Utilization of PPP / PFI in the Area of Transportation: Model Cases in Australia and Examination for Their Applications Based on Legislative Theory

Hirofumi TANIGUCHI
Research and Planning Director, Fukuoka Asian Urban Research Center

Summary: Public-Private Partnerships (PPP) are used in many countries as a way to develop infrastructure, and have evolved after trial and error in Europe and Oceania have taught organizers how to improve their approach. In Japan, the method was systematized and referred to as a Private Finance Initiative (PFI) nearly 15 years ago. Unfortunately, though, this utilization of private capital and know-how has so far fallen short of expectations.

This report looks at how advanced PPP models are implemented in Australia, focusing on the area of transportation, and tries to determine the best practices for Japanese PPP projects as a way to reform the public sector. In Japan, however, there are institutional constraints to achieving similar results by using contract-based projects, as the current legislative system clearly differentiates public and private sectors. To utilize innovative solutions originating from PPPs in actual use, we need to go back to the basics, reexamine existing legal restrictions, and study measures that will enable the flexible use of PPPs.

Keywords: PPP/PFI, public-private collaboration, concession, public nature, public laws and private laws, Australia

1. Introduction

1.1 Purpose of This Paper

Responding to the trend of New Public Management (NPM) in the U.K., efforts toward improving the efficiency of the public sector by utilizing private sector methods have been promoted in Japan since the 1980's. They have included the privatization of the National Railways and the postal services, the introduction of the Designated Administrator System and commercialization tests. The Act on Promotion of Private Finance Initiatives (hereinafter referred to as the PFI Act) was established on the basis of a bill drawn up by Diet members in 1999. Subsequently, the government reviewed and amended the Act in 2011 to introduce concessionary agreements. This reform is expected to lead to large steps forward in adopting the business management skills and capital of the private sector. However, without proper operation of the system, the original purposes may not be accomplished.

This report first clarifies the status of PPP projects in Australia, focusing on transportation case studies. Next, this report summarizes the concept of "public nature," which is the backbone of the Japanese public law system. Lastly, we look at how to remove institutional barriers to aid in the successful implementation of PPPs.

1.2 Definitions

The concept of Public-Private Partnership (PPP) is widely known around the world, but is not always defined in the same way. In Japan, PPP encompasses a broad range of public-private collaboration, including PFI, comprehensive consignments to the private sector and the Designated

Administrator System. Further, since it is normal for the public sector to be involved in private sector operations by granting business licenses, imposing safety regulations, offering subsidies, providing tax breaks, etc., the term 'public-private collaboration' is very equivocal[1)].

This paper does not seek to categorize PPP concepts or projects. In order to avoid confusion when making international comparisons, it uses the internationally accepted definition of PPP as a method of improving the efficiency of the public sector when developing public facilities and offering related public services. This PPP is based on a contract between the government and a private company, and utilizes the skills and capital of the private sector while also transferring the risks to the private sector. This basic understanding of the PPP concept is accepted by the National Council for Public-Private Partnerships[2)], United Nations Economic Commission for Europe[3)], Canadian Council for PPP[4)], and Infrastructure Australia[5)]. Their PPPs are equivalent to PFI arrangements in Japan. They are distinguished from short-term service contracts (which should be included in the definition of broad public-private collaboration), the designated administrator system (which is in the category of administrative measures), and third-sector methods.

PPPs are understood to have some specific features and patterns. However, there are private sector methods that do not have any predetermined features or pattern, but which are effective for use in reforming the public sector. To concentrate on the practical benefits of this discussion, arrangements that fall outside the Japanese PFI Act and other countries' PPP definitions should be examined as well.

Although PFIs started in the U.K. in 1992 and have been adopted worldwide[6)], this report regards a PFI as a system based on the Japanese PFI Act. There is no doubt that privatization is a case in point of public sector reform utilizing private methods, but the following PPP scheme is intended for projects that will not remove assets from the public-account balance sheet.

The public sector in this report basically refers to the national and local governments. In fact, there are many organizations that fall between the public and private sectors, both institutionally and in terms of governance. These include special public corporations, third sector (semi-public sector) companies, local public corporations, and public corporations. Beyond this, each country has a different system. The area that falls between the public and private sectors is a research area for broad public-private collaborations, but it is not touched upon in this paper.

The private sector also includes entirely government-sponsored corporations which are given a specific purpose based on law. However, unless otherwise stated, this paper assumes that private companies are normal profit-making enterprises whose corporate governance is not affected by any government office.

2. General Features of PPP Scheme

2.1 Public Facility Development and Public Service Provision

The projects covered by a PPP must be related to public facilities (hardware) and public services (software) to maintain, manage and operate the facilities. Hardware includes economic infrastructure such as roads, railways, rail tracks, airports, ports, water, sewage, and energy, as well as social infrastructure, such as hospitals, schools, prisons, government offices, educational facilities and convention centers. The facilities and services covered by the Japanese PFI Act are the same, aside from their operational particulars.

