categorises as “central+local government” (161 local government projects with a significant central subsidy) and “local government” projects (307 projects for which provinces or cities are the competent authority). The total number of projects at all levels of government is 633.
7. The case study describes the methodology for assigning projects to different levels of government based on the procuring authority. Data used in the analysis come from HM Treasury (2014a).
8. Just as they may contribute to or detract from public investment at the subnational level, see OECD (2013c).
9. For a discussion of rural infrastructure in the US and EU contexts, see for example Blandford et al. (2008).
10. Hooghe and Marks (2003, 2010) describe two categories of multi-level governance. Type I governance is associated with the dispersion of authority to a “limited number of multitask, general-purpose jurisdictions with nonintersecting borders” (Hooghe and Marks, 2003) such as local, regional, national (and supra-national) governments. By contrast, Type II governance “operate[s] at numerous territorial scales... jurisdictions are task-specific rather than general-purpose ... and flexible rather than durable” (Hooghe and Marks, 2010). In this case the unit of analysis is the functional jurisdiction, created to respond to a particular policy problem and at the correspondingly appropriate scale. PPPs for infrastructure and service provision straddle both Type I and Type II: they are often legally created, regulated, and financed in Type I systems but address functional issues that may cross jurisdictions and operate in an environment with Type II stakeholders.

11. Now PF2.
12. In 2013, of 80 PPP deals reaching financial close in Europe, 14 transactions benefitted from some form of public financing and/or guarantee commitment (EPEC, 2014).
13. This discussion and example of the challenges of financing small PPPs come from S. Shukla (personal communication, May 6, 2014).
14. Private actors must consider the full weight of taxes to which a PPP will be subject. Such taxes may occur at multiple levels of government (UNCITRAL, 2001).
15. In Argentina, for example, a sometimes-difficult relationship between the national government and provincial ones, along with increasing provincial dependence on intergovernmental transfers has made provinces vulnerable to changes in national funding decisions, increasing risk for the private sector (EIU, 2013b).
16. They recommend a gradual increase in prices, starting before the public authorities have transitioned to private participation (Beato and Vives, 2003). The authors are referring to private participation in infrastructure generally and not PPPs specifically.
17. See also Beato and Vives (2003) and Harper and Daughters (2007) for discussion of regulatory issues.
18. These include “licences under foreign exchange regulations; licences for the incorporation of the concessionaire; authorisations for the employment of foreigners; registration and stamp duties for the use or ownership of land; import licences for equipment and supplies; construction licences; licences for the installation of cables or pipelines; licences for bringing the facility into operation; and spectrum allocation for mobile communication” (UNCITRAL, 2001: 30).
19. See also Plummer (2002: 263).
20. According to the Latin America Infrascopes Model 2012 (EIU, 2013b), “Brazil’s legal mechanisms for establishing PPP projects are effective at different layers of government. The federal government has exclusive rights to grant PPP projects in the energy sector and with respect to interstate roads, railroads, airports and seaports. State and municipal governments are responsible for water distribution, sewage and metropolitan, urban and state road projects.” It further found, “Individual state frameworks cannot contradict or override federal legislation” but “the institutional framework varies for each state, creating a heterogeneous environment for state-level projects.”
21. S. Shukla, personal communication, May 6, 2014.
22. The advisory market may not always be as well developed as subnational governments may need, however. The experience of the Netherlands is instructive here. According to Koster (2005), early experiences with PPPs needed to tap both Dutch and UK advisors due to lack of experience and limited sophistication in the Dutch advisory market. This raised costs and led to a less-than-efficient structuring of early contracts based on the UK’s common law system rather than a Dutch model.
23. The quote is from the Latin America Infrascopes Model 2012, country detail for Mexico in Excel (EIU, 2013b).
24. The authors use the framework as the basis of a PPP Government Support Index (PPP GSI).

25. As Verhoest et al. (2015) base their research on analysis of transportation PPPs, the model contract they propose would be for transportation PPPs, but one could argue that such a tool could be applied more generally to other sectors.
26. For a discussion of data and PPPs see, for example, World Bank (2016d).
27. The Public-Private Infrastructure Advisory Facility (PPIAF) is a multi-donor technical assistance facility to help developing countries tap the potential of private sector involvement in infrastructure. It features a Subnational Technical Assistance programme that works to enhance SNGs' access to market-based financing without sovereign guarantees (PPIAF, 2014).

