The Seven Sins of Flawed Public-Private Partnerships

by Augusto de la Torre and Heinz Rudolph
There are three stakeholders in a public-private partnership (PPP): (a) the government in office, (b) private firms (financial and non-financial) and investors (individual and institutional), and (c) final beneficiaries (taxpayers or users, present and future). The raison d’être of PPPs is threefold: (i) to crowd in private firms and investors into projects that they would otherwise not undertake; (ii) to transfer to the private sector a significant part of the risks and costs that the government would otherwise fully absorb; and, (iii) to ensure that the project’s efficiency/quality is at least equal to that obtained if the government alone carried all costs and risks.

Several important (yet often ignored) implications follow. First, outsourcing (e.g., construction and maintenance) to the private sector does not by itself constitute a PPP if all risks and costs are, in one way or another, still borne by the government. Second, a PPP does not reduce total risk; it simply distributes it differently, involving private sector firms and investors. Third, the total costs borne by the final beneficiaries would be lower under a PPP (compared to a project whose costs and risks rest completely in the government’s balance sheet) only if the PPP achieves efficiency gains; otherwise, what beneficiaries save in taxes they would pay in user fees, although, under a PPP, more of the costs would be assigned to direct beneficiaries/users, than to taxpayers at large. Fourth, that a PPP can provide (cash) budget relief may be a welcome corollary for the government in office but it is not a core objective of a PPP.

The problem is that achieving in practice the raison d’être of PPPs is much more complicated than often believed. In particular, things are biased against final beneficiaries. Why? Because, under a weak PPP policy, regulatory and institutional framework, the interests of private firms and investors, on the one hand, and those of the government in office, on the other, do not naturally coincide with the interests of present and future taxpayers and users. The government in office has incentives to get the projects on the ground as soon as possible (the "monument effect") without affecting today’s budget but leaving liabilities to future governments (the "myopic cash saving" effect). It also has incentives to underestimate or hide contingent liabilities associated with PPPs (the "concealment" effect). For their part, private firms and investors involved in PPPs have incentives to earn as much profit as possible while transferring as much of the costs and risks as possible to the government (the "one-sided bet" effect—heads I win, tails the government loses). In the absence of a sound PPP policy

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2. As regards risks, this note focuses only on the idiosyncratic risks associated with a particular PPP. Aggregate and systemic risks, which affect economic activities within a given national jurisdiction across the board, by definition cannot be diversified away within that jurisdiction. Aggregate and systemic risks are incorporated in sovereign risk ratings and can only be reduced slowly over time via sustained economic development and institutional improvement.

3. Any contingent liability that the government bears under a PPP remains in reality in the budget (inter-temporally), regardless of whether it is disclosed or not in the budget numbers. Moreover, as noted, taxpayers and/or users still get the entire bill of a PPP (and not just the part borne by the government), if not via taxes, via user fees; although they may also (and hopefully) get some efficiency benefits.

4. Democratically elected governments are typically pressured during the four to six year term to inaugurate some visible infrastructure projects. Considering that a construction period of a typical highway, port, or airport may take three to five years, the lag time for negotiations is limited, hence the tendency to negotiate poorly and over-guarantee.
framework, therefore, the dice are indeed loaded against final beneficiaries, whose interests are not well represented in the PPP design and selection process.

Hence, to ensure that PPPs actually add value to society, a well-designed policy framework (including well-designed laws, regulations and procedures) is of the essence. Such a framework would adequately represent the interests of the final beneficiaries, by promoting efficiency gains, by greatly reducing the incentives of the government in office to over-guarantee, and by significantly curbing the incentives of private firms’ and investors’ to unduly shift costs and risks to the government. The rest of this note highlights seven deadly sins of poorly designed PPPs, the key things to avoid when designing and implementing PPP policy.

**Sin #1: Provide excessive government guarantees**

As noted, the combined incentives of the government in office and private firms and investors work in favor of excessive government guarantees. Over-guaranteeing provides a quick fix for a cash-strapped government in office and for private players but at the expense of vitiating project selection, distorting resource allocation, saddling future governments with large fiscal obligations, and increasing the chances that costs to the final beneficiaries are higher than they otherwise might be (and the quality of services lower than they otherwise might be).