Asian countries used to develop infrastructure by using official development assistance (ODA). Now they utilize PPPs, especially for economic infrastructure such as roads, railways and energy.

A PPP is a way to improve the efficiency of the public sector, and is not intended for any specific field. When there is demand in the public sector for greater efficiency, and there is a company in the private sector that sees that as a business opportunity, this is the ideal situation for a PPP (if the public

and private parties can find agreement). The kinds of projects actually implemented differ by country. In the U.K. and Australia, for example, airports that are already privatized cannot be a PPP project. The Tokyo metropolitan railway systems in Japan, which are constructed and operated mainly by private companies, cannot be a PPP project either.

In Australia, public services are divided into core services and non-core services. Core services, which include medical services provided by state hospitals and public school education, remain public. The facilities of non-core services, though, can be managed and run by the private sector.

2.2 Long-Term Comprehensive Contracts

In a PPP, the public sector does not place individual orders with companies for design, building, rehabilitating, maintenance, financing and operations. Instead, it concludes a contract with a Special-Purpose Company (SPC) that covers everything from design and construction of the facility to operation and maintenance. The term of a contract can extend beyond 30 years. The average term of past projects in Japan has been about 15 years[7].

Project patterns are named according to the kind of work the contract includes (design, building, finance, rehabilitation, operation or maintenance) and what type of asset holding the contract requires (ownership, transfer, or lease). Design-Build-Finance-Operate can be called DBFO, while Build-Operate-Transfer is BOT, for example. There is no general agreement as to how much of the above areas a PPP project should cover. Although a report by the U.S. Federal Highway Administration[8] regards PPP broadly, and includes Private Contract Fee Services among PPPs, a project with no introduction of private capital is not usually regarded as a PPP project. Design-Bid-Build (DBB), where bidding for the design and construction is separate, has been a common approach, but it is not regarded as PPP because there is no transfer of risk or responsibility to a private company[9].

It is important that each PPP project be tailored to fully utilize the innovation of private business. There is no one arrangement that fits all.

2.3. Value for Money (VFM) and Transfer of Risk

Value for Money (VFM) is determined by comparing the Public Sector Comparator (PSC) and the PPP, assuming long term facility management and maintenance life cycle cost. In other words, VFM is used to compare the cost that would be incurred when conventional means are used by the public sector with the cost incurred when PPP is utilized and the project is handled by the private sector. Since a major purpose of using the PPP is to reduce the financial burden, it will not be used unless the VFM is advantageous. The details of how to calculate VFM are shown in the guidelines for each country.

Another important consideration in PPP is the opportunity to take as much advantage of private sector innovation as possible. To this end, the contractor should be given considerable discretion in deciding specifications, while the risk of not being able to attain the requirements should be borne by private sector as well. When there is more room for innovation in the private sector, despite the transfer of risk, contractors can expect rewards, which will increase their motivation to take on a project.

The allocation of risk is specified in each contract. Australian guidelines contain details of risk allocation examples by category (shown in a separate risk allocation table). Japanese guidelines often note that it is preferable to avoid ambiguity, and clearly specify the risk allocation in each agreement. The guidelines, though, show few concrete examples of this.

2.4. Financing

Initial funds for a PPP project are raised by the private contractor through equity or debt financing. The contractor collects usage fees from users and receives service charges from the public sector afterwards. In addition, the main company to form a SPC, and banks, invest together in the project, and the SPC is granted a loan from project finances.

UNECE classifies PPPs into concession types and private finance initiative (PFI) types. The concession type is equivalent to a self-supporting accounting system in Japan, and the contractor collects usage fees and fares from users for services including electricity, water, communications, transportation, etc. The PFI type is equivalent to the purchase of services or a combination of types. The contractor mainly receives service charges from the public sector. In concession, the contractor receives water charges and usage fees, etc., though it is difficult to decide how much risk should be transferred to the private company.

3. PPP Utilization Status in Australia

3.1 Overview

Australia's total public gross fixed capital formation increased significantly, from approx. AU$27 billion in 1990 to AU$82 billion in 2010[10]. PPPs have contributed to this rise, starting with the first PPP project of Sydney Harbour Tunnel in 1987[11]. There was a total of 122 completed PPP projects as of 2012, with a cost of AU$58.3 billion. In particular, since the 2000's, PPP has been adopted for many large public work projects, and has made great progress over the past 25 years.