## References

- Beato, P. and A. Vives (2003), "Private Infrastructure Investment at the Subnational Level: Challenges in Emerging Economies", *IADB Working Paper*, Inter-American Development Bank, Washington, DC, October, <https://pdfs.semanticscholar.org/52ec/f59652b683ff48010cf8cfe182adf7e49df4.pdf>.
- Blandford, D., R.N. Boisvert and S. Davidova (2008), "Infrastructure and Rural Development: US and EU Perspectives", *EuroChoices*, 7(1), pp. 52-59, <http://dx.doi.org/10.1111/j.1746-692X.2008.00086.x>.
- Brookings Institution (2012), "Brookings Calls on Obama Administration to Establish a Federal PPP Unit to Support Infrastructure Investment", The Metropolitan Policy Program at Brookings, Press Release, 13 November, [www.brookings.edu/wp-content/uploads/2016/06/13-public-private-infrastructure-release.pdf](http://www.brookings.edu/wp-content/uploads/2016/06/13-public-private-infrastructure-release.pdf).
- Burger, P. and I. Hawkesworth (2011), "How to Attain Value for Money: Comparing PPP and Traditional Infrastructure Public Procurement", *OECD Journal on Budgeting*, Volume 11/1, pp. 91–146, <http://dx.doi.org/10.1787/budget-11-5kg9zc0pvq6j>.
- Canadian Council for Public-Private Partnerships (2011), "Public-Private Partnerships: A Guide for Municipalities", with PPP Canada, November, [www.pppcouncil.ca/web/P3\\_Knowledge\\_Centre/Research/Public-Private\\_Partnerships\\_A\\_Guide\\_for\\_Municipalities.aspx](http://www.pppcouncil.ca/web/P3_Knowledge_Centre/Research/Public-Private_Partnerships_A_Guide_for_Municipalities.aspx).
- Canadian Council for Public-Private Partnerships (n.d.), *Project Database*, <http://projects.pppcouncil.ca/> (accessed 1 May 2017).
- Charbit, C. and M. Michalun (2009), "Mind the gaps: Managing mutual dependence in relations among levels of government", *OECD Working Papers on Public Governance*, No. 14, OECD Publishing, Paris, <http://dx.doi.org/10.1787/221253707200>.
- Colverson, S. and O. Perera (2012), *Harnessing the Power of Public-Private Partnerships: The Role of Hybrid Financing Strategies in Sustainable Development*, International Institute for Sustainable Development, Winnipeg and Geneva, February, [www.iisd.org/publications/pub.aspx?id=1550](http://www.iisd.org/publications/pub.aspx?id=1550).
- Dutz, M., I. Dhingra, C. Harris and C. Shugart (2006), "Public Private Partnership Units: What Are They, and What Do They Do?", *Viewpoint: Public Policy for the Private Sector*, Note No. 311, World Bank, Washington, DC, <http://hdl.handle.net/10986/11175>.
- EC (European Commission) (2014a), "Memo, Directive of the European Parliament and of the Council on the award of Concession Contracts – Frequently Asked Questions", 15 January 2014 [http://europa.eu/rapid/press-release\\_MEMO-14-19\\_fr.htm](http://europa.eu/rapid/press-release_MEMO-14-19_fr.htm) (accessed 27 April 2015).
- EC (2014b), "New Rules on Public Contracts and Concessions: Simpler and More Flexible", Leaflet, Internal Market and Services, European Union, Luxembourg, <http://dx.doi.org/10.2780/45535>.

