

ORIGINAL ARTICLE

Regulating local government financing vehicles and public–private partnerships in China

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ABSTRACT

In this paper, we argue that there is much room for China to strengthen its regulatory framework for public–private partnerships (PPPs). We show that infrastructure projects carried out through local government financing vehicles (LGFVs) are largely unregulated PPPs, and significant fiscal risks have already manifested themselves. While PPPs can potentially provide efficiency gains, they can also be used by governments to circumvent budgetary borrowing constraints. Therefore, effective PPP regulation is key to delivering PPPs' benefits while containing their potential fiscal risks. The authorities have taken concrete steps in order to establish a sound regulatory framework and foster a new generation of PPPs. However, to make the framework effective, we highlight a few issues to be resolved. Based on international best practice, we propose a four-pillar regulatory framework for China, which could be implemented gradually in three stages.

Keywords: *fiscal risk; public investment; subnational government*

1. Introduction

The Chinese authorities are actively promoting public–private partnerships (PPPs) as part of their policy response to risks arising from local government financing vehicles (LGFVs). LGFVs were a common “off-budget” solution used by subnational governments (SNGs) in China to develop infrastructure. The number and size of LGFVs mushroomed in the 2000s and posed significant fiscal risks. In response to this challenge, the Chinese authorities have relaxed on-budget SNG borrowing constraints. Moreover, they are actively promoting PPPs and the corresponding regulatory framework as a new model to develop infrastructure going forward.

This paper reviews the history of LGFVs and PPPs in China and the recently introduced regulatory framework, and makes recommendations for further reform. By comparing LGFVs and typical PPPs, we would argue that LGFVs are in fact a specific type of unregulated PPPs. Therefore, the Chinese authorities are effectively promoting a new generation of PPPs with a new regulatory framework, which is a positive step forward. However, there is still much room to improve the regulatory framework.

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The rest of the paper is organized as follows: Section 1 provides background information on LGFVs in China, their links to PPPs and the history. Section 2 discusses government policies in response to fiscal risks arising from LGFVs, as well as some issues with the recent measures. Section 3 proposes a four-pillar PPP regulatory framework based on international experience,. Section 4 translates the framework into a three-stage reform strategy, and Section 5 concludes.

2. Background

2.1. Why are LGFVs a fiscal issue?

LGFVs are companies set up and owned by SNGs to finance and implement public infrastructure projects. According to the budget law before its revision in August 2014 (effective in 2015), SNGs could not borrow “on budget” without the central government’s approval. Since the late-1990s, SNGs had gradually established LGFVs as a way of borrowing “off budget” to finance infrastructure projects. The repayment of loans taken by LGFVs was typically financed by proceeds from the sale of government-owned land near the location of the infrastructure project. In practice, once the infrastructure projects had been completed, the land nearby typically appreciated sharply during the economic boom of the 2000s, which was then sold to repay the debt.

SNG debt—especially that of LGFVs—has posed significant fiscal risks since 2008. The number and size of LGFVs expanded sharply in the 2008 stimulus package. However, as the growth of land sale proceeds has slowed down (Figure 1)¹ and not kept up with the increase of LGFV debt since then, new concerns have arisen about the sustainability of this approach to financing the expansion of infrastructure. According to a 2013 report issued by the National Audit Office (NAO), total LGFV debt stood at RMB7.0 trillion² (13.1% of 2012 GDP) as of end-June 2013. In addition, total local government debt, excluding contingent liabilities, was RMB10.9 trillion (20.4% of 2012 GDP) at end-June 2013, which increased to RMB15.4 trillion at end-2014 (24.2% of 2014 GDP). During the same period, total local government contingent liability increased from RMB7.0 trillion (12.1% of GDP) to RMB8.6 trillion (13.5% of GDP). The pressure to repay maturing debt is particularly high for highways built by LGFVs (NAO, 2013a; 2013b; Lou, 2015).

2.2. How do LGFVs work?

Typically, a LGFV is established as a special-purpose vehicle controlled by an SNG. When a SNG initially sets up a LGFV to construct one or more infrastructure projects, the LGFV typically has few physical or financial assets. In order to borrow from banks or the bond market, it needs to meet certain requirements, such as minimum levels of equity and assets, as well as a reasonable debt-to-equity ratio. Therefore, the SNG usually transfers some of its “high-quality assets” to the LGFV to improve its credit worthiness. Such “high-quality assets” may include: (i) public

1. In China, land is publicly-owned by law. So “selling land” in this paper refers to granting the right of using the land for several decades (license). According to the International Monetary Fund’s Government Finance Statistics Manual (IMF GFSM) (IMF, 2014), there is a range of criteria to determine whether a license represents an asset sale or rent. Based on such criteria, we consider that these licenses for the use of land can be regarded as sales of assets.

2. The figure includes LGFV debt that is classified by the NAO as contingent liability of the government. Excluding such contingent liability, LGFV debt that should be repaid by the government stood at RMB4.1 billion at end-June 2013.

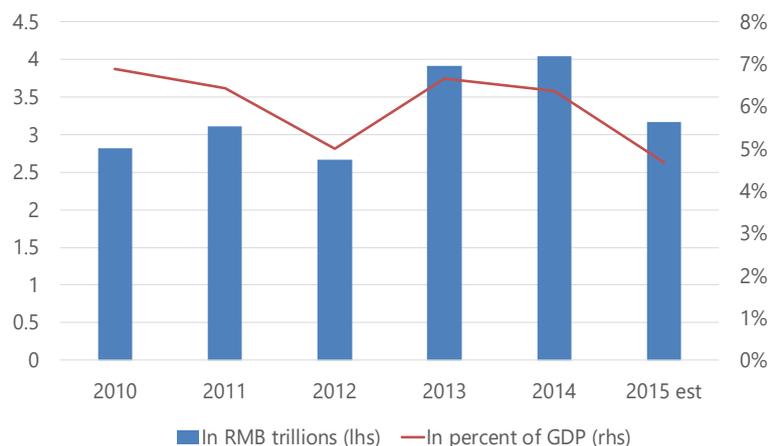


Figure 1. Government-managed fund income from land usage right transfer in China

Sources: CEIC China database and IMF Staff's estimate

Notes: Only proceeds net of resettlement payments to displaced households are available for use. These payments are estimated to be around 40% of land sale proceeds (i.e. income from land usage right transfer).

land, which can be sold by the LGFV to raise cash; and (ii) shares of public utilities companies (e.g. water, sewage, and public transportation) owned by the SNG. The land and the cash flows generated by public utility companies are used as collateral by LGFVs when borrowing to develop infrastructure. Appendix 1 details some examples of LGFVs.

LGFVs can take various roles in an investment project. In some cases, the SNG is regarded as the project originator³ and the LGFV takes the role of the project contractor. The SNG signs a contract with the LGFV,⁴ which is responsible for building and operating the infrastructure (Figure 2). In other cases, a LGFV can be the project originator and sign a contract with another enterprise—private or public—acting as the project contractor. In this case, another special purpose vehicle is often created for the project (Figure 3). Thus, a web of special purpose vehicles is created, which ultimately aim at implementing infrastructure projects on behalf of the SNG. None of these entities, however, were classified as budgetary units in China before 2010. Therefore, their transactions were not recorded on budget.⁵

2.3. What is the link between LGFVs and PPPs?

PPPs are long-term contracts between the government and a private contractor to build public infrastructure and provide infrastructure services. In these contracts, the contractor typically agrees, at its own cost, to build, operate, and maintain an asset in order to provide a service for which the government remains accountable. In return, the government promises either to pay for the service or to allow the contractor to collect fees from users. Usually a special-purpose vehicle is established to run the project. Appendix 2 provides a primer on PPPs, including their benefits/risks and their comparison with traditional public procurement of public investment.

3. They are called “project owner” in China.

4. Sometimes there is no clear business contract between an SNG and its LGFV. However, in these cases, the LGFV directly reports to the SNG and carries out projects as instructed.

5. According to the IMF GFSM 2014, a state-owned enterprise like a LGFV should be treated as a general government unit, if it is a “non-market producer”. A non-market producer provides all or most of its output to others for free or at prices that are not economically significant.