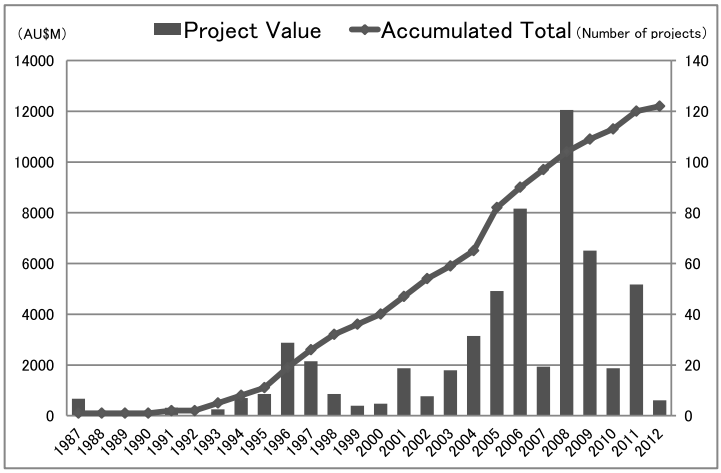

Figure 1 Transition of PPP Projects in Australia
(Source: Author, based on Infrastructure Australia Website)

Between 1987 and 2012, the most common purpose of PPP projects was to build social infrastructure centering on buildings, while the bulk of expenditures were used for economic infrastructure, specifically transportation such as roads and railways[12].

Table 1　Australian PPP Project Status by Sector

(1987-2012)

Sector	Projects		Project Value	
	Number of projects	%	AU$100M	%
Economic Infrastructure	47	38.5	397.8	68.2
Transport	21	17.2	318.3	54.6
Roads	15	12.3	253.0	43.4
Railways	6	4.9	65.4	11.2
Water	20	16.4	72.8	12.5
Communications	3	2.5	3.3	0.6
Waste disposal	2	1.6	2.6	0.4
Gas infrastructure	1	0.8	0.8	0.1
Social Infrastructure	75	61.5	185.5	31.8
Hospital, Health facilities	23	18.9	75.3	12.9
Court, Prison, Police station	18	14.8	27.3	4.7
Stadium, Exhibition, Convention	10	8.2	34.2	5.9
School, Education facilities	8	6.6	14.2	2.4
Accommodation facilities	7	5.7	14.4	2.5
Search & Rescue, Disaster prevention	4	3.3	10.6	1.8
Government offices, Laboratories	4	3.3	8.0	1.4
Other	1	0.8	1.5	0.3
Total	122	100.0	583.3	100.0

(Source: Author, based on Infrastructure Australia website)

Table 2　Major Transportation PPP Projects in Australia

Year	Project	Procuring Government (State)	Value (AU$100M)
1987	Sydney Harbour Tunnel	NSW	6.7（Capital Cost）
1995	New Southern Railway Stations Agreement	NSW	6.73（Design and construction cost）
2001	Adelaide to Darwin Railway	FED	13
2004	Eastlink（Road）	VIC	26
2006	RailCorp New Electric Suburban Rail Carriages	NSW	36（NPV）
2008	BrisConnections (BrisLink)（Road）	QLD	53.4
2008	Airport Link and Northern Busway（Road）	QLD	51.6
Future Plan	North West Rail Link	NSW	
	Sydney Light Rail	NSW	
	Brisbane Cross River Rail	QLD	
	East West Link Motorway	VIC	
	WestConnex Motorway project	NSW	

(Source: Author, based on the Infrastructure Australia website)

Among transport infrastructure of roads, railways, airports, ports, subways, and light-rail transit (LRT), most PPPs in Australia have been for roads, railways and municipal public transportation facilities. The scope of operations includes the improvement of roads, and the construction of tunnels, bridges, subway stations and interchanges, as well as the improvement and operation of vehicles, and the development of a ticket selling system.

Airports, which used to be under the control of the Federal Airports Corporation, were privatized in accordance with the 1996 Airport Act. Since the corporation already sold the right to lease those airports to the private sector, they are not regarded as PPP.

3.2 Feedback from People Concerned

Although PPP is a globally accepted concept, the basis of PPP, operation status and utilization vary between countries. In addition, the scope of PPP is not the same in any strict sense. However, as flexibility is also one advantage of PPP, it is vital to adopt the business management skills and lessons of the private sector accumulated through various institutional approaches and individual business experiences.

What follows are summaries of feedback from federal government officials in charge of PPPs, New South Wales Government officials, and other people involved in PPPs, from bank executives to consultants[13]. These should serve as useful references for PPP operations in Japan.

(1) Governmental PPP Promotion Organizations

In Australia, the Department of Infrastructure and Regional Development and the departments that bear responsibility for infrastructure in each state government act together to coordinate functions and provide one-stop services for PPP.

At the federal level, Infrastructure Australia (IA) was established in 2008 to plan and mediate infrastructure development. IA submits an infrastructure development planning report to the Council of Australian Governments (COAG) each year, and prioritizes development projects and standard terms and conditions. When IA was established, the people in charge of PPP from the Departments of Treasury and Infrastructure of each state got together to adjust policies. Guidelines and documentation that had differed from state to state were unified to make a single PPP system, making it easier to attract foreign investment.