- EIU (Economist Intelligence Unit) (2013a), “Evaluating the environment for public-private partnerships in Latin America and the Caribbean: The 2012 Infrascop”, Index guide and methodology, The Economist Intelligence Unit, London, [http://infrascop.eiu.com/wp-content/uploads/2017/02/Latin-America\\_Infrascop\\_Report\\_2012\\_English.pdf](http://infrascop.eiu.com/wp-content/uploads/2017/02/Latin-America_Infrascop_Report_2012_English.pdf).
- EIU (2013b), “Latin America Infrascop Model 2012”, Excel workbook, The Economist Intelligence Unit, London, [http://infrascop.eiu.com/wp-content/uploads/2017/02/Latin-America\\_Infrascop\\_Model\\_2012.xls](http://infrascop.eiu.com/wp-content/uploads/2017/02/Latin-America_Infrascop_Model_2012.xls).
- EIU (2013c), “Evaluating the environment for public-private partnerships in Eastern Europe and the Commonwealth of Independent States: The 2012 EECIS Infrascop”, Findings and methodology, The Economist Intelligence Unit, London, [http://infrascop.eiu.com/wp-content/uploads/2017/02/Europe\\_Infrascop\\_Report\\_2012\\_English.pdf](http://infrascop.eiu.com/wp-content/uploads/2017/02/Europe_Infrascop_Report_2012_English.pdf).
- EIU (2012), “Evaluating the environment for public-private partnerships in Asia-Pacific: The 2011 Infrascop”, Findings and methodology, The Economist Intelligence Unit and the Asian Development Bank, London and Manila, [http://infrascop.eiu.com/wp-content/uploads/2017/02/Asia-Pacific\\_Infrascop\\_Report\\_2011\\_English.pdf](http://infrascop.eiu.com/wp-content/uploads/2017/02/Asia-Pacific_Infrascop_Report_2011_English.pdf).
- EPEC (European PPP Expertise Centre) (2014), “Market Update: Review of the European PPP Market in 2013”, European PPP Expertise Centre, Brussels, February, [www.eib.org/attachments/epec/epec\\_market\\_update\\_2013\\_en.pdf](http://www.eib.org/attachments/epec/epec_market_update_2013_en.pdf).
- EPEC (2012a), “France PPP Units and Related Institutional Framework”, European PPP Expertise Centre, Brussels, May, [www.eib.org/infocentre/publications/all/epec-france-ppp-unit-and-related-institutional-framework.htm](http://www.eib.org/infocentre/publications/all/epec-france-ppp-unit-and-related-institutional-framework.htm).
- EPEC (2012b), “Project Finance” in “The Guide to Guidance: How to Prepare, Procure and Deliver PPP Projects”, [www.eib.org/epec/g2g/annex/1-project-finance](http://www.eib.org/epec/g2g/annex/1-project-finance) (accessed 22 January 2014).
- EPEC (2011), “State Guarantees in PPPs: A Guide to Better Evaluation, Design, Implementation and Management”, European PPP Expertise Centre, Brussels, May, [www.minfin.bg/upload/13582/epec-state-guarantees-in-ppps-public.pdf](http://www.minfin.bg/upload/13582/epec-state-guarantees-in-ppps-public.pdf).
- Farlex Financial Dictionary (2012), “Take-Out Commitment”, webpage, <http://financial-dictionary.thefreedictionary.com/Take+Out+Financing> (accessed 9 December 2013).
- Farrugia, C., T. Reynolds and R. Orr (2008), “Public-Private Partnership Agencies: A Global Perspective”, *Working Paper* 39, Collaboratory for Research on Global Projects, Stanford University, August, [https://gpc.stanford.edu/sites/default/files/wp039\\_0.pdf](https://gpc.stanford.edu/sites/default/files/wp039_0.pdf).
- Gifford, J. and M. Transue (2018), “Public-private partnerships for infrastructure at the sub-national level of government: Opportunities and challenges in the Commonwealth of Virginia”, Chapter 4 of this report.
- Harper, L. and R. Daughters (2007), “Public-private partnerships: Trends and challenges at the subnational level”, conference paper, XII Congreso Internacional del CLAD sobre la Reforma del Estado y de la Administración Pública, Sto. Domingo, Rep. Dominicana, 30 Oct - 2 Nov 2007, [www.clad.org/siare\\_isis/fulltext/0057912.pdf](http://www.clad.org/siare_isis/fulltext/0057912.pdf).
- HM Treasury (2014a), “Current projects as at 31 March 2014”, Excel workbook, [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/387225/current\\_projects\\_as\\_at\\_31\\_March\\_2014.xlsx](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387225/current_projects_as_at_31_March_2014.xlsx).
- HM Treasury (2014b), “Private Finance Initiative projects: 2014 summary data”, December 2014, [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/387228/pfi\\_projects\\_2014\\_summary\\_data\\_final\\_15122014.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387228/pfi_projects_2014_summary_data_final_15122014.pdf).