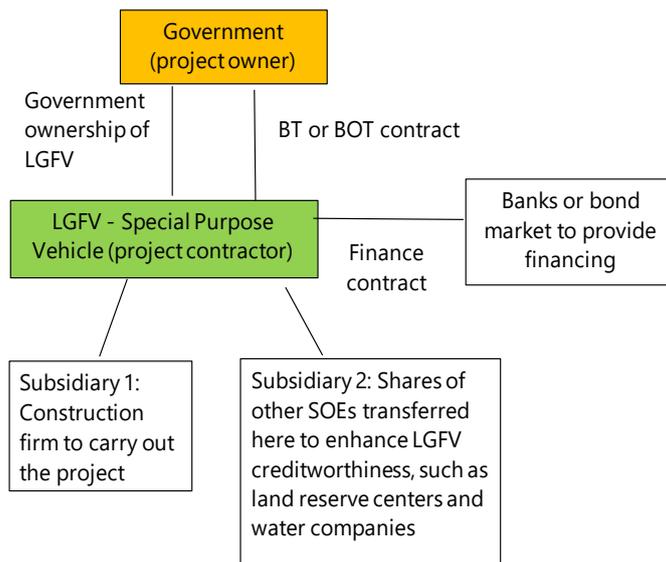


Figure 2. Local government financing vehicle as the project contractor

Notes: BT is Build-Transfer; BOT is Build-Operate-Transfer.

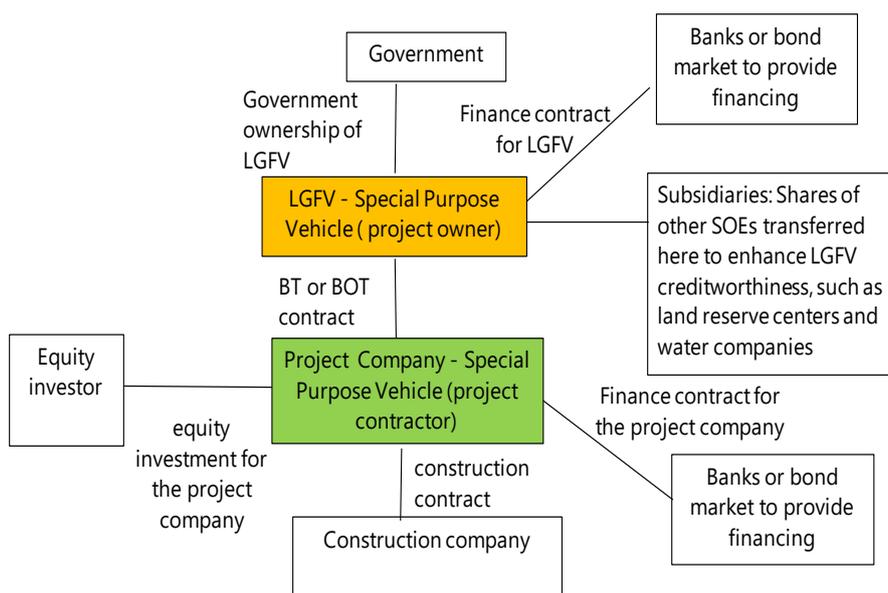


Figure 3. Local government financing vehicle as the project owner

Notes: BT is Build-Transfer; BOT is Build-Operate-Transfer.

By 2010, PPPs had existed in China for two decades, with two identifiable generations and with LGFVs belonging to the second. PPPs in China had taken various contract forms and affected government finances in different ways.⁶ The first generation started in the 1990s, when foreign companies were the major private sector players. In the second generation, initiated in the 2000s, state-owned enterprises (SOEs) were the major players, many in the form of LGFVs.

Inadequate risk-sharing arrangements haunted the first generation of PPPs and resulted in large contract renegotiations. At that time, the limited capacity of subnational authorities, coupled

6. Many projects were not called PPPs *per se*. Instead, they were often referred to as “project financing”, “concessions”, “BT”, “BOT”, “social capital in infrastructure”, *etc.*

with more experienced foreign investors, resulted in PPP contracts disproportionately benefiting the private sector. It was common in this first generation of PPPs for private partners to charge disproportionately high fees and request fixed or minimum return guarantees. This situation led the central government to reconsider the economic and social rationale for these projects. As a result, in 2002 the General Office of the State Council prohibited the practice of guaranteeing fixed returns for foreign companies at all levels of governments, forcing them to renegotiate many existing PPP contracts. As a consequence, the participation of foreign companies in PPPs in China gradually faded away (Wang *et al.*, 2012).

LGFVs can be considered as a specific form of unregulated PPPs of the second generation for several reasons. First, they are tasked with developing infrastructure projects on behalf of the government for a relatively long period, which goes beyond the annual budgetary cycle. Second, their typical structures as illustrated in Figures 2 and 3 are very similar to a typical PPP structure with special-purpose vehicles (Appendix 2, part A). Third, while also state-owned enterprises, LGFVs are not subject to regular budget constraints.

There were strong incentives for SNGs to use LGFVs to provide infrastructure off budget. Given the pre-2015 balanced budget rule which forbade borrowing without central government's approval, SNGs had a strong incentive to develop infrastructure through LGFVs instead of traditional procurement. This was especially the case before 2010, because SNGs' firm and contingent liabilities related to LGFVs projects were typically not disclosed or recorded in their annual budgets, financial statements, and fiscal statistics. In addition, in a booming economy with rapidly increasing land prices at that time, LGFVs did not appear to pose major liquidity issues before 2010. However, fiscal risks from fast-expanding LGFV debt became a major concern for both market participants and the authorities starting in 2010 (State Council, 2010).

Fiscal risks arising from China's first and second generations of PPPs warrant more effective regulation. China's past history with these PPPs shows that fiscal risks were not managed satisfactorily *ex ante*. Therefore, regardless of the labels and formats of contracts or arrangements, all PPP projects should be subject to a strong regulatory framework. This will allow the government to strike a balance between infrastructure development and fiscal sustainability. The following sections will discuss regulatory issues in more detail.

3. Policy response and issues

3.1. Policy response

The government has taken various measures to stop the rapid increase of LGFV debt along three dimensions since 2013. These include: (1) overall fiscal management reform; (2) relaxing SNG fiscal rules and developing the domestic municipal bond market; (3) introducing a new PPP regulatory framework and promoting a new generation of PPPs.

The 2014 revision of the budget law was a key development along the first and second dimensions. The revised budget law lifts the prohibition on local government borrowing. The provincial governments are now allowed to borrow up to a ceiling set by the central government for

capital spending only,⁷ including from the domestic municipal bond market. They are also subject to more information disclosure requirement and fiscal responsibility oversights. In addition, the law expands the budget coverage by requiring the inclusion of government-management funds, state-owned assets, and social security funds in the budget document. Moreover, LGFVs are prohibited from financing local governments going forward. A three-year medium-term fiscal framework has also been introduced.

The third dimension—the promotion of a new generation of PPPs and a modern regulatory framework—is expected to serve multiple purposes. The government has publicly stated three purposes on promoting such PPPs:⁸ (1) to accelerate the government’s own reform, which will reduce the government role in the micro economy but enhance its market regulatory capacity; (2) to remove red tapes and encourage private capital to provide public service; (3) to improve fiscal management and the efficiency of budget spending. In particular, it was stated that PPPs will help mitigate government debt risks, by reducing current-year budgetary spending needs and distributing public investment financing over different generations.

Accordingly, the government is now actively promoting a third generation of PPPs and its regulatory framework. Since 2013, the State Council, the National Development and Reform Commission (NDRC), the Ministry of Finance (MOF), and several line ministries have issued over 40 PPP regulatory documents. A few representative documents were selected in Table 1. Many local governments have also issued their own PPP regulatory documents. In addition, the MOF introduced 233 pilot PPP projects in 2014–2015, worth about RMB800 billion. Both the NDRC and the MOF have created databases for potential PPP projects, covering over 2,000 projects (worth about RMB3.5 trillion) and 7,700 projects (about RMB8.8 trillion) by April 2016, respectively. Also, the MOF and various local governments have created their own PPP units in order to centralize PPP regulation.

3.2. Issues with the new measures

The promotion of a third generation of PPPs and its regulatory framework is a positive step forward. LGFVs were largely unregulated PPPs, therefore transforming some LGFV projects into regulated PPPs will increase transparency and efficiency. Moreover, using PPPs to improve government capacity and remove red tapes is particularly beneficial in the Chinese context, where the government has played a heavy role in economic decisions. Piloting PPP projects under the new regulatory framework will ensure good practice be tested first and then expanded.