IA's chairperson is selected from the private sector. Half of the 12 members are business people from the fields of transportation, energy, communications, water resources, banking, law and accounting; and half are federal, state, and municipal government employees. Though IA is a government organization, it is regarded as an independent entity. Since IA has considerable authority, projects that are assigned a high priority by IA can receive financial commitments from the federal government, while projects that are seen as problematic during an IA audit or evaluation may come to an end. This authority is given to IA partly to mitigate the changing political winds that arise every three or four years, and it allows the steady implementation of long-term infrastructure plans.

In addition, the Department of Treasury in each state plays a key role in promoting the development of infrastructure by PPP. To reduce government spending, the Department of Treasury instructs the sections of other departments in charge of facilities to discuss the introduction of a PPP when project costs exceed a certain level. The Department of Treasury also proposes multi-purpose facilities when a planned project is unlikely to attain value for money.

(2) Adoption of a PPP Project

The need for an infrastructure development project is decided by politics or the administration.

However, details such as routes and construction plans are determined by the state government's group of experts, with no politicians involved. Deciding whether to introduce PPP means deciding whether an approved project will be carried out by the government or by public-private collaboration. Government guidelines state that the use of PPP for a project should be studied when the project's total capital amount exceeds AU$50 million. According to the Infrastructure Financing Unit, the Department of Treasury, NSW, about 75% of all planned projects use the PPP system.

However, the ratio of PPPs among all public purchases remains at the level of 10 to 15%. PPPs naturally have limitations, as some projects cannot expect to see value for money, and others are not profitable enough to attract the private sector.

(3) Market Sounding and Public-Private Partnership

For a successful PPP project, it is essential to involve the private sector in the project from the beginning. It is also essential to hear opinions from private sector experts and internal and external market participants regarding risk transfer, scope of operation, financing, and concept of the project, so that public and private sectors will enjoy a win-win relationship. This is called market sounding. It enables the sharing of information with market participants early on, and encourages them to participate in Expression of Interest (EOI). It has become a sophisticated and vital process that leads a project to success. Although multiple bidders should participate in the bidding procedures (the guidelines stipulate that three or more groups are preferable) to secure competitive strength, once official procedures start, since documentation and consulting contracts cost a lot of money and bidding is not necessarily successful, private companies can decide whether to apply for a PPP project during an early stage of market sounding.

When private companies make this decision, they attach importance to future projects as well as current ones. The federal and state governments, or the ordering party, collect the latest progress data for ongoing projects and for the prospects of future projects, and disclose individual project information on a website (Pipeline).

PPP experts also need to be sufficiently available to build long-term trust with partners. In this sense, experts from public and private sectors have opportunities to make exchanges in Australia.

(4) Risk of Low Transportation Demand

In Australia, private sectors used to take on the risk of short demand in many PPP cases relating to transportation. However, the demand for the North South Bypass Tunnel and the airport line in Brisbane fell short of expectations. The private sector, and especially banks, have become less willing to take these sorts of risks since the world-wide financial crisis of 2008. When the public sector pays a fixed amount of service charges according to contract (availability-based PPP), and not according to usage (demand-based PPP), the risk of low transportation demand is on the government side. In recent projects, risks related to road and railway demand have been taken on by the government.

In these cases, there is also some concern that the private operator may lose the motivation to enhance service levels. To overcome this, contracts often include clauses requiring a specified level of services, with penalties for falling short. For example, when service quality, operation and reliability are not satisfactory, the monthly service charge may be reduced (abatement); but if the service level improves the following month, the service charge will return to the previous level.

Generally, the first five years after construction of a new road see less than the maximum amount of traffic, and the operator may struggle financially. Consequently, various options can be considered to support the private sector during this period. For example, the government may bear 50% of the cost while the private sector is having financial difficulties, or the government may bear all costs for the first five years but not any after that. Upper and lower limits of risk also can be set, with the government

receiving the surplus when exceeding the upper limit and taking on the loss when falling short of expectations.

When the government developed toll roads using PPPs in the past, it promised that it would not build a free highway within areas of competition, and it narrowed an existing road to cause traffic congestion, to encourage drivers take the toll road. In Korea and Europe, a guaranteed income system is sometimes introduced. However, since it is hard to predict future demand, and the governments cannot promise they won't build a road for 30 years, the guaranteed income system is never an option in Australia today.

(5) Funding

Western countries have learned that railway fares cannot cover operating costs, let alone recover invested capital. Tolls on roads are also insufficient to recover invested capital, since the initial investment for roads is massive. Funding for PPP projects is largely dependent on fiscal measures that may include subsidies, general account budgets and the issuance of bonds, tax schemes including property taxes, the return of development benefit, and income from asset sales and sales of operating rights and other policy options.

These plans were previously devised by the relevant administration offices and parliaments in Japan, and there was no room for private sector involvement in policy decision making. However, for PPP projects, the formation of these plans includes the participation of consultants, banks and investors. Regarding toll charges, for example, the combination of a weight-based charge (the heavier the truck, the higher the charge), a distance-based charge, a capping system, and a connection charge is possible. Regarding taxes, since enhanced transportation convenience will lead to increases in the property tax (real-estate tax) revenue attributed to increases in the land prices, local governments are encouraged to start and finance projects by borrowing. There are several ideas for financing a project aside from specific revenue sources and special purpose tax revenue, which assume a beneficiaries-pay principle. Indirect beneficiaries who can avoid traffic jams may be asked to bear the costs to build bridges and tunnels, although there will be some political difficulties.