- HM Treasury (2012), “A new approach to public private partnerships”, December, [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/205112/pf2\\_infrastructure\\_new\\_approach\\_to\\_public\\_private\\_partnerships\\_051212.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/205112/pf2_infrastructure_new_approach_to_public_private_partnerships_051212.pdf).
- Hooghe, L. and G. Marks (2010), “Types of Multilevel Governance”, in Enderlein, H., S. Wälti and M. Zürn (eds.), *Handbook on Multilevel Governance*, Edward Elgar, Cheltenham.
- Hooghe, L. and G. Marks (2003), “Unraveling the Central State, but How? Types of Multi-level Governance”, *American Political Science Review*, 97(02), pp. 233-243, <http://dx.doi.org/10.1017/S0003055403000649>.
- Infrastructure Australia (2014), “Public Private Partnerships”, webpage, <http://infrastructureaustralia.gov.au/policy-publications/public-private-partnerships/index.aspx> (accessed 22 March 2018).
- Infrastructure Australia (2008), “National PPP Guidelines: Policy Framework”, December.
- Infrastructure Concession Regulatory Commission (2012), “6.4 Sources of Finance” in “PPP Manual for Nigeria”, ICRC.
- International Monetary Fund (2014), *World Economic Outlook*, October 2014.
- Istrate, E. and R. Puentes (2011), “Moving Forward on Public Private Partnerships: US and International Experience with PPP Units”, Brookings-Rockefeller Project on State and Metropolitan Innovation, Brookings Institution, Washington, DC, December, [www.brookings.edu/wp-content/uploads/2016/06/1208\\_transportation\\_istrate\\_puentes.pdf](http://www.brookings.edu/wp-content/uploads/2016/06/1208_transportation_istrate_puentes.pdf).
- Jooste, S., and R.E. Levitt (2009), “The impacts of infrastructure PPPs on Public Sector Capacity”, Proceedings of the ASCE Construction Research Congress, Seattle, WA, 5-7 April 2009, [https://gpc.stanford.edu/sites/default/files/cp031\\_0.pdf](https://gpc.stanford.edu/sites/default/files/cp031_0.pdf).
- Kappeler, A., A. Solé-Ollé, A. Stephan and T. Väilä (2012), “Does Fiscal Decentralization Foster Regional Investment in Productive Infrastructure?”, *DIW Berlin Discussion Paper*, No. 1204, Deutsches Institut für Wirtschaftsforschung, Berlin, <http://dx.doi.org/10.2139/ssrn.2050355>.
- Koster, J. (2005), “Public-private partnerships: Netherlands switches on to public-private deals”, *International Financial Law Review*, 23 May, [www.iflr.com/Article/1984888/Public-private-partnerships-Netherlands-switches-on-to-public-private-deals.html](http://www.iflr.com/Article/1984888/Public-private-partnerships-Netherlands-switches-on-to-public-private-deals.html) (accessed 28 April 2015).
- Lammam, C., H. MacIntyre and J. Berechman (2013), “Using Public-Private Partnerships to Improve Transportation Infrastructure in Canada”, *Studies in Economic Prosperity*, Fraser Institute, May, [www.fraserinstitute.org/sites/default/files/using-public-private-partnerships-to-improve-transportation-infrastructure-in-canada-rev.pdf](http://www.fraserinstitute.org/sites/default/files/using-public-private-partnerships-to-improve-transportation-infrastructure-in-canada-rev.pdf).
- Mathieson, S.A. (2014), “Scotland’s prescription for health: Ditch the PFI”, *The Guardian*, 22 January 2014, [www.theguardian.com/society/2014/jan/22/scotland-health-ditch-pfi-nhs](http://www.theguardian.com/society/2014/jan/22/scotland-health-ditch-pfi-nhs) (accessed 12 February 2014).
- McKinsey & Co. (2016), “Bridging Global Infrastructure Gaps”, McKinsey Global Institute, Capital Projects and Infrastructure Practice, June, [www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/bridging-global-infrastructure-gaps](http://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/bridging-global-infrastructure-gaps) (accessed 10 May 2017).
- Mizell, L. (2018), “Public-private partnerships at the sub-national level of government: The case of PFI in the United Kingdom”, Chapter 3 of this report.
- Mizell, L. and D. Allain-Dupré (2013), “Creating conditions for effective public investment: Sub-national capacities in a multi-level governance context”, *OECD Regional Development Working Papers*, No. 2013/04, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5k49j2c5mq-en>.

