

# Discussion

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## 1. Anne Krueger

Private-public partnerships (PPPs) are certainly in vogue. Schwartz, Ruiz-Nuñez and Chelsky base their paper on the twin propositions that there is a 'need' for infrastructure, and that public finances will not be adequate to finance that 'need'. On that basis, they then address the question of what types of risk are faced by PPP-financed infrastructure. There is much in the paper that is informative. However, it is not a discussant's role to praise, but rather to raise questions and provide critical comments.

I will start by questioning, or at least qualifying, their two basic propositions. I will then ask what is different about the risks and returns associated with PPP investments and those associated with other forms of investment. A concluding comment then raises questions about the appropriate allocation of risk within a PPP.

### The 'need' for infrastructure and the financing gap

There is no question that there is a 'need' for infrastructure. But there is a 'need' for much else, too. Over-investment in infrastructure, or investment in the wrong kinds of infrastructure, can reduce growth just as under-investment can, when it creates transport or other infrastructure bottlenecks, or failed investments by the private sector, which may be induced by inappropriate government policies. A better starting point for the paper might have been to define infrastructure (which is not done) and then to sketch the criteria – such as cost-benefit analysis or rate of return estimates – that constitute the appropriate basis for choosing infrastructure projects.

In general, investment in infrastructure and in other items should take place so that the risk-adjusted return is equalised across projects. I will return to the 'risk-adjusted' part later. But, except in a few countries, there is little provision for systematic and professional evaluation of any government-sponsored projects, infrastructure or otherwise.

There are several issues. The first is whether one can speak of a 'need' for infrastructure in general without some systematic evaluation of rates of return. There are famed examples of wasted infrastructure investments. In the United States, a recent headline case was financing of a 'bridge to nowhere' in Alaska that was included in the US budget bill. There was reported to be literally nothing on the far side of the bridge from a very small remote Alaskan town. Similarly, there are currently stories of 'ghost' cities in China that have been built – apartment blocks, retail stores, hospitals, schools, etc – for tens or hundreds of thousands of people that are empty. Even if these towns are eventually occupied, there is a zero return on the investment for a considerable period. Surely, more productive investments would have yielded a positive return in the years before there was demand for housing and facilities in the new towns. If nothing else, that return could have been used to build better facilities at a later date.

But there are many other instances of infrastructure investments with low, even if positive, rates of return. Sometimes delays and cost overruns are much greater than would seem to be warranted, so that returns are significantly lowered. Sometimes projects with significantly higher rates of return are bypassed while others with lower returns are undertaken. Obviously, political pressures can play an important part in these ill-advised undertakings. Using available resources as productively as possible is self-evidently desirable. Certainly, if it is agreed that there is a 'need' for infrastructure, a first step should be to insure that those projects that are undertaken offer the promise of reasonably high returns.

Moreover, in most countries, there are low- or negative-return expenditures in the government budget. Subsidies intended to help the poor that cost percentage points of GDP and go disproportionately to the upper end of the income distribution are so common as to require little comment. Fuel and food subsidies are widespread and costly. In many instances, targeting subsidies so that the bulk reached the lower half of the income distribution could free up enough resources in the government budget for financing a large percentage increase in infrastructure investment expenditures. Indeed, it is tempting to argue that in many, if not most, middle-income countries, appropriate benefit-cost (or rate-of-return) evaluation of projects and selection of those projects with the highest ratios, combined with reduced subsidy costs through appropriate targeting, would itself solve, or at least greatly reduce the magnitude of, the infrastructure 'deficit'.

### What is different about PPP investment?

To get closer to the question addressed in the paper, I shall assume that PPPs are to be used to finance at least some infrastructure investment. Even then, a major question is what, if anything, is different about PPP-financed infrastructure investments compared with any other investments? Here, there are several issues that are difficult to disentangle. The authors raise issues such as 'foreign exchange risk'. But this also affects domestic private sector investors (who, for example, may build capacity to produce goods to be sold in the home market that rely on imported inputs) and, of course, private foreign direct investment (FDI).

The paper also suggests that there are regulatory risks for would-be PPP investors. But so too there are regulatory risks to any private investors, both domestic and foreign: environmental regulations may change; price controls may be imposed or intensified; labour market regulations may be tightened; and so on. All of these, and other, policy measures can both affect the prospective rates of return on investments and are 'risks' that confront all potential investors in varying degrees.

If one were to try to pinpoint how PPP returns and risks differ from those encountered in FDI or domestic private investment, the focus should probably be on the impact of government policies. It is certainly true that any investment, private or public, will be subject to future policies and changes in the external environment. But PPPs by their nature involve a very particular interaction between the government (and its policies) and the investors in that project.

