VIEWPOINT

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Assessing the Suitability of Public-Private Partnerships for Infrastructure Projects

Public-private partnerships also have their risks and downsides, argues Mr Terence Ho, Associate Professor in Practice at the Lee Kuan Yew School of Public Policy, National University of Singapore.

Scale and Scope of Responsibility and Risk for Different PPP Contract Types

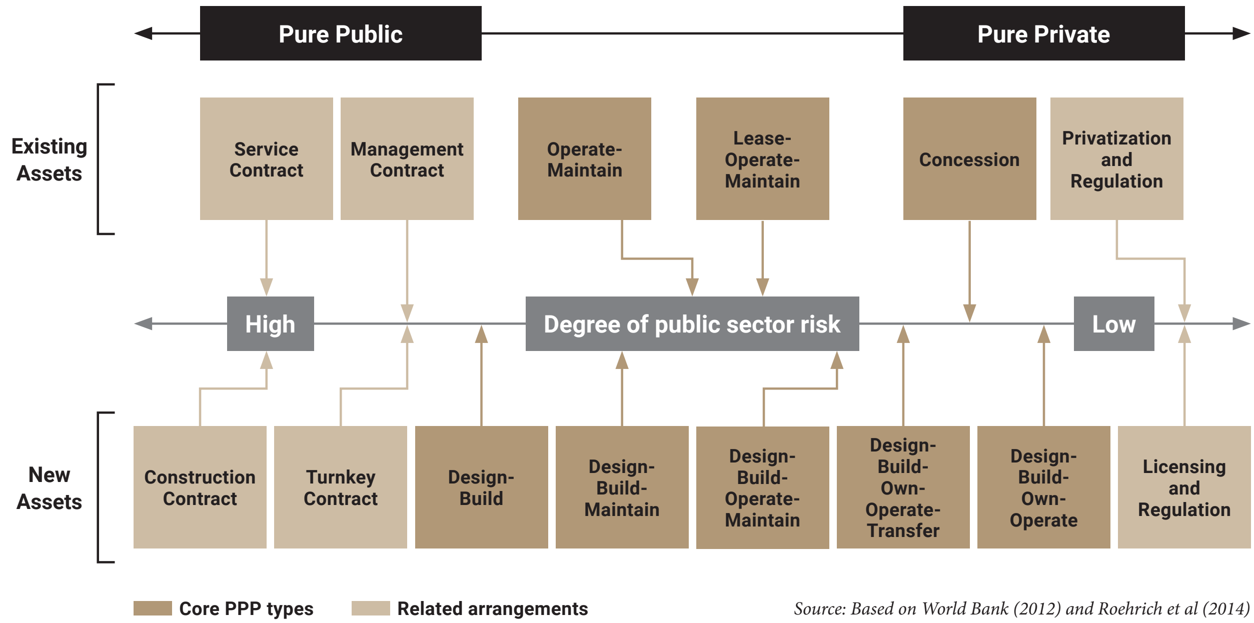

Figure 1. Varieties of PPPs.
Image: Jomo KS, Anis Chowdhury, Krishnan Sharma, Daniel Platz, "Public-Private Partnerships and the 2030 Agenda for Sustainable Development: Fit for purpose?", United Nations Department of Economic and Social Affairs (DESA) working paper no. 148, February 2016

The Value of Public-Private Partnerships (PPP)

Since the 1990s, PPPs have been widely adopted in both developed and developing countries for infrastructure development. Such arrangements include Design-Build-Finance-Operate or Build-Own-Operate whereby the Government engages a private sector entity or consortium to finance, develop and operate infrastructure in return for a commitment to purchase the public services generated from the infrastructure over a period of time (Figure 1). PPPs have been used for a wide range of infrastructure including roads, bridges, schools, hospitals and prisons.

The value proposition of PPPs is evident:

1. They are able to mobilise private finance and avoid large upfront fiscal outlays at a time when the public purse is stretched and borrowing costs are rising;
2. They can optimise risk sharing between governments and the private sector in terms of development, financing, operational or demand risks; and
3. They also encourage a life-cycle approach towards public asset management by factoring in operating and maintenance considerations into the upfront design of facilities.

Inherent Risks of PPP

However, PPPs do not obviate the need for government spending—they merely spread it out over the life cycle of the asset. PPPs also have their risks and downsides, which governments would do well to keep in mind.

The greatest risk inherent in PPPs is the long-term contractual relationship between the public agency and the private consortium, which is typically 20 years or more. During this time, there may be changes in technology, user patterns and even stakeholder priorities. Hence, it is important to build into the PPP contract sufficient flexibility for variation.