- Moszoro, M. and P. Gąsiorowski (2008), “Optimal capital structure of public-private partnerships”, *IMF Working Papers*, WP/08/1, January, [www.imf.org/external/pubs/ft/wp/2008/wp0801.pdf](http://www.imf.org/external/pubs/ft/wp/2008/wp0801.pdf).
- Musson, S. (2009), “The Geography of the Private Finance Initiative”, *Geographical Paper* 188, University of Reading, [www.reading.ac.uk/web/FILES/geographyandenvironmentalscience/GP188.pdf](http://www.reading.ac.uk/web/FILES/geographyandenvironmentalscience/GP188.pdf).
- OECD (2017) *Investing in Climate, Investing in Growth*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264273528-en>.
- OECD (2016), *OECD Regions at a Glance 2016*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/reg\\_glance-2016-en](http://dx.doi.org/10.1787/reg_glance-2016-en).
- OECD (2014), “Recommendation of the Council on Effective Public Investment Across Levels of Government”, 12 March, [www.oecd.org/regional/regional-policy/Principles-Public-Investment.pdf](http://www.oecd.org/regional/regional-policy/Principles-Public-Investment.pdf).
- OECD (2013a), *Government at a Glance 2013*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/gov\\_glance-2013-en](http://dx.doi.org/10.1787/gov_glance-2013-en).
- OECD (2013b), *Fiscal Federalism 2014: Making Decentralisation Work*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264204577-en>.
- OECD (2013c), “Investing for Inclusive Growth: Principles for Action” in *Regions and Cities: Where Policies and People Meet*, Policy Briefs prepared for the 3<sup>rd</sup> Ministerial Meeting of the Territorial Development Policy Committee, Marseille, France, 5-6 December, pg. 5, [www.oecd.org/regional/ministerial/policy-briefs.pdf](http://www.oecd.org/regional/ministerial/policy-briefs.pdf).
- OECD (2012), “Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships”, May, [www.oecd.org/governance/budgeting/PPP-Recommendation.pdf](http://www.oecd.org/governance/budgeting/PPP-Recommendation.pdf).
- OECD (2010), *Dedicated Public-Private Partnership Units: A Survey of Institutional and Governance Structures*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264064843-en>.
- OECD (2009a), “Bridging the Gaps between Levels of Government”, OECD Policy Brief, October.
- OECD (2009b), *Governing Regional Development Policy: The Use of Performance Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264056299-en>.
- OECD (2008), *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264046733-en>.
- OECD (2007), “Executive summary”, in *Globalisation and Regional Economies: Can OECD Regions Compete in Global Industries?*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264037809-2-en>.
- Park, H. (2013), “PPP (Public-Private Partnerships) System in Korea”, presentation, 21 November, [www.kdevelopedia.org/mnt/idas/asset/2013/11/29/DOC/PDF/04201311290129319073742.pdf](http://www.kdevelopedia.org/mnt/idas/asset/2013/11/29/DOC/PDF/04201311290129319073742.pdf).
- Partnerschaften Deutschland (2014), “Überblick zu ÖPP-Projekten im Hoch- und Tiefbau in Deutschland”, Berlin, 28 February, [www.partnerschaften-deutschland.de/fileadmin/Daten/OEPP-Markt/OEPP-Marktzahlen/140303\\_Projekt Datenbank\\_PPP-Projekte\\_Dt\\_Stand\\_Ende\\_Februar2014.pdf](http://www.partnerschaften-deutschland.de/fileadmin/Daten/OEPP-Markt/OEPP-Marktzahlen/140303_Projekt Datenbank_PPP-Projekte_Dt_Stand_Ende_Februar2014.pdf).
- Partnerships Bulletin (2012), “The Global PPP Market 2012”, with PPP Bulletin and Deloitte, [www2.deloitte.com/content/dam/Deloitte/global/Documents/gx-icp-the-global-ppp-market-2012.pdf](http://www2.deloitte.com/content/dam/Deloitte/global/Documents/gx-icp-the-global-ppp-market-2012.pdf).
- Petersen, O.H. (2011), “Multi-level governance of public-private partnerships: An analysis of the Irish case”, *Handuskultuur – Administrative Culture* 12 (2), 162-188, <http://halduskultuur.eu/journal/index.php/HKAC/article/download/57/53>.