However, the government should stay vigilant against potential bias in favor of PPPs over traditional government procurement. It is a common misunderstanding in many countries that PPPs can reduce government spending needs and government debt. In fact, *ceteris paribus*, PPPs only change the timing of government cash flows, not the total net present value (NPV) of government spending over the lifetime of the project. PPPs also largely change the form of government liabilities from bank loans or T-bonds to other forms (*e.g.* commitments to pay the private partner). As the time frame of the budget or medium-term fiscal framework is much shorter than that of PPPs,

7. Such a debt ceiling applies to all borrowing needs of all levels of SNGs within one province.

8. General Office of State Council (2015).

Table 1. Selected PPP regulatory documents issued by the Chinese government since 2013^{1/}

Issuance Authorities	Issuance Date	Document Title
State Council	September 26, 2013	Instruction regarding government purchases of service from social sources.
State Council	May 19, 2015	Notice of instruction on promoting public-private partnerships in public service.
NDRC	December 2, 2014	Instruction regarding carrying out Public-Private Partnerships; Including the NDRC version of PPP contract guidelines ^{2/}
NDRC and China Development Bank	March 10, 2015	Notice regarding promotion of development financing to support public-private partnerships
NDRC <i>et al.</i>	April 25, 2015	Administration method for concession in infrastructure and public works ^{3/}
MOF	November 29, 2014	Operational guidelines for public-private partnerships (pilot)
MOF	December 30, 2014	PPP contract guidelines (pilot) ^{2/}
MOF	December 31, 2014	Government procurement administration method for public-private partnerships
MOF	April 7, 2015	Guidelines for fiscal affordability evaluation in public-private partnerships
MOF	December 15, 2015	Guidelines for Value of Money evaluation in PPP (pilot)
MOF	December 15, 2015	Notice regarding standardization of PPP comprehensive information platforms

Notes:

^{1/} Selected from about 40 PPP-related documents issued by the central government since 2013.

^{2/} The NDRC and MOF versions of PPP contract guidelines differ in quite a few important areas, which were also reflected in the two ministries' respective framework regulatory documents. Also, the targeted government bodies are different: the NDRC guidelines were issued to development and reform commissions at various local government levels, while the MOF guidelines were issued to local Bureaus of Finance.

^{3/} It was issued by NDRC in coordination with MOF, People's Bank of China and a few line ministries.

governments tend to have a bias in favor of PPPs over traditional government procurement. PPPs may or may not be more efficient than traditional government procurement. Therefore, the Value for Money (VfM) should be checked to determine if a project is more suitable for PPPs or traditional government procurement (Appendix 2, part B).

Moreover, most “private partners” in China are still SOEs, and truly private investors are hesitant to participate. The official Chinese wording for PPPs can be literally translated as “government and social capital partnership”. Social capital may cover all forms of firms, whether owned by the government or not. In fact, in the Chinese context, some SOEs enjoy natural advantages as private partners of PPPs. First, some construction-related SOEs owned by the central government or big municipalities (such as Beijing) have gained extensive experience in providing infrastructure to various local governments and their LGFVs. Second, banks are more willing to lend to SOEs than truly private companies on the same project. Third, and perhaps most importantly, SOEs are in a much stronger position in potential disputes than truly private companies. SOEs could resort to their connections within the government to resolve disputes, as the official ranks of some SOE managers may be equal to or even higher than that of the partner local government. Private companies may only resort to arbitration, administrative dispute resolutions or administrative lawsuits. Past experience has shown that private companies' chance of winning is not very high. Obviously, a PPP market dominated by SOEs is not ideal, which goes against the reform goal to grant “the market” (the private sector) a larger role. Therefore, a level playing field is needed between the SOEs and the truly private companies to compete for PPPs.

Finally, and perhaps most importantly, the lack of close coordination within the government has created confusion and uncertainties for private investors. The State Council, the NDRC, and the MOF have all issued framework documents for PPP regulation since late 2014. Table 2 shows that many important regulatory details either differ notably in the three documents or warrant

further clarification. Also, the exact roles of the two powerful ministries, the NDRC and the MOF, are still unclear for the whole life of PPP projects. In practice, the NDRC instructs local-governments' development and reform commissions (local DRCs) to follow its documents, while the MOF instructs local governments' bureaus of finance (local BOFs) to abide by its regulation. Such a fragmented approach may give rise to fiscal risks similar to those of LGFVs: many LGFVs' projects were approved by NDRC or local DRCs, but the fiscal risks were not checked by MOF or local BOFs. The next section will compare the three framework documents and other government measures taken so far in keeping with the international best practice, and make more detailed recommendations.

Table 2. Comparison of three framework regulatory documents issued by the Chinese government on public-private partnerships with international best practice

Issuance Authorities	MOF	NDRC et al.	State Council	International Best Practice
Issuance date	November 29, 2014	April 25, 2015	May 19, 2015	
Document title	Operational guidelines for public-private partnerships (pilot)	Administration method for concession in infrastructure and public works	Notice of instruction on promoting public-private partnerships in public service (submitted by MOF, NDRC, PBoC; approved and forwarded by State Council General Office)	One single law
Key legal term	public-private partnerships	concession	public-private partnerships	One single legal term
Whether LGFVs and other SOEs qualify as private partner	LGFVs and other SOEs owned by the same local government do not qualify	Unclear	LGFVs do not qualify unless (1) the firm has been transformed to be market-oriented; (2) The government debt it assumed in the past has been included in the government budget; (3) The firm explicitly announces that it will not assume the role of local government financing in the future. LGFVs are prohibited from assuming local government financing through minimum return guarantees etc. in PPPs.	A level playing field should be provided to SOEs and private companies that compete for PPPs. Also, an SOE's own debt should be included in the general government debt statistics, if it produces goods and services primarily on a nonmarket basis.
Whether VfM and fiscal affordability should be checked before the PPP project is awarded	Both VfM and fiscal affordability should be checked before government approval; otherwise the project is not suitable for PPP.	If the government needs to provide availability subsidy or evaluate VfM, follow the instruction of MOF.	Fiscal affordability should be checked. No mentioning of VfM.	Both VfM and fiscal affordability should be checked at various stages before the project is awarded: pre-feasibility, feasibility, tendering, bidding, negotiation and contract signing.
Whether VfM and fiscal affordability should be checked after the PPP project is awarded	Government approval is needed for contract revisions, and the government should evaluate the project every 3-5 years. However, it is unclear if VfM and fiscal affordability should be checked.	The signatories of the contract should reach an agreement if the contract needs revision, but it is unclear if VfM and fiscal affordability should be checked.	The public and the private partners should negotiate in case of disputes, but it is unclear if VfM and fiscal affordability should be checked.	Both VfM and fiscal affordability should be checked at various stages after the project is awarded: regular monitoring; contract re-negotiation.
Legal instruments to resolve disputes	The private partner can resort to arbitration or file civil lawsuits against the public partner. The private partner can file administrative lawsuits against government regulatory decisions.	The concessioner and the government can invite expert or third-party mediation. The concessioner can file administrative lawsuits against specific administrative decisions.	Unclear.	The applicable laws should be clarified, and the judges of the applicable courts should have enough expertise to rule on complicated PPP issues.

4. International best practices on PPPs regulation and implications for China

International best practices suggest four elements for an effective regulatory framework to manage the fiscal risks from PPPs:

(1) Good project selection: Infrastructure projects for both PPPs and traditional public investment should be chosen on the basis of cost-benefit analysis. All investment projects should be integrated into the capital budget cycle, medium-term fiscal framework, and overall public investment strategy; the MOF should be able to reject projects that are not fiscally affordable, *i.e.* reject projects that will jeopardize the country’s debt sustainability;

(2) Good institutional framework: This should include a dedicated PPP unit or public investment unit in the MOF to examine the fiscal affordability of projects;

(3) Good laws: This can be achieved with a national PPP framework law or by improving and harmonizing existing legal frameworks; and

(4) Good accounting and reporting: PPPs should be recorded and reported in a transparent way in budget documents, financial statements, and public sector statistics.

This framework is consistent with recent works by both the IMF and OECD on managing fiscal risks and international best practices.⁹ The main features of the framework *vis-a-vis* the measures taken so far in China are discussed as follows.