An example of financing a PPP is the WestConnex Project[14]. The State of NSW announced in October 2012 that they would build a 33km highway. The plan will connect congested toll roads in the western suburb of Sydney, and will take 10 years to complete. The project includes the expansion of existing roads and the construction of tunnels and other facilities. According to the website, the project will cost over AU$11 billion. Except for AU$3.3 billion committed by the federal and state governments, the cost will be covered by user fees. However, since this is too much for only the private sector to bear, the cost was divided into a few segments, and the first work on expanding the existing toll roads was financed by the government. They also decided that, when a certain section is opened, the SPC will issue bonds using the toll charges as security to finance the next phase of tunnel construction. This scheme was made possible because of PPP.

(6) Monitoring

Proper procurement and provision of services according to contract will be monitored by reports from the relevant companies (required under the contract), by a steering committee, by financial institutions, and by independent third party organizations. Since banks are especially sensitive to risk, they make excellent monitors of the profitability of a business.

Effective monitoring requires wisdom from the government. For example, the government can stipulate in the contract that they will reduce the payment of the service charge when a contracted transportation company does not satisfy the required indicators, which may include punctuality, frequency of operation, and efficiency.

Victoria State set a strict clause for the contracted operator of the City Link toll road, which states that the state can terminate the contract unless the contractor meets the requirements. For the following PPP project of East Link, the government added up penalty points each time the contractor did not satisfy a key performance indicator (KPI), and set a free-of-charge day to return the profit to general users. This method provided effective incentive for the contractor to avoid making mistakes.

As shown above, PPP projects are advantageous in maintaining or improving service quality, and in solving other problems, when they take advantage of past experience to add revisions to contracts. As a PPP agreement does not have any predetermined model, much is left to the creativity of the concerned parties to make it work. It is essential, though, that a PPP agreement has the flexibility to incorporate solutions based on past PPP items in addressing problems.

4. Problems in Japanese PFI System and Public Nature

The former chapters cover international standard PPPs, especially the status of PPP operations in Australia. Using these as a benchmark, this chapter studies the operations of Japanese PFI systems. There are institutional barriers in Japan to using private companies to assume public sector jobs, because the perception of what "public nature" means and the background of the legal system are different from other countries. This report was not meant to cover public philosophy relating to the question of what the nature of "public" is, but to review the meaning of public nature from the viewpoint of the legal tool concept and to utilize the diversity and flexibility of PPPs. This paper discusses how to resolve the inconsistent perception of the dichotomy between public and private spheres, which has been the backbone of Japanese legal and financial systems.

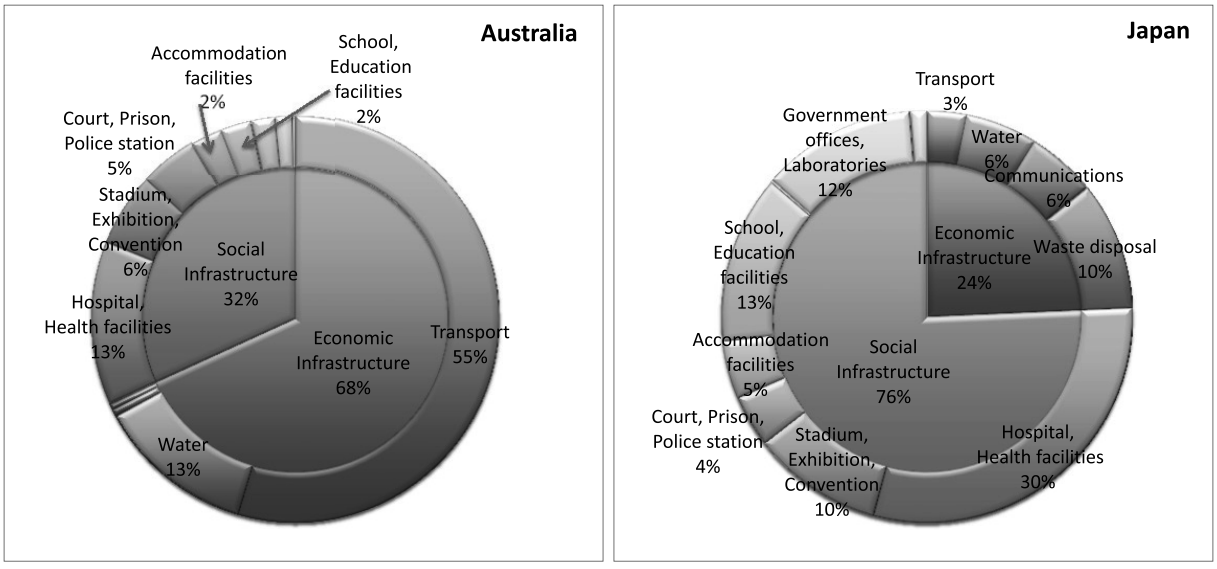

Figure 2 Comparison of PPP Project Status by Sector (value basis)