- Plummer, J. (2002), *Focusing Partnerships a Sourcebook for Municipal Capacity Building in Public-Private Partnerships*, Earthscan, London and Sterling, [www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/municipal-capacity-building-in-public-private-partnerships/Municipal-Capacity-Building.pdf](http://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/municipal-capacity-building-in-public-private-partnerships/Municipal-Capacity-Building.pdf).
- PPIAF (Public-Private Infrastructure Advisory Facility) (2014), “About Us” and “Sub-National Technical Assistance Program”, webpages, <https://ppiaf.org/about-us> and <https://ppiaf.org/sub-national-ta> (accessed 18 September 2017).
- PPIAF and PWC (PriceWaterhouseCoopers) (2006), “Hybrid PPPs: Levering EU Funds and Private Capital”, January, [www.irfnet.ch/files-upload/knowledges/PWC\\_HybridPPPs\\_2006.pdf](http://www.irfnet.ch/files-upload/knowledges/PWC_HybridPPPs_2006.pdf).
- PPP Canada (n.d.), “Application Guide and Application Form Round Seven, April 13, 2015 – June 12, 2015”.
- Public Works Financing (2014), *Public Works Financing*, P3 Research Issue, January, [www.pwfinance.net/document/P3\\_Research\\_Issue.pdf](http://www.pwfinance.net/document/P3_Research_Issue.pdf).
- Public Works Financing (2013), “World P3 Market by Sector/Country (10/13)”, The International Major Projects database 2013, <http://pwfinance.net/research/reprints/> and [www.pwfinance.net/document/research\\_reprints/Charts%201013/Big%20chart.pdf](http://www.pwfinance.net/document/research_reprints/Charts%201013/Big%20chart.pdf).
- PWC (PriceWaterhouseCoopers) (2013), “Overview of global PPP markets”, OECD 2013 annual meeting of senior PPP officials, 15 April, [www.oecd.org/gov/budgeting/D1-AM%20-%20S1%20-%20Charles%20LLOYD%20-%20PWC.pdf](http://www.oecd.org/gov/budgeting/D1-AM%20-%20S1%20-%20Charles%20LLOYD%20-%20PWC.pdf).
- Rall, J., J. Reed and N. Farber (2010), “Public-Private Partnerships for Transportation: A Toolkit for Legislators”, National Conference of State Legislatures, Denver and Washington, DC, October, [www.ncsl.org/documents/transportation/ppptoolkit.pdf](http://www.ncsl.org/documents/transportation/ppptoolkit.pdf).
- Richardson, L. (2010), “The Value of a Proper Enabling Environment for PPP’s in Infrastructure Investment and Development”, Institute for Public-Private Partnerships, Public-Private Partnership Information Series, February.
- Saragiotis, P. (ed.) (2009), “Public-Private Partnerships in Infrastructure Days 2008”, proceedings of the conference held 15-18 December 2008, World Bank Institute, Washington, DC, <http://documents.worldbank.org/curated/en/301771468337169167/Public-private-partnerships-in-infrastructure-days-2008>.
- Saussier, S. (2017), “Public-private partnerships for infrastructure at the sub-national level of government: Opportunities and challenges in France“, Chapter 2 of this report.
- Sénat (2014), “Les Contrats de Partenariat: Des Bombes à Retardement?”, Synthesis note of the report by Mr. Hugues Portelli and Mr. Jean-Pierre Sueur, July, [www.senat.fr/notice-rapport/2013/r13-733-notice.html](http://www.senat.fr/notice-rapport/2013/r13-733-notice.html) (accessed 23 March 2018).
- Shenk, S. (2015a), “I-95 Tolls Bring in \$9 Million in First Quarter”, Fredericksburg.com, 25 April, [www.fredericksburg.com/news/transportation/i--tolls-bring-in-million-in-first-quarter/article\\_c198630e-fe30-5d82-be37-9fe4e0929232.html](http://www.fredericksburg.com/news/transportation/i--tolls-bring-in-million-in-first-quarter/article_c198630e-fe30-5d82-be37-9fe4e0929232.html), as cited in Gifford, J. and M. Transue (2018), “Public-private partnerships for infrastructure at the sub-national level of government: Opportunities and challenges in the Commonwealth of Virginia”, Chapter 4 of this report.
- Shenk, S. (2015b), “I-95 Express Lanes Continue to Rake in the Money, Ringing up \$15 Million in the Second Quarter”, Fredericksburg.com, 11 July, [www.fredericksburg.com/news/transportation/i--express-lanes-continue-to-rake-in-the-money/article\\_4913b520-593e-533e-8bb4-f1198c2ae7f5.html](http://www.fredericksburg.com/news/transportation/i--express-lanes-continue-to-rake-in-the-money/article_4913b520-593e-533e-8bb4-f1198c2ae7f5.html), as cited in Gifford, J. and M. Transue (2018), “Public-private partnerships for infrastructure at the sub-