To avoid over-guaranteeing, it helps to keep in mind that an important subset of PPPs may require minimal or even no government guarantees. There are indeed infrastructure projects that are not constructed by private firms alone not because risks are high, but because of coordination failures. In those cases, governments could award PPP projects simply by playing a catalytic role rather than by offering guarantees. By offering active coordination services and assigning the PPP on a flexible term basis (more on this below, under Sin #3), for instance, the government can shift much of the construction and demand (e.g., traffic volume in the case of a highway) risks to the private sector. There are in fact successful experiences of PPP highway concessions with no government guarantees on demand or construction. These projects require a good concession contract and a relatively sophisticated (deep and diverse) financial services industry.

If government guarantees must be provided, four important considerations can help. First, it is in general preferable to separate subsidies from finance. Hence, it would be better no to embed any subsidy that the PPP structure may contain (where warranted by identifiable un-internalized externalities) into the price of a government-originated guarantee or loan. Instead, governments should strive to price their loans or guarantees as fairly as possible using a price that reflects the best feasible estimate of expected loss.

Second, even where government guarantees are provided within a PPP structure at a fair price, it is in general superior for the government not to guarantee 100% of the risk (i.e., of the variance around the expected loss) or for the government-originated loans not to cover 100% of the finance. Government guarantees that cover 100% of construction or demand risks create incentives for private construction or maintenance firms to shirk or take excessive risks. If a

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government guarantee granted to a private creditor covers 100% of, say, the default risk, the private creditor would have no incentive to screen and monitor the project adequately. By offering only partial yet fairly priced guarantees, the government separates subsidies from finance and ensures that the private players involved in the PPP have skin-in-the-game, which is essential to align the incentives of the agent (the private firms and investors) with those of the principal (the government and, ultimately, the taxpayers).

Third, government guarantees should be transparently booked and disclosed. Guarantees increase the government’s contingent liabilities, transferring risks to future generations. Absent sound accounting and disclosure standards, the contingent liabilities embedded in government guarantees not only undermine inter-temporal budget discipline but taxpayers (citizens) are deceived by the government in office into holding a heavy bag that they did not know existed. A solid accounting and disclosure framework for PPP-related contingent liabilities is, thus, essential.

And fourth, exchange rate guarantees should be limited, to the extent possible. Pressures for governments to provide exchange rate guarantees are likely to be higher where: (i) the local currency is not the preferred store of value and, as a consequence, the dollar is heavily used for financial contracts; (ii) there is not significant market for local currency-denominated long term finance; and (iii) exchange rate regimes are relatively inflexible. By yielding unduly to pressures to provide exchange rate guarantees, governments could reduce the maneuvering space for monetary and exchange rate policy. To be sure, however, the decision would depend on the counterfactual. For instance, in the extreme, if in the absence of a PPP governments would undertake the infrastructure project on their own, the counterfactual would be an explicit rise in dollar-denominated government debt, with similar implications for policy space.

**Sin # 2: Miss opportunities for market tests**

This sin is bound to be committed if sin #1 is also committed. However, even if government guarantees are partial, fairly priced, and adequately booked and disclosed, a sound PPP policy should involve conscious efforts by the government to take advantage of market tests. For example, provided that private players have sufficient skin-in-the-game, governments can and should leverage on the private sector comparative advantages in screening and monitoring projects. By not seizing this type of market test, the scope for projects with low private (let alone social) rates of return grows wider. Missing market tests is more likely to happen where PPP-based projects are financed largely by government-owned (commercial or development) banks.

True market tests arise only if there is sufficient skin-in-the-game of well-informed, sophisticated private investors. For instance, the infrastructure bond market is suitable for qualified investors, and the provision of insurance against, say, construction risks, is suitable only to well-run insurance firms. This implies that involving at the margin only small, unsophisticated investors does not offer a true market test and may instead widen the scope for abuse of small, unsophisticated investors by sophisticated brokerage institutions. It also implies, unfortunately, that true market tests are in relatively short supply in underdeveloped financial systems.
Sin #3: Award concessions based on the wrong bidding parameters

Auctioning a concession helps dissipate rents and allows the ultimate beneficiaries (the users of the PPP-based infrastructure) to appropriate much of the consumer surplus, as long as there is no undue renegotiation of the concession terms after it is awarded. Hence, bidding criteria should be set pragmatically and with an eye at reducing the time inconsistency problem, whereby bidders have incentives to bid low, win the concession contract, and subsequently re-negotiate and extract additional benefits.