(Source: Author, based on the websites of Infrastructure Australia and Japan PFI/PPP Association)

4.1. Introduction of PFI in Public Work Projects

According to the Cabinet Office, 418 Japanese PFI projects have been implemented and disclosed, with a total projected expenditure of ¥4,250 billion, as of March 2013. PPP projects in Japan have delivered reasonable results for nearly 15 years now. The average cost per project is ¥10.2 billion, which is about one fourth that of Australia. However, this is because most of the projects have been used to build public facilities in the social infrastructure category, including schools, hospitals and government buildings, rather than economic infrastructure such as roads and railways. Also, most projects were BTO types, or service purchase types, and this is why Japanese public works are often criticized for only focusing on building facilities under PFI agreements.

The actual areas of PPP utilization are where there is room to improve efficiency by using a private sector method. As stated before, Australian airports and Japanese railways that are already privatized are not counted as PPP, and thus not included in the PPP track record.

On the other hand, although roads in Japan are covered by the PFI Act, the authority of maintenance and management, expense allocation, the setting of parking fees and other details are specified in relevant laws such as the Road Act and National Express-Motorways Act. Article 20 of the Road Act and other relevant regulations stipulate that no private person can construct or administer roads. These areas cannot employ PPP methods unless the relevant public property acts are amended. Another example is the water supply business. In this case, a private company can run the business institutionally. However, since public companies have dominated the business field, and private companies have had hardly any opportunity to engage in water business management, no PPP project has been promoted in this area. The private companies simply do not have the experience needed in total water business management, even though they may utilize their elemental technology.

In short, the issue is whether an operator, either public or private, can operate a business efficiently with a strong competitive edge and achieve the public purpose. If the public cannot do this, the business needs to be made efficient by introducing private sector methods, as in PPP projects.

In Japan, when the public sector does business in a fierce competitive environment, such as in the railway business in a metropolitan area, they are likely to achieve a level of competitiveness that approaches the private sector. However, most entities providing public services are local monopolies. They can maintain their business even if they are run inefficiently by simply receiving an injection of taxpayer funds in the name of public need. There is probably much room for improvement in most parts of these conventional services.

Having said that, it is difficult to know the life-cycle cost and the cost of risk, which is supposed to be transferred to the private sector, based on Public Sector Comparator (PSC) calculations. In addition, it is obvious that funding costs, documentation and other administrative expenses and consultation fees will increase. If private companies succeed in acquiring public finance, such as a national government subsidy or grant, they will not bother to apply for a PFI, which will consume time and money.

To save public finance and improve public services in a real sense, departments responsible for public finance and the Ministry of Finance should act as a commander, and set rules so that they can force the consideration of a PFI when project costs exceed a certain level and a certain VFM can be expected.

4.2. Meaning and Attribute of Public Nature

Public goods are generally characterized as non-exclusive and non-competitive, and they are economically categorized similarly to quasi-public goods, club goods and merit goods. This provides the grounds for the involvement of the public sector in the process of supplying goods using taxes, as the

market does not always function ideally. However, the ideal way of providing these goods is not necessarily found in economic analysis, and there are various system options.

As to how much responsibility the public sector should take on in providing public services such as water supply, energy supply, public transportation, and waste disposal, the German public law system, which is the source of Japanese law, has legal theories regarding the "responsibility of the state to guarantee (Gewährleistungsverantwortung)" and the "provision of public services for the well-being of all (Daseinsvorsorge)"[15]. Starting with public properties, which are supposed to be provided directly from the public sector, the theories study what ultimate liability should be borne by the government, and how much the public sector can consign to the private sector. In Japan, the terms "public facility" and "public service" generally refer to facilities such as government buildings and community centers that are established and owned by the national or local governments, services such as water supply and transportation that are essential to residents daily lives, and facilities such as roads and parks that are widely used by citizens. These facilities and services were supposed to be provided by the national and local governments with no regard to commercial concerns. Consequently, the main actor in providing public properties has been the governments, using taxpayers' money. The public sector was expected to compulsorily purchase land according to need, develop it, and control it through enforceable administrative measures such as licensing.

Article 3 of the Compulsory Purchase of Land Act states that projects for the public interest include legal-based projects related to roads, parking lots, railway facilities, port facilities, bus terminal facilities, airport, the supply of electricity, gas, broadcasting and communications, water and sewerage, public hospitals, parks and government buildings. This article categorizes public nature by different standards. It is categorized here by facilities such as roads and banks/dikes, by establishing an entity such as a national and local government or independent administrative agency, and by project, such as park construction project and maintenance project. It also specifically enumerates which lands/facilities can be compulsorily purchased.