Even without major shifts in the operating environment, the day-to-day running of the facility requires mutual accommodation in a spirit of give-and-take, as not everything can be spelled out in a contract. A successful partnership requires open channels of communication and strong trust among partners, as well as a mechanism to resolve disputes that may arise. It is also important that the financial incentives for the private sector partner are aligned with the aims of the public agency for the infrastructure that is developed.

Benefits and Risks of PPPs

Benefits	Risks
Mobilise private finance, avoid upfront fiscal costs	Long-term contract may not anticipate changes in technology, user patterns and stakeholder priorities
Optimise risk sharing between the government and private sector	Contract may not be able to spell out all contingencies, and can introduce friction and inefficiency in daily operations
Encourage a life-cycle approach towards public asset management by integrating operations and maintenance considerations in upfront design	Partnership may not work out if financial incentives for private partner are not well aligned with public sector objectives
Leverage private sector innovation and expertise at various stages of the project	

Figure 2. It is important to weigh the benefits and risks of PPPs as it may not be suitable for every project type.
Image: Terence Ho

Despite best efforts, PPPs may not always work out. Take the Singapore Sports Hub, for example. The $1.33 billion facility was planned in 2003 as the largest integrated sports infrastructure PPP project in the world, with the aim of tapping on private sector expertise and networks to bring major sporting and entertainment events to Singapore. After a delay arising from the Global Financial Crisis (GFC) in 2008–09, the project finally achieved financial close in 2010.

Singapore Sports Hub opened its doors to the public in 2014, but issues soon emerged. In 2016, Sports Hub Pte Ltd (SHPL) put a price tag of $26 million for an extra 35 days of rehearsal for Singapore's National Day Parade. Although the fee was later reduced to $10 million, the cost of staging the Parade at the Sports Hub was still considerably higher than at previous venues, and the Parade has not returned to the Hub since. In March 2020, SHPL was also fined for failing to meet the stipulated minimum number of sporting event days at the Sports Hub.

Eventually, divergence between the commercial objectives of SHPL and the Government's aim of promoting community sports resulted in a parting of ways. In 2022, the Government exercised its option to terminate the Sports Hub PPP, taking full control of the facility's operations and management. This was some 13 years ahead of the PPP contract end-date of 2035.

Minister for Community Culture and Youth, Edwin Tong, explained in Parliament that the PPP had fallen short of "promoting sufficient community vibrancy in and around the Sports Hub". He noted that the profit-driven model was "not sufficiently aligned" with the government's emphasis on community programming, such as the hosting of school sports events, grassroots programmes and other activities with social rather than commercial returns.

The Sports Hub example points to the difficulty of getting a PPP to work when its revenue model is not well aligned with public objectives, in this case—the promotion of community sports.

This is not to say the Sports Hub PPP was without benefits. Private sector financing freed up fiscal resources and reduced the Government's financial risk during the GFC, while private sector expertise enabled the facility to hit the ground running at a time when Singapore's sports and entertainment ecosystem was less well-developed.

However, it was decided that ownership and direct management of the Sports Hub in the current phase of operation would give SportSG greater control and flexibility to drive policy outcomes, and enable deeper integration of the Sports Hub with new developments in the surrounding Kallang precinct.

Singapore Sports Hub.
Image: Jason Goh

Besides the Sports Hub, the PPP model was also used in the development of Institute of Technical Education (ITE) College West, a Singapore technical education college which opened in 2010. However, when the time came to develop its next campus—ITE College Central, ITE subsequently reverted to traditional procurement, which suggests that it did not find PPP to be the best option for the development of such facilities.

When Is PPP Suitable?

In Singapore, the PPP model has enjoyed greater success in utilities infrastructure such as desalination, water reclamation and incineration plants. A recent example is the Jurong Island desalination plant, a partnership between the Singapore Public Utilities Board and a private consortium formed by two companies, ST Engineering and Tuas Power. ST Engineering's expertise and design innovation paved the way for greater energy efficiency, while co-location with Tuas Power's power plant brought about infrastructural synergies.

Such utility projects are perhaps better suited to PPP as the output is standardised and can be easily monitored, while the underlying technology is stable. By contrast, PPPs can be problematic in social infrastructure where commercial and social objectives diverge, and ever-changing user needs pose a problem even with contractual flexibility.

PPPs will continue to be an important option for governments across the world in infrastructure development, particularly given the urgent need for infrastructure renewal and climate adaptation in many countries. Singapore would do well to keep the PPP option warm by building up PPP-related expertise, and drawing lessons from existing projects as well as the experience of other countries.

However, it is important to note that PPPs are not the only option for mobilising private sector finance or expertise. Hybrid PPPs, where financing may be wholly or partly sourced from public funds or official development assistance, are also gaining traction as alternatives to traditional PPPs. Public agencies will need to factor in the characteristics of each project—including risk, flexibility and objective alignment—to decide whether a PPP is appropriate, what form it should take, and how the contract should be drafted to maximise chances for success.