Such a time inconsistency problem is exacerbated when the concession is awarded by an insufficiently informed government agency to a bidder that offers the lowest user fees (the lower tolls in the case of a highway) or the shortest length of the concession period. Once the concession is awarded, the government is so to speak “on the hook” and winning bidders can take advantage of the situation to renegotiate and ask for additional government guarantees or other concessions. This problem is not mitigated by complicating the bidding criteria, for example, by awarding concessions based on a weighted average of several parameters, including user fees, length of the concession, amount of guarantees, and payments to the government (if any). Such an approach may not only not reduce the time inconsistency problem but may add unnecessary complications.

Renegotiation of contracts can transfer back risks to the government in a significant magnitude but in a less transparent manner. Analyzing a large set of infrastructure concessions in Latin America in the 1990s, Guasch (2004) finds that more than 50 percent of the PPP contracts are renegotiated, with renegotiation typically initiated by the concessionary company.

There are at least two complementary ways of mitigating the time inconsistency problem that leads to post-auction repeated contract renegotiation. One is for the government agency to have more complete information about the technical and financial feasibility of the project so as to be better prepared at the time of the auction and, thus, more readily identify unrealistic bids. But even then, significant uncertainties and risks will remain. Since the bidder may not be able to predict well the future demand, in the presence of a fixed-term contract he/she may have incentives to renegotiate the contract as soon as it gets the concession award. Renegotiations are typically settled with extensions of the concession period.

Hence, a second, complementary way to reduce the scope for ex-post renegotiation is to use flexible-term PPP contracts. Under this modality, bidders compete by disclosing their target present value of user fee-based revenues (PVR), the government sets the maximum user fee and the discount rate to be used in calculating the PVR, and the duration (i.e., the number of years) of the concession contract is left open. The winner (i.e., the bidder that offered the lowest PVR) then operates the concession for as long as needed to collect such PVR, and once that is achieved, the concession contract expires. In addition to drastically reducing the scope for ex-post renegotiation, this auction modality can mitigate significantly the need for governments to provide guarantees to cover demand risks. This risk is transferred to the concession company, which manages and absorbs it over time, under a flexible-term contract. In the presence of less developed capital markets, this type of PPP contracts may still require government to provide some form of targeted guarantees, such as backstop facilities to give comfort to financiers.

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6 This time inconsistency problem is often referred to as the “winners curse”—having offered to charge unrealistically low user fees, once in possession of the concession contract, winners will try to recover some of their expected losses via repeated renegotiation.


**Sin #4: Have multiple PPP agencies within the government**

A problem common to many countries is that almost any ministry with a government can initiate and award PPPs. This is inefficient and wasteful. Indeed, there are strong arguments in favor of centralizing PPP capacity in a single governmental agency.

On the one hand, the PPP contractual technology requires a high degree of expertise and sophistication on the side of the regulator. On the other hand, such technology, once mastered, can be applied to all sorts of PPP projects, from highways to hospitals, from airports to jails. Hence, a specialized, professional, and credible government agency that can deal with these contracts in a centralized manner is a superior alternative to dispersed PPP initiators with weak capacity. Since learning on the job is necessary, the agency would need to attract top talent and provide an interesting career path to high performers. In addition, having sufficient in-house expertise would enable the specialized PPP agency to leverage and adequately supervise external expertise, from local and international sources.

The PPP agency should advise on the type of projects that are more suitable for PPPs. It should also be able to identify the sectors where PPPs provide the highest value for money compared to other options (i.e. privatizations or government procurement contracts). A high-quality PPP agency, furthermore, would significantly mitigate the asymmetry of information between concession companies and the government.

**Sin #5: Fail to adequately address conflicts of interest and disputes**

Given conflicts of interest, it makes sense to separate the awarding function from supervising function in PPP policy frameworks. The agency that grants the concessions should not be the same as the agency that supervises the implementation of contracts. Experience suggests that the incentives for contract renegotiation have been greater in cases where the same agency performs both functions. Contract renegotiations are, in some cases, a consequence of omissions or mistakes made by the agency that granted the concessions. When that agency is also in charge of supervision, it would tend to avoid escalating the conflict with the concessionary company and be thus more inclined to yield to renegotiation pressures.