The facilities, services and projects enumerated in the article of the Compulsory Purchase of Land Act correspond to the subject of PFI projects (Article 2 of the PFI Act).

The administration of public facilities, including roads, rivers and parks, is basically defined in the public properties control acts (e.g. Article 12, 15 and 16 of the Road Act, Article 9 of the River Act, and Article 2 paragraph 2 of the Urban Park Act). The establishment and administration of public facilities in each municipality is stipulated by relevant ordinances (Article 244 paragraph 2 of the Local Autonomy Act), which usually impose restrictions on private rights[16]. These regulations, which belong to the group called public property laws, are systematically categorized as administrative law by the dogma[17] of public law and as private laws in the Meiji Era and thereafter. Incidentally, the United States does not have a general concept of public property law[18].

Public nature is sometimes rephrased as social common interest[19]. Public nature means something that is not exclusively used by a certain individuals, and which the general public is not prevented from using. Having public nature means that accountability to taxpayers who bear expenses is ensured, and that the proceedings and business owner's governance are disclosed. The PFI Act in Japan stipulates the principles of public nature, fairness and transparency in its Basic Policy[20]. The terms 'public nature' and 'public interest' imply non-exclusiveness, fairness (neutrality) and transparency (openness).

4.3. Problems in Entrusting Public Sector Jobs to the Private Sector

When public facilities and public services are essential, and need to be developed even in a forceful manner, the exercise of public power requires constitutional and democratic legitimacy. In this sense, to limit administrative discretion and prevent arbitrary execution, and to keep the administration

under democratic control, the rule of law is substantiated in the current public law system. Therefore, it was only natural that the administrative organization was the public sector, which was supposed to serve as the business owner and be strictly controlled by laws, while profit-making companies were excluded from unprofitable public work projects. Under a conventional legal system that divides public and private laws, this easily understandable picture of "public" meaning the government (bureaucracy) and "private" meaning the people and commercial companies is widely accepted.

In addition, since citizens trusted the public servant system, they expected equality and neutrality from the public organizations in securing public nature. Even if a project was operated inefficiently by the government, if public nature was secured at low cost by utilizing the reliability of the public servant organization, it could be said that the public servant system had some rationality.

Contrary to this conventional way of thinking, once reform via the NPM approach (including PPP) started to address the deterioration of public finances and public services, private corporations become the main actor in providing public services. This move was not assumed in conventional positive law in Japan, although the distinction between public and private laws in theory has been criticized. Some people fear that commercial enterprises may infringe on the common interest of society in the pursuit of profit[21]. Profit-making companies acting as bearers of public services still produce a sense of strong wariness[22]. There is also a sense of resistance towards private companies' using public properties and public services as a means of making profit. These concerns about losing the "public nature" seem to prevent PPP from spreading in Japanese positive law, as in the public properties control acts.

4.4 Legislative Solutions

The administration is not allowed any arbitrary discretion in its activities or procedures involving the exercise of public power, as they are strictly controlled under the laws set by parliament. On the other hand, the administration can contract out the provision of public services that do not entail the exercise of public power from a legislative point of view. For example, the water supply business is supposed to be run by municipalities in principle, but the relevant law says the water supply contract shall be based on a private provider and a user. In other words, the law does not preclude private companies from becoming business owners in this area, on condition of the approval of the Minister of Health, Labour and Welfare[23] (Article 6 of the Water Supply Act).

For municipal swimming pools, municipalities give permission for use and collect usage fees based on the relevant ordinance. However, this is no different from a contract where the municipality receives admission fees for use of the facility. The pools do not have any public nature, with the exception of the fact that the installation entity or the owner of the facility is the municipality. It is hard to find differences between public and private sectors in public services related to schools, hospitals, electricity, gas, water or transportation.

One concern is that the private company that has become the business owner will restrict public access to roads, parks, and other public facilities, and that it may intentionally refuse to supply living essentials. However, no such problem has occurred in the provision of electricity by the private sector. In addition, these concerns can be addressed by concluding a contract between the government and the private business operator stating that "the contracted business owner shall not refuse citizens the use of the public facility without justifiable grounds," and "shall not treat any citizens in an unjust or discriminatory manner regarding their use of the public facility" (Article 244 of the Local Autonomy Act). The private contractor can also be controlled by using standard business laws. Regardless of public or private sector, it goes without saying that all business operators must comply with regulations created for public purposes, including those that address public safety and national land conservation. The

principle of reservation of infringement exists because ownership and property rights are assumed to be infringed by the individual regulatory authority that government ministries and agencies inherently represent. This leaves no good reason for restricting the management of every public facility to the government. As long as the necessary measures are taken to secure public nature, it should not matter if the business operator is a private company. From a legislative point of view, the management entity is not restricted by relevant public properties control laws. Rather, public purpose should be pursued via minimal regulation of operation management.