4.1. Good project selection

PPPs should be integrated into the government’s capital budget cycle, medium-term fiscal framework, and overall public investment strategy. In all cases, PPP projects should not be allowed to move forward outside the regular budget process applied to other investment projects. This implies three steps in the decision-making process:

- In the first step, the government decides whether a project is worthwhile from an economic and social perspective. The project is evaluated in the context of national priorities using standard project appraisal techniques (*e.g.* cost-benefit analysis), and it is included in the government’s overall investment planning framework, medium-term fiscal framework, and budget cycle.
- In the second step, the government decides whether a project that went through the first step should be implemented as traditional public procurement or as a PPP. This decision should be based on which method provides better VfM, *i.e.* which method provides high-quality infrastructure services at a lower cost over the long run.
- In the third step, if a PPP is considered the better procurement option for the project, it should follow a “gateway process” (Table 3). The latter is a due-diligence process under which a PPP project can be stopped or suspended at any point in time during its lifecycle if it is not deemed fiscally affordable or is regarded as too risky.

9. Hemming *et al.* (2006); Schwartz *et al.* (2008); IMF (2012); OECD (2012); Cangiano *et al.* (2013).

In China, clarification of NDRC and MOF's respective roles in the whole life of PPPs is paramount. Currently, NDRC and local DRCs are responsible for approving infrastructure projects based on existing national priority, feasibility studies, and administrative requirements. This seems similar to the first step above and presumably applies to both traditional government procurement and PPPs. The NDRC framework document does not require the checking fiscal affordability or VfM for each PPP project; rather, it refers to MOF instructions: "if the government needs to provide availability subsidy or evaluate VfM, follow the instruction of MOF" (See Table 2). The MOF framework document requires the checking of both VfM and fiscal affordability before government approval of the project, but it is unclear if they should also be checked at later stages. The State Council document requires checking fiscal affordability but not VfM. Ideally, China could follow the above three steps by clarifying the roles of NDRC and MOF, and ensure VfM and fiscal affordability are checked at each important gateway. Also, potential PPP projects above certain thresholds could be consolidated into a single national PPP pipeline, which should be consistent with national priorities stated in the 13th Five-Year Plan.

Table 3. A potential gateway process for China

		MoF/NDRC joint PPP unit evaluates projects and provides recommendation to both ministers on project approval/rejection
Phase 1: Pre-Feasibility	1	Pre-feasibility analysis, VfM, and budget affordability of project concept
Phase 2: Feasibility	2	Feasibility, VfM, and budget affordability of business case
Phase 3: Tendering	3	Review tendering document to ascertain VfM and budget affordability
Phase 4: Bidding, negotiation and contract signing	4	Review contract to ascertain VfM and budget affordability
Phase 5: Construction and Operation	5	Monitor project implementation, budget implications
	6	If contract renegotiation, ascertain VfM and affordability

4.2. Good institutional framework

Effective management of the fiscal risks from PPPs requires a strong institutional framework. International experience suggests that a dedicated PPP unit (or public investment unit) can be helpful, preferably in the MOF. Such a unit could carry out technical work to evaluate the fiscal risks of PPPs and control the gateway process. As of 2009, a dedicated PPP unit had been set up in over half (17) of all OECD member countries, of which at least 11 such units reside in the MOF (OECD, 2010). This allows the MOF to ensure that investment projects are affordable. However, other typical functions of PPP/investment units, such as the promotion of PPPs to attract private

sector participation and technical advisory functions, can reside in other entities—*e.g.* other ministries, SNGs,—as long as the MOF retains affordability and risk oversight.

In China’s context, a national PPP unit is necessary to ensure close coordination between the NDRC and the MOF. The MOF has established a PPP unit (called PPP center) in 2014, which is generally consistent with common international practice. However, given the important role of the NDRC in public investment, the PPP unit certainly needs to coordinate daily with the NDRC on individual projects. Or, the PPP unit could be expanded by inviting NDRC representatives and possibly other line ministries to make itself a “one-stop shop” for any PPP regulatory issues. In the latter case, the MOF and the NDRC are jointly responsible for the gateway process (Table 3)¹⁰. Moreover, the national PPP unit will need to coordinate with the People’s Bank of China (PBoC) and the China Banking Regulatory Commission (CBRC) since: (1) the major state-owned banks are the key creditors of LGFVs/PPPs, and they hold significant levels of PPP risk; and (2) sound collaboration between the fiscal arm of the government and the monetary authorities would bolster the generation of high-quality fiscal and debt statistics. The same principles on DRC-BOF coordination could also apply to PPP units already established at the SNG level.

Moreover, post-contractual regulation and audits need to be strengthened significantly. The focus of the current regulation has been project selection and appraisal before the contract is signed. However, the regulatory framework and institutional arrangement still lack details for the post-contractual phase (*i.e.* after the contract is signed but before the contract ends). As more projects become operational in the next few years, risks might emerge without appropriate regulation. In particular, any form of renegotiation between the public partner and the private partner, including *ad-hoc* price adjustments and changes of financing models, should be approved by the PPP unit at the appropriate level. Similarly, the audit offices at the national and subnational levels could also be actively involved in post-contractual audits and *ex post* audits (*i.e.* after the contract ends) of PPPs.

4.3. Good laws

Countries have implemented diverse legal arrangements on PPPs. These range from PPP framework laws to sector regulations. For example, Brazil, France, Korea, and South Africa have passed PPP framework laws, while Australia and the United Kingdom have dedicated national regulatory guidelines. In most countries, PPPs are only governed by fragmented low-level sector regulations or even the contracts themselves.

PPPs governed by framework laws are generally more successful in reducing fiscal costs and risks.¹¹ Fiscal risks often materialize in renegotiations, particularly when circumstances change, but neither the contract nor the low-level sector regulation provides clear risk assignments. Therefore, a PPP framework law will provide the best legal clarification to reduce fiscal costs and risks, as well as legal assurances for potential private investors in infrastructure.

Best international practices suggest that a PPP framework law should address seven key areas:

10. The example of gateway process is based on the South Africa and Australia’s State of Victoria case, which are considered international best practices. The recommendation of a joint MOF/NDRC PPP unit to control the gateway process is one option for setting up a similar institutional framework in China.

11. Guasch (2004).

- (1) Clearly define PPPs and their scope (*i.e.* in terms of level of governments and sectors of the economy to be covered);
- (2) Fully promote the integration of PPPs with the government's overall investment strategy and budgetary process;
- (3) Clearly assign roles and responsibilities between the various public and private entities typically involved in PPP operations. The role of the MOF as the gatekeeper of public finances should be clearly described in the law;
- (4) Set and/or require transparent mechanisms for competitive bidding processes;
- (5) Provide explicit guidelines for renegotiation and termination of PPP contracts, including dispute resolution mechanisms;
- (6) Establish limits/ceilings on aggregate public sector exposure to PPPs as well as contract renegotiation; and
- (7) Specify transparent accounting, reporting, and auditing procedures in line with international standards.

In China, the three PPP framework documents certainly need to be consolidated into a single high-level PPP regulatory document to reduce confusion and uncertainties. In particular, the respective scopes of “concession” and “PPP” need to be clarified. Generally speaking, concessions are in fact user-funded PPPs, and therefore the concept of PPP is more comprehensive. Regardless of the exact label of a project, it should be covered by the single document as long as it involves a long-term contract between the government and a private contractor to build infrastructure and provide services. Also, whether disputes in PPPs should resort to civil laws or administrative laws are important in the Chinese context. Civil laws generally put both public and private partners on an equal footing as business counterparts, which may encourage more private sector participation in infrastructure. Administrative laws generally treat the public partner as the authorities answering to specific requests of the private sector, as the current relationship stands. In most countries, such disputes are governed by civil laws. In any case, the applicable laws need to be clarified, and the judges of the applicable courts should have enough expertise to rule on complicated PPP issues. Finally, transparent mechanisms for competitive bidding processes will significantly improve governance, because projects are assigned by the SNGs to the LGFVs mostly in a non-competitive fashion.¹²

The consolidated high-level document could be developed into a PPP framework law at a later stage. The State Council could first issue the consolidated PPP regulatory document. Once experience is gained after several years under these regulations, a revised version could be submitted to the National People's Congress (NPC) to become the formal PPP law. It is crucial that future PPP regulations are kept consistent with the revised budget law, to ensure appropriate budget coverage and maximum disclosure of information.

12. Many of these important elements may have implications for other laws or legal practices in China, which might need to be addressed in a broader legal reform in China.

4.4. Good accounting and reporting

Standards and practices on PPPs vary across countries, but recent international standards are in line with the best practices. Many countries have not established national accounting and reporting standards for PPPs, while others' practices can be considered more advanced in monitoring all PPPs, including user-funded projects. For example, Australia and Canada record the most PPPs on the government balance sheet. France accounts for government-funded PPPs in the government balance sheet, while it reports data on user-funded PPPs in complementary budget documents. These best practices are consistent with the recently approved international standards: For accounting purposes, the International Public Sector Accounting Standards 32 (IPSAS 32), and for reporting purposes, the IMF's Government Finance Statistics Manual 2014 (GFSM 2014) and the 2011 Guide on Public Sector Debt Statistics (PSDS 2011). These standards are all accrual-based.