Perhaps a characterisation of PPP infrastructure investments that focuses on their long time horizon, the fact that the government can control other entrants into the activity (although even here there are exceptions) and the fact that PPP investors are typically foreign, can enable a reasonable view of the problem. The first thing to note is that PPP investments are usually undertaken by foreigners, who in turn must negotiate with the government in the host country. While most countries

have some sort of procedure for permitting FDI in general, negotiating terms of a PPP contract surely entails more interaction with government officials. This immediately raises the issue of how policymakers can reduce or eliminate the risks of corruption in awarding PPP contracts. This risk is assumed by the government, while the functionaries in the relevant government department may be the beneficiaries. Many observers believe that there is considerably more corruption on average associated with PPPs than with FDI.

Beyond that, the issue is whether PPPs, because the government's partners are foreign, are more exposed to the vagaries of exchange rates, domestic monetary policy, regulatory changes and other policy changes than other forms of investment. While it is surely a matter of degree, and there is wide variation among projects, it is certainly plausible that foreigners can exert less influence on public officials than can domestic investors. And the fact that the time horizons over which investments and returns take place are probably longer on average than in many private investments may make these risks more important. However, it may also reduce the ability of policymakers to reduce perceived risks.

But that leads immediately to the question of how the risks associated with infrastructure investment, the subject of the paper, can be reduced. Note first that there are inevitably some risks associated with future actions, and it is certainly not appropriate policy simply to minimise risk. That could be done by failing to invest at all! The question, rather, is whether there are public policy actions that can reduce the risk and thus increase the attractiveness of given PPP ventures beyond those actions that can be taken to facilitate private investment – domestic and foreign – in general.

The problem, when it is posed in that form, is evident: it is the government that makes the policy and the government that needs to make the commitments that will reduce the risks of regulatory or other measures that would reduce returns. Worse yet, it is not necessarily the same government: the government today may well be firmly convinced that it must honour its PPP commitments; but the government may change and the government of tomorrow may not share that conviction. A pertinent example is the contracts signed by the Argentine government in the 1990s for several public utilities. There is little question that the government of the day fully intended to honour its pledges to maintain constant tariffs in US dollar terms. But the successor governments early in the last decade quickly abandoned that practice. Even if policymakers and politicians of today have every intention of honouring their commitments, it is also possible that political pressures may induce changes in policies at a later date.

A reasonable conclusion would seem to be that in countries where the rule of law is respected, contracts are honoured and the 'business climate' is generally good, the risks confronted by all investors, including those in PPP-financed infrastructure, will be lower than in countries where governance practices are weaker. Some issues pinpointed by the paper – macroeconomic stability, for example – are ones that can only be addressed at the country-wide level. Others can perhaps be addressed at the level of individual ministries. There may also be mechanisms by which independent authorities can oversee PPP investments and hence reduce the likelihood of capricious policy impositions, but I would guess that potential PPP partners would consider risk to be lower in countries where the treatment of all investors was deemed 'friendly'.

## The allocation of risk between public and private partners

There will always be risk in any investment project. Where there are partners in the project, as in a PPP, a critical question is how risk is shared between them. One can easily think of situations in which it would be more important to get the allocation of risk appropriate than to reduce the overall project risk.

Here, the prescription is fairly straightforward. Those risks arising primarily from the private partner's behaviour should be borne by that partner, whereas those risks resulting from government actions should be borne by the government. Thus, delays in issuance of construction permits should be penalised by compensation (or alteration of the subsequent timetable, or other means) from the government to the private partner. If actual construction takes longer than agreed upon in the contract, however, the penalty should fall on the private partner (unless, of course, those delays result from other government actions). The Argentine commitment to maintain utility rates in US dollar terms had the government bearing macroeconomic inflation and exchange rate risk over which it had more control. That assignment of risk was appropriate given that the exchange rate and inflation depended on government policy. But it is difficult to think of a way that a PPP contract could guarantee the private partner's immunity from breach of contract, which is what happened in that case.

I would argue that appropriate technical evaluation of the likely rates of return (or benefit-cost ratios) and improvements in the 'business friendly' environment are the two most sorely needed policy measures in most countries seeking productive PPP investments. If a competent technical evaluation bureau and a 'business friendly' environment are in place, there are doubtless actions that can further reduce risk without reducing rates of return. But the starting point should be to address the factors that affect the climate and returns for investment in general, and to provide incentives that induce investors to undertake the most desirable projects regardless of the sector of the project or the nationality of the investor. In most countries there is scope for significant improvement in governance, the commercial code, and much more. In those countries, the returns for overall improvements could be very substantial.

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## 2. General Discussion

Much of the discussion of this paper revolved around the differences between infrastructure investment and other investment – an issue that was highlighted by the discussant. The discussion began with one participant suggesting that the fundamental difference is the state's large role in infrastructure provision, specifically in project selection, pricing and contract design. Jordan Schwartz agreed that this is a defining feature for infrastructure, but also argued, in response to the discussant's comments, that infrastructure investors typically have relatively large currency mismatches, as their equipment supply, energy inputs, and debt and equity exposures are often denominated in foreign currency, while their revenues tend to be in local currency. Mr Schwartz noted that this is not commonly the case for investments in other sectors, such as the tradeable sector.