national level of government: Opportunities and challenges in the Commonwealth of Virginia”, Chapter 4 of this report.

UNCITRAL (United Nations Commission on International Trade Law) (2001), “Legislative Guide on Privately Financed Infrastructure Projects”, United Nations, New York, [www.uncitral.org/pdf/english/texts/procurement/pfip/guide/pfip-e.pdf](http://www.uncitral.org/pdf/english/texts/procurement/pfip/guide/pfip-e.pdf).

UNECE (United Nations Economic Commission for Europe) (2008), *Guidebook on Promoting Good Governance in Public-Private Partnerships*, United Nations, New York and Geneva, January, [www.unece.org/fileadmin/DAM/ceci/publications/ppp.pdf](http://www.unece.org/fileadmin/DAM/ceci/publications/ppp.pdf).

US HR (United States House of Representatives Committee on Transportation and Infrastructure) (2014), “Public Private Partnerships: Balancing the needs of the public and private sectors to finance the nation’s infrastructure”, Findings of the Special Panel on Public-Private Partnerships, [http://transportation.house.gov/uploadedfiles/p3\\_panel\\_report.pdf](http://transportation.house.gov/uploadedfiles/p3_panel_report.pdf).

Verhoest, K., O.H. Petersen, W. Scherrer and R.M. Soeipto (2015), “How Do Governments Support the Development of Public–Private Partnerships? Measuring and Comparing PPP Governmental Support in 20 European Countries”, *Transport Reviews: A Transnational Transdisciplinary Journal*, Vol. 35(2), pp. 118-139, <http://dx.doi.org/10.1080/01441647.2014.993746>.

Virginia Department of Transportation (2012), “Comprehensive Agreement Relating to the I-95 HOV/HOT Lanes Project”, as cited in Gifford, J. and M. Transue (2018), “Public-private partnerships for infrastructure at the sub-national level of government: Opportunities and challenges in the Commonwealth of Virginia”, Chapter 4 of this report.

Virginia Department of Transportation (2007), “Amended and Restated Comprehensive Agreement Relating to the Route 495 HOT Lanes in Virginia Project”, as cited in Gifford, J. and M. Transue (2018), “Public-private partnerships for infrastructure at the sub-national level of government: Opportunities and challenges in the Commonwealth of Virginia”, Chapter 4 of this report.

Von Thadden, G. (2012), “Financing Municipal PPPs”, European PPP Expertise Centre, Brussels, 6 June 2012, [http://ec.europa.eu/economy\\_finance/events/2012/2012-06-06-ec-epec/documents/epec\\_-\\_g.von\\_thadden.pdf](http://ec.europa.eu/economy_finance/events/2012/2012-06-06-ec-epec/documents/epec_-_g.von_thadden.pdf).