The adoption of IPSAS 32, GFSM 2014, and PSDS 2011 should lead, in practice, to most PPPs being treated on-budget (Funke *et al.*, 2013). For example, according to IPSAS 32, projects undertaken in the form of a PPP should be considered public and therefore affect the main fiscal aggregates, as long as the government controls or regulates what services, to whom, and at what price the services are provided. Otherwise, the project carries out a commercial activity, and should be recorded differently. As a result, the incentive to pursue PPPs as a way to circumvent budgetary restrictions and/or debt limits would be minimized. This is because debt and the overall deficit would increase, regardless of whether the infrastructure is procured through PPPs or traditional public procurement.¹³ This would be a major improvement in government reporting, where most PPPs are currently treated as off-budget. Appendix 3 provides further details on the fiscal implications of the implementation of IPSAS 32. The IMF and the World Bank have also jointly developed the PPP Fiscal Risk Assessment Model (PFRAM) to assess fiscal risks from individual PPP projects based on IPSAS 32.

As in many other emerging economies, China's government accounting is cash-based, which tends to underestimate fiscal risks from PPPs. The discrepancy between cash and accrual accounting of PPPs can be substantial, particularly at early stages of the project cycle. In principle, cash-based systems do not require that expenditures or debt be recorded at early stages of the PPP project cycle, when the private partner, instead of the government, spends cash to construct the project. This can result in an underestimation of the medium- and long-term impacts of PPPs (Appendix 2, part B).

However, it should be stressed that the transition from cash to accrual standards will take time, which necessitates a gradual approach in China. Applying IPSAS 32 will most likely be a long-term process for China, because the standard needs to be tailored to the country's specific circumstances. Its implications on headline fiscal indicators should be carefully evaluated, particularly in the context of existing fiscal rules. Also, the coverage needs to be as broad as possible to monitor all PPPs. Finally, such a reform needs to aim at improving fiscal transparency and management of fiscal risks while ensuring budget affordability and macro-fiscal sustainability. All these will require significant efforts to reform current information systems and to develop the internal capacity to

13. In China's context, government liabilities will increase regardless whether the project will be procured through PPPs or traditional public procurements, as long as the government controls or regulates what services, to whom, and at what price. Also, in this case, government liabilities will increase regardless whether the private partner is an SOE or a truly private company.

handle them. In addition, the move to accrual accounting needs to be appropriately sequenced with other public financial management reforms.

As a start of the long-term transition process, China could first disclose new projects in the budget. For example, the contract value and long-term implications of new PPP projects could be first disclosed in complementary budget documents. This could include cash spending and other commitments beyond the timeframe of the medium-term fiscal framework. When government capacity improves, the NPV of total government assets and liabilities arising from individual PPP projects could also be disclosed, following international standards such as IPSAS 32. As more and more projects are disclosed in this way, a partial government balance sheet could be gradually compiled. Appendix 4 describes a suggested proposal of disclosure requirements for PPPs and guarantees.

With the above disclosure requirement, PPP ceilings could be imposed to complement formal fiscal rules in China. Fiscal rules are common across countries, which typically include ceilings on debt, deficit, and/or spending. In China, SNGs essentially had an explicit fiscal rule of “no borrowing without central government approval ” before 2015 according to the budget law adopted in 1994; now the provincial governments are subject to debt ceilings set by the central government. However, fiscal rules can be easily circumvented by PPPs particularly in countries with cash-based accounting systems and limited coverage of headline fiscal indicators. In China, SNGs used LGFVs to circumvent borrowing prohibition in the past, and they still have strong incentives to use PPPs to circumvent the recently imposed debt ceilings. To contain fiscal risks, some countries have introduced ceilings/limits for overall government exposure to PPPs, which complement existing debt ceilings. Potential PPP ceilings for SNGs in China could be the following:

- PPP contract value over current revenue ratio (excluding land sale proceeds) or over GDP ratio.
- PPP debt over current revenue or GDP ratio.
- Government commitments in PPPs over current revenue or GDP ratio.

5. A strategy to establish a PPP regulatory framework in China

Based on the four-pillar framework described above, we propose a three-stage strategy for gradually implementing a new regulatory scheme for PPPs. It should be noted from the outset that careful policy sequencing is crucial. For that reason, our proposal distinguishes actions to be taken in the near, medium, and long term. The authorities in fact have made notable progress in the “near-term” stage of our proposed strategy, but more work is needed to ensure the effectiveness of the regulatory framework. Following the reform tradition in China, our proposed strategy starts at the central government level and gradually expands to the SNG level, once capacity has been strengthened.

In the near term (1–2 years), the central government could aim to:

- Classify and disclose existing LGFV projects and new PPPs as part of the budget documents. The MOF has classified SNG debt identified by the 2013 NAO report into three types: (1) general obligations; (2) obligations arising from specific revenue-generating projects and (3) debt converted to company debt through PPPs. In addition, the MOF documents require the

disclosure of government commitments in PPPs in the government’s comprehensive fiscal report, when such a reporting system is ready. However, to mitigate fiscal risks, converting LGFVs to PPPs cannot be limited to “relabeling” or “reclassification”; rather, more effective regulation is the key, with steps recommended in detail below.

- Evaluating the introduction of ceilings/limits for PPPs at the central and subnational government level. In addition to the newly introduced SNG debt ceilings, the MOF could discuss with SNGs potential PPP ceilings, taking into consideration their current outstanding debt, infrastructure needs, and economic growth prospects.
- Gradually introducing PPP regulations in line with the seven key areas discussed above. Progress has been made since 2013, with over 40 regulatory documents issued by central government entities. However, consolidation of these documents, especially the three framework documents into a single framework document, is urgently needed to reduce confusion and uncertainties.¹⁴
- Improving the coordination between MOF, NDRC, PBoC, CBRC over LGFVs and other PPP issues. This is of paramount importance at the current stage.

In the medium term (2–5 years), the following key elements of an effective regulatory framework could gradually take shape:

- A consolidated PPP regulatory document could be issued by the State Council. Any new central government or SNG PPP projects should follow the national PPP regulation and be integrated into the normal budgetary process. They are subject to the scrutiny of the corresponding people’s congress.
- The PPP unit in the MOF could be expanded into a national PPP/public investment unit as a “one-stop shop” for all PPP regulatory issues. As noted earlier, the PPP unit could include representatives of NDRC and line ministries, and coordinate with PBoC and CBRC. The unit could oversee fiscal risks of all major PPP projects above a certain threshold, regardless of the level of government. To avoid the possibility of having too many small projects to circumvent the threshold, key documents of projects below the threshold should be submitted to the unit for monitoring purposes. By consolidating the two PPP contract guidelines already issued by the MOF and NDRC (Table 1), the unit would also develop standardized contracts as well as detailed procedures and methodologies for selecting, evaluating, and approving PPP projects. At this point, SNGs could outsource the evaluation of main PPP/investment projects to the national unit, while capacities are being developed at the subnational level.
- PPP ceilings could be enforced at both central and subnational government levels. The enforcement of PPP ceilings for SNGs would be supervised by both the central government and the subnational people’s congress.
- Reporting of PPP transactions could be gradually improved in line with international standards and the plan of statistical improvement.

In the longer term (5–10 years), an effective regulatory framework would be fully developed in accordance with international best practice:

14. A notice issued jointly by the MOF and the NDRC on May 28, 2016, called for more coordination on PPPs between BOFs and DRCs at the subnational level, which is a positive step forward. However, the three framework documents have yet to be consolidated.

- After 5–10 years of experience, the consolidated PPP regulatory document could be upgraded into a PPP framework law passed by the NPC.
- Monitoring PPP projects would become a regular part of the annual budget and the medium-term fiscal framework of all levels of the government.
- The national PPP/public investment unit would be able to effectively oversee fiscal risks of major projects, while provincial PPP/public investment units would oversee smaller projects within a consistent oversight framework.
- Information about PPP projects and their fiscal impact in the near-, medium-, and long-terms would be regularly disclosed in detail to the public in budget documents.