Jeff Chelsky argued that while many of the risks associated with infrastructure investment identified in the paper are risks that are faced when undertaking any type of investment, these risks still need to be managed and are often more significant for infrastructure than other types of investment. Mr Chelsky also emphasised that many of the risks associated with infrastructure investment are magnified in developing economies, owing to factors such as poor pay for civil servants, difficulty enforcing the collection of tariffs and weak creditor rights. Mr Chelsky went on to re-emphasise that the purpose of the paper was to systematically identify the risks associated with infrastructure investment and consider how they can be reduced or appropriately shared between parties so that institutional investors – who hold large pools of longer-term assets, but are typically risk averse – will consider infrastructure, particularly in developing economies, as a viable investment. Another participant asked about what the multilateral development banks could do to contribute to mitigating risk to help close the ‘infrastructure gap’ above and beyond the potential contribution of governments or other institutions.

Another participant suggested that the biggest difference between infrastructure investment financed by government and that financed by PPPs is the so-called ‘equity premium’ (i.e. the difference between the rate of return required by private investors in a PPP and the borrowing rate of the government). The participant went on to argue that there is a lack of theoretical explanation for why the equity premium is so large. Consequently, it is unclear whether there is a corresponding ‘true’ government risk or whether the premium arises from something specific to private equity. Ultimately, the participant argued, it is unclear what benefits taxpayers and/or users of the infrastructure derive from paying this premium.

Much of the remaining discussion focused on the decision-making process of government in its provision of infrastructure. One participant suggested that the challenge society faces in terms of infrastructure provision is to devise a set of governance arrangements that constrain the state to make decisions that are in society’s collective interest. The participant drew a parallel with monetary policy in some jurisdictions, whereby the state has agreed to grant central banks independence, which, coupled with accountability and transparency, has resulted in a net benefit to society. Another participant responded that, because infrastructure necessarily involves government, the judgements of politicians unavoidably apply to infrastructure provision. This makes it difficult, if not impossible, for politicians to be removed from the process of decision-making. Therefore, the participant argued, it is important to make the decision-making process transparent so that sub-optimal decisions at the political level are obvious and the decision-makers incur some cost. Referring to the example of monetary policy, the participant went on to argue that the institution – independence of the central bank – is the vehicle through which policy has improved over time. Therefore, the improvement is not inherent in the policy itself, and institutional reform is likely to be the mechanism by which problems in infrastructure provision can be solved. Finally, the participant posited that developing economies may have an advantage in establishing robust infrastructure-related policymaking institutions, as, unlike in the advanced economies, they do not have well-established institutions with existing vested interests.

Picking up on the discussant’s comments about the building of a ‘bridge to nowhere’ in Alaska, another participant noted that the Sydney Harbour Bridge was essentially a bridge to nowhere when it was first built. The participant questioned whether there are any lessons to be learned from comparing ‘bridges to nowhere’ that were ultimately productive investments against those that

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were unproductive. In response, another participant argued that whether an initially unproductive investment later becomes productive is not proof that it was a good investment, as an alternative investment with a greater return could have been made in the interim. Mr Schwartz agreed that it is difficult to justify constructing infrastructure when there isn't proven demand for it, particularly under high discount rates, but that the reverse – *not* constructing infrastructure when there *is* proven demand for it – is 'abominable'. Mr Schwartz went on to explain that the World Bank requires potential infrastructure projects to provide an immediate rate of return under fairly high discount rates, whereas some countries are willing to build infrastructure that only proves to be economically viable over time.

Another participant cautioned that care should be taken when calculating infrastructure deficits, as these can lead to policymakers overestimating the expense of implementing beneficial policies. As an example, the participant drew on a case study of Abidjan (the largest city in Côte d'Ivoire), which, by the 1990s, had similar potable water coverage to Buenos Aires despite having a substantially lower per capita income. The participant also argued against the notion that individuals in developing economies are not willing or able to pay for basic infrastructure. As evidence, the participant referred to studies that have shown that individuals who do not have access to electricity spend large amounts of money on candles. This money could instead be used to pay for an electricity grid. The participant also described the diffusion of mobile phones throughout Africa despite their expense, which implies that consumers place a high value on the ability to make phone calls. The participant suggested that the value of having access to potable water or electricity is most probably much higher still, especially for the very poor, as the impact on welfare is relatively large. Additionally, the participant argued that the subsidisation of infrastructure use is often, in fact, regressive, as lower-income households are less likely to be connected to infrastructure networks and thus do not receive the benefits of subsidisation. In response, Mr Schwartz agreed that subsidies for infrastructure use are often regressive, owing to poor regulation and planning.