The supervisory agency needs to have the authority to supervise and to impose significant pecuniary sanctions on the concessionary company in cases of breach of contract. This is an additional reason to allow as bidders only concessionary companies with a sound capital base that they will defend by avoiding, to the extent possible, breaches of contractual agreements.

It is also essential that PPP frameworks put in place an efficient mechanism for dispute resolution. Disputes between the concessionary company and the government may arise due to different views on the nature and extent or risk sharing. They may also arise when unforeseen changes in technology lead to an early termination of the contract that calls for fair compensation to the concessionary company. In addition, contracts may not have provisions to resolve all types of differences. A credible and efficient conflict resolution is thus needed.
Note that avoiding Sins #4 and #5 goes a long way into fending off Sins #1 and #2. In effect, seizing the opportunities for market tests, on the one hand, and ensuring proper due diligence, checks and balances, and accountability in the process of screening, awarding and monitoring risk sharing structures, on the other hand, is not realistic in the absence of an appropriate organizational structure, composed of highly professional but separate governmental agencies for awarding and supervising PPPs, alongside a sound dispute resolution mechanism.

**Sin #6: Assume that defined-contribution pension funds provide a silver bullet**

While commercial banks have been one of the largest supporters of project finance in the past, the introduction of new capital rules (Basel III) will make it more expensive for banks to participate in the market of long-term financing. Therefore capital markets, particularly via institutional investors, are likely to play a more relevant role in the financing of infrastructure in the future. Privately-administered defined-contribution pension funds (i.e., 401[k]-type individual savings accounts for retirement) have become an important type of institutional investor in many Latin American countries. A common error, however, is to assume that these funds offer a silver-bullet solution to PPP-based infrastructure long-term finance.

To be sure, defined-contribution pension funds can be part of the solution (and there is room to improve their role as long-term investors), but they are far from being the whole solution. The main limitation of these funds arises from the simple fact that they are pure asset managers (they do not have a formal liability and, hence, are not asset-liability managers). Although they manage savings for old age, they tend to behave like any mutual fund with shorter-term horizons (with an eye to the next quarterly or monthly report). All the risks are fully borne by the workers that put their savings into these pension funds, and not by the fund managers. Managers try not to deviate from the performance of their peers, which fosters a herding behavior. In all, under current regulations, defined-contribution pension funds do not have an inherent and consistent vocation to invest in truly long-term assets. They invest in long assets only if such assets command high secondary market liquidity (which tend to be, for instance, the case of government bonds). Infrastructure-related financial assets, however, are typically illiquid.

A fundamental solution to long-term infrastructure finance denominated in local currency can come only from well-regulated (prudent) institutional investors that have formal long-term liabilities and, hence, are systematically in need of long-term assets to match their liabilities. This is the case, for example, of life insurance companies that sell fixed annuities to retirees. These institutions are dedicated long-term investors because they have a contractual obligation to provide a fixed stream of payments to individuals for many years after retirement. Hence, infrastructure bonds can easily prosper in the context of a national financial system that has this type of dedicated long-term asset-liability managers. In most of the Latin American countries with defined contribution pension funds, annuity providers are incipient and face regulatory challenges that inhibit their development.

Engaging defined contribution pension funds in long-term bonds, including infrastructure bonds, is not impossible, but it would require regulatory changes that induce pension funds to operate with longer investment horizons. For example, regulations can be amended to measure
the performance of a defined-contribution pension fund against long-term benchmarks commensurate with the long-term nature of savings for old age, rather than against short-term indicators (e.g., the average performance of the industry) as is typically mandated in many Latin American countries today.8

Sin #7: Assume that construction and concessionary companies are good substitutes

The traditional business of construction companies is to build infrastructure and make a profit from this activity. The business of concessionary companies in the PPP context is rather different. It involves not only building and maintaining the infrastructure project, but also finding investors willing to finance the construction based on the expected revenues from the operation of the asset during the concession period. Those in the construction business are skilled at building; those in the concessionary company require more long-term finance skills.

In addition, capital structures needed by both types of company are different. PPP projects typically require high leverage, and investors want sound capital structures to provide buffers as well as solid projects with good rates of return. These capital structures are rare in construction companies which, typically, seek to extract the maximum profit during the construction stage and do not care what happens after the construction is completed and they get paid.

Thus, the set of skills, governance and capital structure of concessionary companies should be a key factor for selecting eligible bidders for PPP-based projects.