6. Concluding remarks

This paper has shown that there is still much room to strengthen the PPP regulatory framework in China. The increase in local government debt through LGFVs—essentially a specific form of unregulated PPPs—points to major regulatory weakness in this area. The government’s recent promotion of a third generation of PPPs and its regulatory framework is a welcome development. However, a few key issues need to be resolved. These include vigilance against government bias in favor of PPPs, providing a level playing field for SOEs and truly private companies to compete for PPPs, and improving coordination within the government (particularly between the MOF and the NDRC). Also, all the framework regulatory documents need to be consolidated to remove confusion and uncertainties. We propose a four-pillar regulatory framework that promotes good project selection, good institutional framework, good laws and good accounting and reporting practices. Our proposal can help improve the current Chinese framework in a three-step strategy, in order to ensure a balance between promoting infrastructure and containing fiscal risks.

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Appendix 1. Examples of local government financing vehicles in China¹

City C's example

City C is a major city in Western China. City C set up its LGFV in 1993 to finance infrastructure projects, manage state-owned infrastructure assets, and manage land on behalf of the government of City C. The LGFV is fully owned by the state-owned enterprise committee of the government.

As of end-2007, the LGFV had nine subsidiaries. Three subsidiaries were fully owned by the LGFV: (1) City C Chengtou Real Estate Development Company, (2) City C Chengtou Road and Bridge Management Company, and (3) City C Hengcheng Investment Company. The other six subsidiaries were majority-controlled by the LGFV: (4) City C Development Company, (5) City C QJZB Airport Company, (6) City C South District Construction Investment Company, (7) City C Jiashiheng Construction and Development Company, (8) City C Pufeng Construction Engineering Company, and (9) City C Renewable Energy Development Company.

The core business of the LGFV covers the following four areas in City C: (1) infrastructure construction, (2) road and bridge maintenance and management, (3) real estate development, and (4) land reserves and management. On behalf of the government of City C, the LGFV can improve a piece of land allocated to it and then submit to the government to sell the land. Proceeds from land sales can be used to repay loans for infrastructure projects.

The LGFV issued a bond in 2008 to partly finance six infrastructure projects. One project was to renovate an old district and the other five were all road and bridge construction projects for modern transportation. There was no collateral for the bond. The issuer and bond were rated AA+ and AAA, respectively, by a rating agency based in Shanghai.

City H's example

City H is a medium-sized city in central China. City H established its LGFV in 1999. In 2002, the government of City H transferred three public utilities companies to be the subsidiaries of the LGFV: City H Public Transportation Company, City H Water Company, and City H Sewage Company. In 2006, the government transferred another three companies to be the LGFV subsidiaries: City H Investment Company, City H Local Railway Company, and City H High Technology Development Company. In the same year, City H's land reserve center was also transferred to the LGFV. In 2008, some other "high-quality assets" were given to the LGFV. The LGFV is fully owned by the state-owned enterprise committee of the government of City H.

The core business of the LGFV covered the following four areas in City H: (1) infrastructure construction, (2) public utilities, (3) land development and management, and (4) management of state-owned assets.

In 2009, the LGFV issued a bond to partly finance seven infrastructure projects: two water pipeline projects, two sewage projects, two road construction projects, and an environmental project for lakes.

1. Based on disclosure documents published in China Securities Newspaper for LGFVs in City C, City H and City S before they issued corporate bonds.

The credit worthiness of the bond was enhanced by two measures: (1) The LGFV had previously signed build-transfer (BT) contracts with the government of City H and expected to receive payments in the next few years. Such future BT payments were put up as collateral for the bond; and (2) Another company provided a guarantee for the bond. The guarantor is a steel company in City D (in the same province as City H), which is fully owned by the provincial government. The issuer and the bond were rated AA- and AA+, respectively, by a rating agency based in Beijing.

City S's example

City S is a fairly large city in northern China. City S established its LGFV in 2005. From 2005 to 2008, City S government transferred three public utilities companies to the LGFV: City S Sewage Company, City S Water Company, and City S Public Transportation Company. In December 2009, the LGFV established four new subsidiaries: City S Chengtou Engineering Detection Company, City S Chengtou Engineering Consulting Company, and City S Chengtou Construction and Development Company, and City S Chengtou Pipeline Construction Company. The LGFV is fully owned by the Construction Bureau of the City S government.

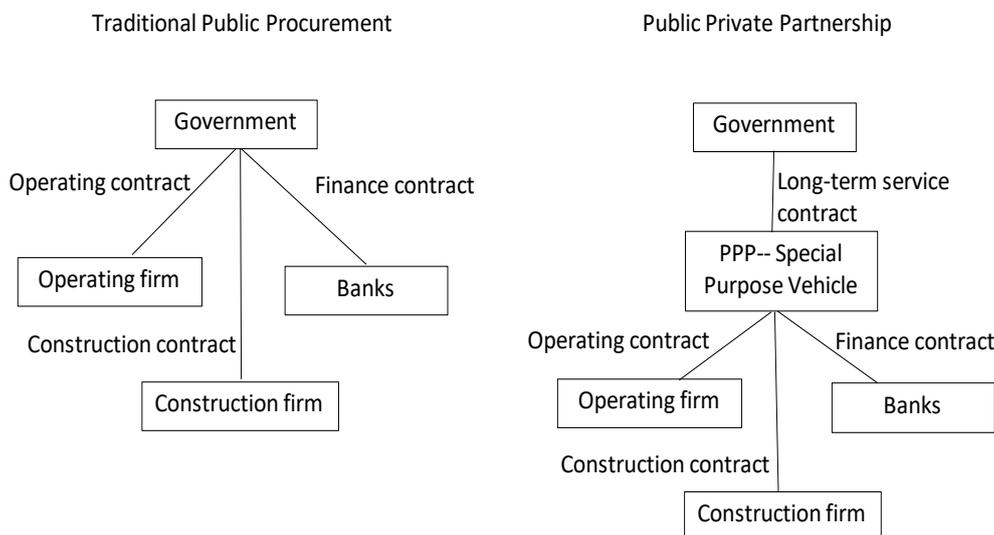
In early 2011, the LGFV issued a bond to partly finance two projects: a bridge and a road. Funds to repay the bond would come from the LGFV's "ordinary business" and possibly sales of certain assets. There was no collateral for the bond. The issuer and the bond were both rated AA+ by a rating agency based in Beijing.

Appendix 2. A Primer on PPPs

Part A: Benefits and Risks of PPPs

What are PPPs? PPPs are long-term contracts between the government and a private contractor in which the contractor agrees, at its own cost, to build, operate, and maintain an asset in order to provide a service for which the government remains accountable; in return, the government promises either to pay for the service or to allow the contractor to collect fees from users. Usually, a special-purpose vehicle (SPV) is established to run the project (see Appendix Figure 1 for the comparison between a traditional public procurement project and a typical PPP structure). In practice, there may be more layers of subcontractors and more SPVs involved. The time horizon of a long-term contract goes beyond the regular government budgetary exercise, which obliges the government to make financial payments and/or commitment outside its annual budget and medium-term fiscal framework (if there is any). The PPP projects are ultimately government-funded (*e.g.* through availability payments, revenue guarantees), user-funded (*e.g.* through highway tolls), or a combination of both.

Compared to traditional public procurement, the main benefit of PPPs is potential efficiency gains. This is because the private partners focus on cost-effectiveness through the introduction of better technology, innovation and know-how, as well as improved accountability, transparency, and competition. However, the efficiency gains from PPPs could be offset by the typically higher borrowing costs faced by the private sector, as well as the significantly higher transaction costs of PPPs. Empirical analyses suggest that whether or not PPPs have achieved their efficiency objectives in practice remains an open question (IMF, 2007).



Appendix Figure 1. Traditional public procurement versus public-private partnership

A common misperception about PPPs often results in a government bias in favor of PPPs over traditional procurement. The private partner in fact provides a “bridge-loan” style of financing to the government in PPPs. Therefore, the government may be relieved temporarily from cash drains when infrastructure projects are being constructed. From the perspective of cash-based government budget, PPPs may seem to allow for infrastructure “off-budget” and “for free” in the short term. Such a misperception results in a common government bias in favor of PPPs. Many governments even set up PPPs to take advantage of the feature and circumvent budget constraints. However, *ceteris paribus*, PPPs only change the timing of government cash spending, but not the total net present value (see Part B below).