WEF (World Economic Forum) (2013), “Strategic Infrastructure: Steps to Prepare and Accelerate Public-Private Partnerships”, in collaboration with The Boston Consulting Group, World Economic Forum, Geneva, May, [www3.weforum.org/docs/AF13/WEF\\_AF13\\_Strategic\\_Infrastructure\\_Initiative.pdf](http://www3.weforum.org/docs/AF13/WEF_AF13_Strategic_Infrastructure_Initiative.pdf).

WEF (2012), “Strategic Infrastructure: Steps to Prioritize and Deliver Infrastructure Effectively and Efficiently”, in collaboration with PWC, World Economic Forum, Geneva, September, [www.weforum.org/reports/strategic-infrastructure-steps-prioritize-and-deliver-infrastructure-effectively-and-efficiently](http://www.weforum.org/reports/strategic-infrastructure-steps-prioritize-and-deliver-infrastructure-effectively-and-efficiently).

World Bank (2017), *World Development Indicators*, Online tables: 3.5 Freshwater (<http://wdi.worldbank.org/table/3.5>), 3.12 Urbanization (<http://wdi.worldbank.org/table/3.12>), 3.13 Sustainable Energy for All (<http://wdi.worldbank.org/table/3.13>), last updated 17 April 2017 (accessed 12 May 2017).

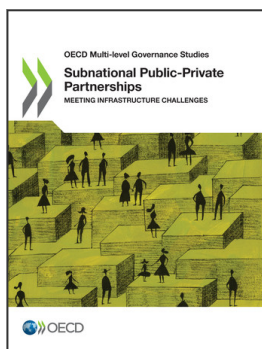
World Bank (2016a), *World Development Indicators 2016*, World Bank, Washington, DC, <http://dx.doi.org/10.1596/978-1-4648-0683-4>.

World Bank (2016b), “Methodology”, *Private Participation in Infrastructure Database*, webpage, <http://ppi.worldbank.org/methodology/ppi-methodology> (accessed 12 May 2017).

World Bank (2016c), “Government Support in Financing PPPs”, webpage, (last updated 8 September 2016) and “Risk Mitigation Mechanisms”, webpage, (last updated 31 October 16), The Public-Private



- Partnership in Infrastructure Resource Center (PPPIRC), <http://ppp.worldbank.org/public-private-partnership/financing> (accessed 12 May 2017).
- World Bank (2016d), “Data”, *Handshake*, April, <https://handshake.pppknowledgelab.org/issues/data> (accessed 2 June 2017).
- World Bank (2011), “Transformation through infrastructure, Issues and Concept Note”, World Bank Group Infrastructure Strategy Update, World Bank, Washington, DC.
- World Bank (2007), *Public-private partnership units: Lessons for their design and use in infrastructure*, World Bank, Washington, DC, <http://documents.worldbank.org/curated/en/220171468332941865/Public-private-partnership-units-lessons-for-their-design-and-use-in-infrastructure>.
- World Bank (2006), “India: Building Capacities for Public Private Partnerships”, World Bank, Washington, DC, <http://hdl.handle.net/10986/19446>.
- World Bank Institute and PPIAF (2012), “Public-Private Partnerships: Reference Guide Version 1.0”, World Bank, Washington, DC, <http://hdl.handle.net/10986/16055>.
- World Highways (2016), “France replaces P3 advisory body MAPPP with Fin Infra”, webpage, 31 May 2016, [www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/france-replaces-p3-advisory-body-mappp-with-fin-infra/](http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/france-replaces-p3-advisory-body-mappp-with-fin-infra/) (accessed 11 May 2017).
- Yescombe, E. (2013), *Principles of Project Finance*, 2nd Edition, Academic Press, GoogleBooks (accessed 22 January 2014).



**From:**  
**Subnational Public-Private Partnerships**  
Meeting Infrastructure Challenges

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264304864-en>

**Please cite this chapter as:**

OECD (2018), “A look at the challenges and governance of subnational public-private partnerships”, in *Subnational Public-Private Partnerships: Meeting Infrastructure Challenges*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264304864-3-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).