

SPOTLIGHT 7

Public-private partnerships

In 318 BCE, the ancient Greek city of Eretria signed a contract with a wealthy citizen, Chairephanes, to drain a lake in its territory to create more usable land for agriculture. According to the contract, Chairephanes was responsible for financing and managing the drainage operation. In return, he was granted the right to use the land for 10 years and an exemption from tax duties on materials imported for the project. The contract foresaw a four-year construction schedule, renegotiable in case of war, and it bound heirs in case of the contractor's death. Anyone attempting to rescind the contract was subject to extreme sanctions. The contract was carved in marble and placed on public display (Bresson 2016, 165). Similar contracts may date as far back as the Achaemenid (First Persian) empire (6th to 4th century BCE), when, by royal decree, all individuals who dug a *quanat* (a subterranean gallery used to intercept water sources for irrigation) had the right to retain all profits for up to five generations (Goldsmith 2014, 11).

Contracts such as these are examples of what today are known as public-private partnerships (PPPs). A public entity contracts the construction and maintenance of public infrastructure to private entities, which receive the exclusive rights to profit for a fixed period of time. More specifically, PPPs are defined as “long-term contracts between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance” (World Bank, ADB, and IDB 2014, 14).

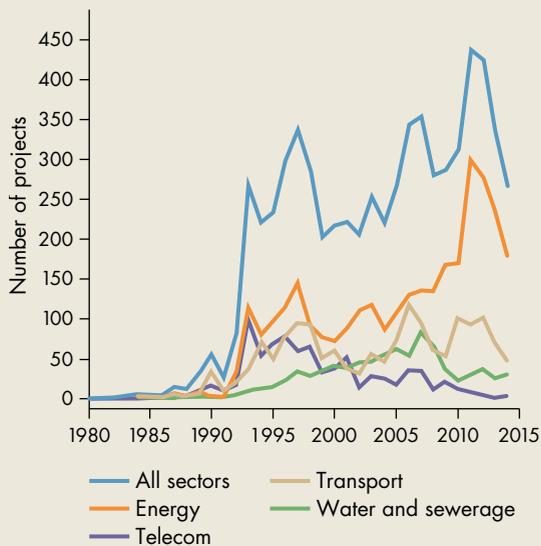
PPPs are considered an alternative to both public provision and private provision. Unlike public provision, where a private firm is responsible only for building the infrastructure, under PPPs the concessionaire builds, manages, maintains, and retains control of the assets for the duration of the contract, which can last more than 30 years. Unlike private provision, in PPPs the private firm has only a temporary and partial ownership of the asset. PPPs have been adopted for the provision of various services, providing mainly infrastructure in network industries such as electricity, telecommunications, water, and transport. PPPs have also been used for delivering other services traditionally connected to public provision such as health and education, garbage collection, agriculture extension services, and social housing.

PPPs were recognized as playing a key role in infrastructure financing at the recent Addis Ababa International Conference on Financing for Development (United Nations 2015, para. 48). Although the participation of the private sector in infrastructure projects has grown considerably in the last 25 years in developing countries, especially in the energy sector (figure S7.1), private financing continues to constitute a limited share of aggregate infrastructure investment. In developing countries, it is less than 25 percent (IMF 2014; World Bank 2014).

The most common argument in favor of PPPs is that they free up resources in budget-constrained governments for other projects.¹ If a country is too poor to collect enough resources domestically, or if the government cannot credibly commit to using revenues for providing public services or to repay investors in the long term, it may be difficult to collect enough funds to finance the initial investment in the form of

WDR 2017 team.

Figure S7.1 Private participation in infrastructure projects in developing countries remains limited



Source: WDR 2017 team, using data from World Bank, Private Participation in Infrastructure Database, 1980–2014.

either taxes or public debt. Another reason PPPs may be appealing is that they can increase efficiency in providing public services because private firms obey the rules of the financial markets. In contrast to state officials, who obey political considerations, private firms introduce competition in markets characterized by the features of natural monopolies, and they prevent investment in projects with negative social values because the profitability of the investment depends on the demand for the service.

A key challenge for PPPs in providing public services efficiently is that they must take into account the incentives of both public and private entities because PPPs allocate risks between the contracting parties over a long period of time, when circumstances often change. Actors will likely fail to reach an agreement or the PPP may be ineffective if there is no mechanism to allocate the risk in a credible way. Auction bids are based on long-term forecasts of the expected demand for a service. In reality, however, the demand may vary from the forecast. For example, forecasts may fail to accurately take into account the impact of service fees on user demand, or the service may become obsolete as technology advances. Similarly, because the government agenda may change with the political cycle and pressures for reelection,

private firms may worry that the profitability of their investment could be undermined.

For this reason, many PPPs have not resulted in the expected efficiency gains. For example, without a credible commitment to enforce the terms of the agreement, contracts are frequently renegotiated in favor of the private contractor, with considerable government spending often allocated in questionable, noncompetitive ways. Renegotiation often occurs as a consequence of an aggressive bidding strategy at the time of auction. After having been awarded the contract, the concessionaires can lobby the government to renegotiate the terms, voiding the potential efficiency gains of the auction. For example, 68 percent of the 1,700 PPP projects financed in Latin America from 1990 to 2013 (78 percent in the transport sector) were renegotiated on average one year after the contract award, according to Guasch and others (2014).

Taking into account actors' incentives and making sure that the contract's terms are consistent over time may reduce the likelihood of opportunistic behavior, such as renegotiation. However, depending on the circumstances, the form in which this commitment is credibly reached may vary. In the ancient Greek city of Eretria, it would have been very difficult to renegotiate the terms of a contract carved in marble. Publicizing the contract in a public square also helped bind the contracting parties by increasing scrutiny. Although this specific commitment device clearly may not be the best solution for PPPs today, the underlying principles remain valid.

The optimal contract may depend on whether it is possible to collect user fees, whether there is high demand, and whether the quality of the service is easily contractable. For example, the commitment device needed to effectively deliver on highway infrastructure may be very different from that needed for health services. Consider the financing of a new highway: demand is high, user fees can be collected, and quality is easily contractable. However, the returns on investment depend on future demand, which cannot be controlled by the concessionaire. If the contract is fixed-term, the risk is borne by the private contractor, who will internalize the volatility linked to traffic forecasts and ask for a higher subsidy *ex ante*, or renegotiate the terms of the contract once the bid is won. The higher state subsidy will in turn blunt the role of PPPs in ruling out bad investments, and renegotiation will undermine the competitive benefits of the auction. In such a context, it would be better for the planner to bear the demand risk.²

Notes

1. Economic theory also predicts that the present value of all the user fees that the government could have been collecting under public provision of the service equals the initial saving under PPPs. For a formal discussion, see Engel, Fischer, and Galetovic (2014).
2. For example, the tender could specify a discount rate and a user fee schedule, and the bids could be made on the present value of revenue. The contract term would then last until the winning contractor collects all the fees demanded in the bid, thereby deterring any form of renegotiation and chances for the government to subsidize the private firm with transfers (see Engel, Fischer, and Galetovic 2014).

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