Large fiscal costs and fiscal risk have arisen from PPPs in both developing and advanced countries. Both traditional procurement and PPPs share common project risks, such as construction and demand risks. However, the above government bias and possible manipulation of PPPs add an important layer to the common project risks. An inadequate budgetary and/or statistical treatment may allow governments to ignore the impact of PPPs on public debt and deficit. In practice, governments often end up bearing more fiscal costs and risks than expected in the medium and longer term. Here are some examples:

- *Mexico in mid-1990s:* The government undertook an ambitious program of private toll road concessions in the early 1990s. Most concessionaires soon ran into financial difficulties due to both cost overruns and traffic shortfalls. In 1997, the government eventually took over the private concessions and assumed about US\$7.7 billion in debt.
- *Hungary in late-1990s:* The M1 highway was built using PPPs, but the traffic forecasts turned out to be too optimistic. There was a strong diversion of traffic to a toll-free parallel road. The project was eventually nationalized with the government fully assuming the traffic revenue risk.
- *Portugal in early 2000s:* Most of the highway system was built using PPPs by a government agency outside the central government. For example, Estradas de Portugal was regarded as a state-owned enterprise and thus excluded from the coverage monitored by the European standards. The highway system was over-built resulting in many highways with insufficient

traffic, which make them not profitable. In the aftermaths of the 2009 global financial crisis, the fiscal risks materialized. Following the agreement between the Eurostat and the Portuguese authorities in 2011, Estradas de Portugal was reclassified as part of the central government. The government took over many of these PPPs, adding to its deficit and debt by a large amount.

- *Spain in early 2000s*: Several local airports and railways were built by local governments using PPPs. The projects were financed through local banks (“cajas”), reportedly at times facilitated by political interests. Traffic demand was largely overestimated, resulting in insufficient revenues that cannot even cover maintenance costs. By late 2000s, many of these airports and railway lines were closed shortly after their completion. However, local governments had to continue to honor their long-term commitments with the private sector, which were in many cases financed through transfers from the central government.

Part B: Government procurement versus PPP: A simple model of cash flows

A simple model can illustrate that *ceteris paribus* PPPs only change the timing of government cash flows, but not the total net present value (NPV). First, assume a non-toll road will be constructed and operated through government procurement. The government will spend \$100 to construct the road in Year 1 and \$3 each year during Year 2 to Year 15 to maintain the road. Using a discount rate of 5%, the NPV of total government commitment in Year 0 is \$123.5. Then, assume the same project is carried out as a government-funded PPP. A private company will spend \$100 to construct the road in Year 1 and then spend \$3 each year during Year 2 to Year 15. However, the government will compensate the company with an annual fee from Year 3 to Year 15. If there is no efficiency difference, no company profit, no borrowing costs, NPVs of government commitment using both methods should be exactly the same. That is, both NPVs will be \$123.5, and the annual fee paid by the government to the company will be \$14.5 per year. Therefore, under these assumptions, procuring through a PPP only changes the timing of government cash outflows, not the total NPV of government commitment, if the PPP is equally efficient as traditional procurement (see Appendix Figure 2 below).

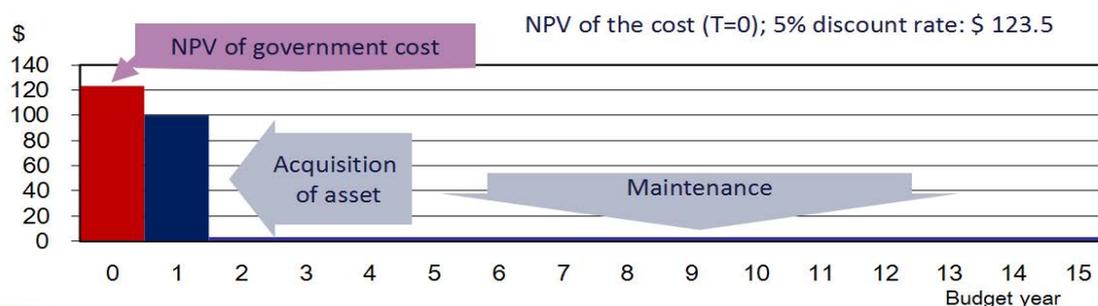
What if the road can charge user fees? NPVs are still the same. In the government procurement, the government will receive the user fees as its revenue. Therefore, the government procurement’s NPV will decrease. In the PPP, the company will receive user fees. Thus, it will charge the government lower annual fees and reduce the PPP’s NPV by the same amount.

What if the government and the company need to borrow to build the road? NPVs are still the same. The government procurement’s NPV will increase by the interest costs. In the PPP, the company will charge the government higher annual fees to cover its own interest costs. Assuming the interests paid by the government and the company are the same, both NPVs increase to the same level.

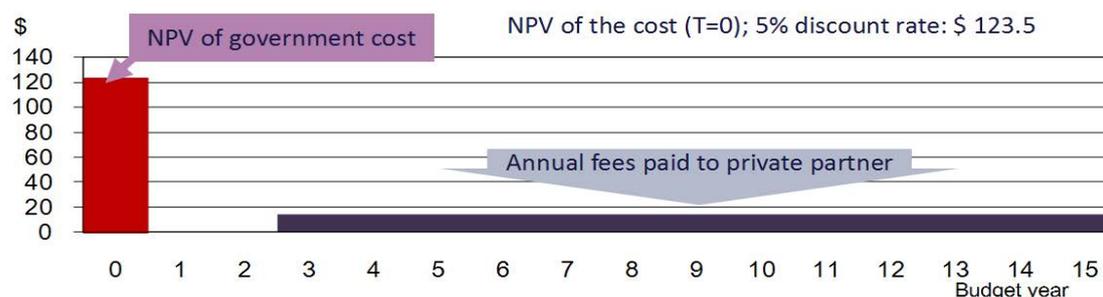
Can there be efficiency gains? Yes, but it depends. If the company is more efficient than the government, then the PPP’s NPV should be lower than that of the government procurement. However, some other factors may offset such efficiency gains and push the PPP’s NPV upward. This includes company profits, typically higher company interest costs and PPP transaction costs. Therefore, a value-for-money analysis is needed to determine which method is more efficient.

What is the implication for cash-based budget decision? Government will have a bias in favor of PPPs. When a government prepares a cash-based annual budget for Year 1, it will show a very high cash expense with the government procurement (\$100 to construct the road). However, it shows no cash expense at all with a PPP. As most government budgets (including China’s) are cash-based, this results in a bias in favor of PPPs. However, *ceteris paribus*, PPPs do not change the total NPV of the government, which can only be captured by accrual-based accounting rules such as IPSAS 32.

Government procurement



PPP



Appendix Figure 2. NPV: Government procurement versus PPP

Appendix 3. International Public Sector Accounting Standard 32

International Public Sector Accounting Standard 32 (IPSAS 32) is the current international public sector accounting standards for PPPs. Its formal name is “Service Concession Arrangements: Grantor”, which was released by the International Public Sector Accounting Standards Board (IPSASB) in October 2011. It is compatible with the International Financial Reporting Interpretations Committee (IFRIC) 12, “Service Concession Arrangements”, which is the corresponding international accounting standard for the private-sector companies (operator). Both standards are accrual based.

IPSAS 32 covers both government-funded and user-funded PPP contracts. A service concession arrangement (PPP contract) is a binding arrangement between a grantor (the government) and an operator (private sector contractor): (a) The operator uses the service concession asset to provide a public service on behalf of the grantor for a specified period of time; and (b) The operator is compensated for its services over the period of the service concession arrangement. Thus, both

government-funded and user-funded PPP contracts, as defined in Appendix 2, are covered by this standard.

IPSAS 32 requires that the assets of a PPP and the corresponding liabilities be recorded on the grantor’s (government) balance sheet if the following conditions are met:

(a) The grantor controls or regulates *what services* the operator must provide with the asset, *to whom* it must provide them, and *at what price*; and

(b) The grantor controls—through ownership, beneficial entitlement or otherwise—any significant residual interest in the asset at the end of the term of the arrangement. In addition, for an asset used in a service concession arrangement for its entire useful life (a “whole-of-life” asset), only the conditions in paragraph (a) need to be met.

For a government-funded project (financial liability model), IPSAS specifies the following accounting treatments: Initially, the grantor (government) records the same amount of asset and liability at the fair value. Then, the grantor accounts the following as expenses: asset depreciation (consumption of fixed capital), finance charge (interests), and charges for services paid to the operator. The grantor accounts as financing reduction in liability (repayment of principal).

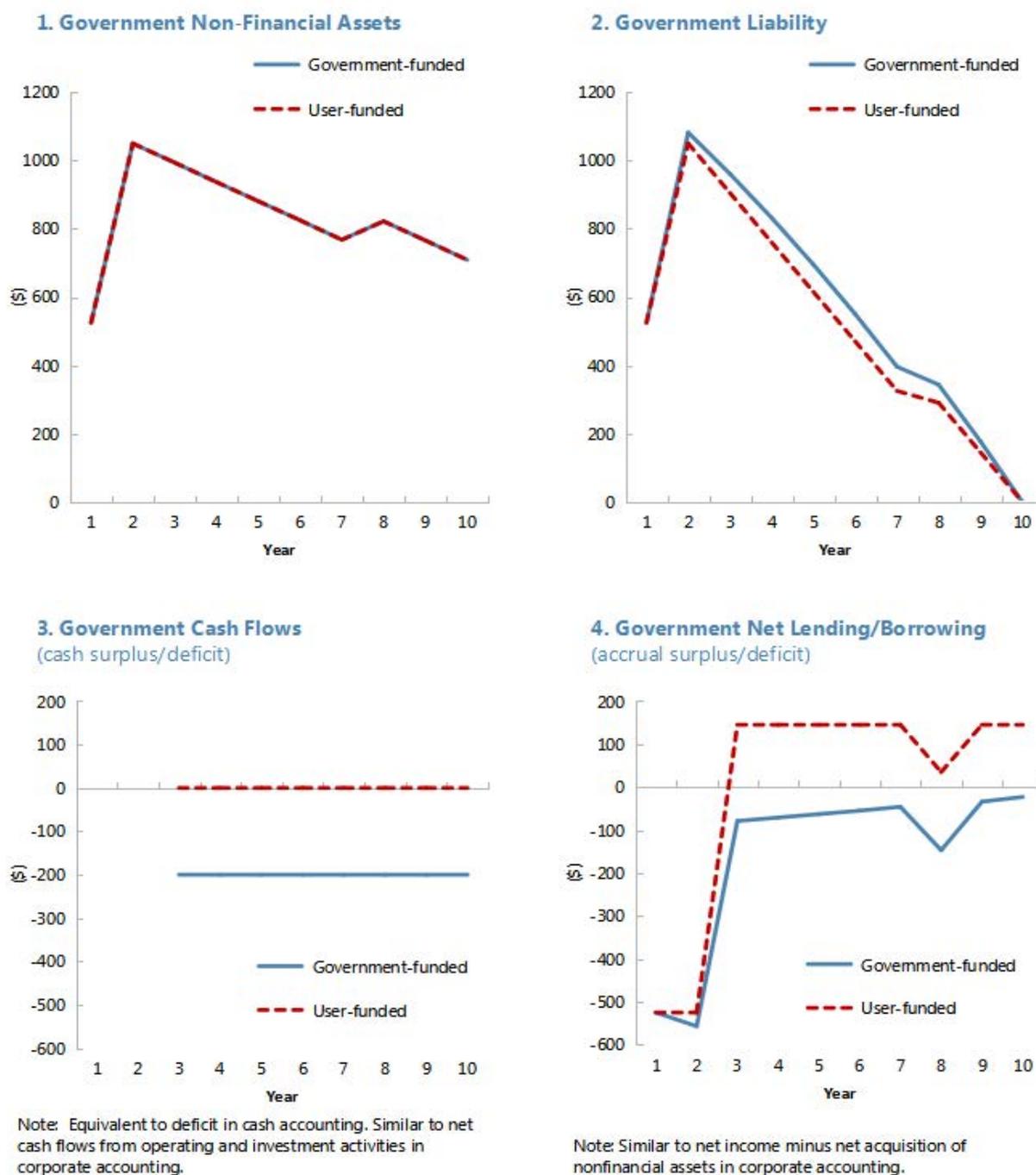
For a user-funded project (grant of a right to the operator model), IPSAS specifies different accounting treatments. Initially, the grantor (government) records the same amount of asset and liability at the fair value. Then, the grantor accounts only one expense: asset depreciation. Most importantly, the grantor records the revenue accrued during the contract period. Additionally, the grantor accounts as financing reduction in liability, which is equivalent to the accrued revenue in each year.

What if a project is funded by the combination of the government and the users? IPSAS requires that it be divided into a government-funded part and a user-funded part. The above accounting rules are then applied to each part, respectively.

IPSAS 32 provides an illustration example. The example is to build a road through a build-operate-transfer (BOT) contract. The contract lasts for 10 years, during which the road will be constructed in the first 2 years, and the private-sector company will operate the road for the remaining 8 years. The cost of constructing the road base and the surface is \$940 and \$110, respectively. The usable life of the base and the surface is 25 years and 6 years, respectively. This means that in Year 8, the surface will be re-constructed. There are two approaches of financing the project through PPPs: (1) Government-funded: the government pays the operator \$200 per year during Years 3–10. (2) User-funded: the government allows the operator to charge users \$200 per year during Years 3–10.

The major accounting items of the IPSAS 32 examples are illustrated in Appendix Figure 3. In the top-left chart, government non-financial assets are recorded identical in both user-funded and government-funded PPPs. In the top-right chart, government liabilities are broadly similar in both cases, with the only difference arising from the different treatment of interest and amortization. Government liability in user-funded PPP is only slightly lower, because it does not incur interest cost. In the bottom-left chart, there are no cash flows in user-funded PPP, while government-funded PPP requires cash payments by the government to the private partner. In the bottom-right chart,

total government net lending/borrowing (*i.e.* the overall surplus/deficit on an accrual basis) in user-funded PPP is higher due to the imputation of accrued revenue (*i.e.* revenue is imputed as if the government collects the user fees directly and use these fees to repay the private partner).



Appendix Figure 3. IPSAS 32 Illustrative Examples

According to IPSAS 32, PPPs should be recorded similarly to traditional government procurement, which will reduce the government bias in favor of PPPs. The assets and liabilities for both government-funded and user-funded projects are recorded on government balance sheet. This is because the government is ultimately responsible for the public services, even in user-funded projects. In reality, when many user-funded projects encounter various difficulties, it is often

the government who takes over those projects and consolidates their assets and liabilities onto its balance sheet. IPSAS 32 effectively puts PPPs and government procurement on an equal basis, so that the decision to choose between the two will be mainly based on efficiency gains.

Appendix 4. IMF proposal of disclosure requirements for PPPs and guarantees²

PPPs firm and contingent liabilities

For each PPP project or group of similar projects, budget documents and end-year financial statements should provide information on the following:

- Future service payments and receipts (such as concession and operating lease fees) by government specified in PPP contracts over the following 5–30 years.
- Details of contract provisions that give rise to contingent or firm but variable payments or receipts (*e.g.* guarantees, shadow tolls, profit sharing arrangements, events triggering contract renegotiation), which need to be valued to the extent feasible.
- Amount and terms of financing and other support for PPPs provided through government on-lending or via public financial institutions and other entities (such as SPV-owned or controlled by the government).
- Information on how the project affects the reported fiscal balance and public debt, and whether PPP assets are recognized as assets in the government balance sheet. It should be noted whether PPP assets are recognized as assets on the balance sheet of any SPV or private sector partner.

Government guarantees

Irrespective of the basis of accounting and the type of transaction that they relate to, information on guarantees should be disclosed in budget documents, within-year fiscal reports, and end-year financial statements. Guarantees should ideally be reported in a Statement of Fiscal Risks, which is part of the budget documentation and accompanies financial statements, with updates provided in fiscal reports. Information to be disclosed annually for each guarantee or guarantee program includes:

- A brief description of its nature, intended purpose, beneficiaries, and expected duration.
- The government's gross financial exposure and, where feasible, an estimate of the likely fiscal cost of called guarantees.
- Payments made, reimbursements, recoveries, financial claims established against beneficiaries, and any waivers of such claims.
- Guarantee fees or other revenue received.
- An indication of the allowance made in the budget for expected calls on guarantees, and its form (*e.g.* an appropriation, a contingency).
- A forecast and explanation of new guarantees to be issued in the budget year.

During the year, details of new guarantees issued should be published (*e.g.* in the Government Gazette). Within-year fiscal reports should indicate new guarantees issued during the period,

2. See Schwartz *et al.* (2008).

payments made on called guarantees, and the status of claims on beneficiaries, and update the forecast of new guarantees to be issued in the budget year and the estimate of the likely fiscal cost of called guarantees.

Finally, a reconciliation of the change in the stock of public debt between the start and end of the year should be provided, showing separately that part of the change attributable to the assumption of debt arising from called guarantees.