Methods that limit the qualified applicants for public corporations, which are prohibited from receiving dividends, and exclude for-profit corporations from participating, are used in various fields to simplify tax issues. However, even though there is an ideal that no profit shall be gained from public works, since the public sector's profit leads a reduced taxpayers' burden, the public sector should rather be encouraged to make profits. In addition, if risk is transferred to the private sector to reduce the burden of the public sector, the public sector should accept the private sector's returns as well. If risk is forced on the private sector but no profit is allowed, the private sector's participation cannot be expected.

4.5. Means to Secure Public Nature in Australia

For the private sector to manage services that have conventionally been handled by the public sector, and which have been supported by the people's trust in government organizations and the public servant system, it is important that the private sector ensure non-exclusiveness, fairness and transparency in their business, in a sustainable and effective way, through a contract with the public sector.

To that end, prohibitions against denying access without good reason, prohibitions against offering favors to any specific individual, the principles of nondiscrimination, and disclosure of bidding procedures and governance should be specified in the contract. In the event that a contract is violated, the contract should be canceled, the private sector should pay compensation, the public sector should reduce the amount of service charges they pay and other measures should be taken as needed. Learning from Germany, the government has the responsibility of the state to guarantee and to ensure compliance[24)].

Australian PPP guidelines show some other methods that are used to secure public nature.

Since transparency of the procurement procedure is critical whenever public funds are used, the guidelines require the establishment of an independent organization of experts comprising probity practitioners (fair auditors), and require this organization to evaluate and report on whether fairness is being fully secured in key situations in the bidding procedure. This independent organization serves as a mediator between the ordering party and the bidders. It attends the presentation, gives advice and answers questions, endorses the probity plan that covers the probity practitioners' roles, adds precautions to ensure fairness in the bidding procedure, and monitors the entire procurement process.

Another important consideration is full disclosure to eliminate any chance of conflict of interest.

If there is a stakeholder on the government side, or in the ordering party, the fairness in bidding will be suspect. Some measures need to be taken, and not only when conflict of interest actually occurs (1), but also where conflict of interest may occur in the future (2), and where fairness may be lost (3). Especially as the numbers of experts in consulting firms for the ordering party are limited, the same experts may end up being in charge of multiple projects. Then, the guidelines set detailed rules of disclosure for various cases, including (3). Even if an expert has experienced an audit before, he/she will not be excluded from the bidding immediately. However, a detailed disclosure is needed. This would include the expert's work record if he/she was an advisor for any bidders, a history of contracts with the concerned companies, and individual relationships.

The project director is responsible for disclosure and the senior responsible officer addresses the overall issues of conflict of interest in a responsible manner.

4.6. Drastic Deregulation

The reason why this discussion of using public-private collaborations to reform various public facilities started is not only because of a world trend towards NPM, but also because problems in the Japanese governing mechanism have surfaced with the changing times. Local governments that serve as the troubleshooter on-site have fiscal problems, and do not have the resources to provide sufficient experts. It is unrealistic for them to provide all public services directly. More importantly, it is not ideal for citizens either. This is because there are clear differences in terms of the quantity and quality of the services provided between private sectors (who provide experts with knowledge and experience in specific business management methods) and public sectors (which are accustomed to the approval and authorization style of the administration, and who have little concept of management or service).

Consequently, PPP was introduced to implement a business with increased efficiency using the private sector's knowledge, while taking public nature into consideration. However, statutory laws that have excluded the private sector from public projects are now significant obstacles that inhibit the utilization the private sector's advantages.

Japanese laws, regulations and ordinances usually include very detailed provisions to tightly control the discretion of the administration by means of democratic control, even for areas of administration that provide benefits without the exercise of public authority. Even if private companies want to demonstrate their management ability, as long as they must comply with these laws and regulations they will have little discretion in management.

The advantages of PPP are its diversity and flexibility. We expect the private contractor to bring new user fee plans, new charging methods, and new public services. However, if these are already regulated by law, there is no meaning to opening a public sector job to private companies.

For contractual arrangements, the rules to be set depend on private autonomy following the principles of freedom of contract. However, when following a governmental approval system, everything is prohibited in principle, and then prohibitions are canceled piecemeal under certain conditions. In a world where everything is prohibited except those things specifically allowed by law, the advantages of PPP cannot be fully utilized.

When introducing a concession system in the future, if the concerned parties want to utilize private sector knowledge and make the project a success in line with the objectives of the concession system in any real sense, drastic deregulation will be needed to remove as many of the legal restrictions that the national and local governments impose on themselves as possible. Specifically, it will be necessary to abolish the provisions of administrative discretion (controlled discretion) to replace an ordering system based on detailed specifications with performance specification contracts. The radical revision of existing laws is needed to allow business projects to be discretionally managed by their operators, regardless of whether they are public or private, and to allow the public principles that the operators must comply with to be stipulated in laws and regulations.

Despite growing demand for deregulation in Japanese growth strategies and development policies that are aimed at strengthening Japan`s international competitive edge, we have not seen any significant progress in this area. This is not only because of bureaucratic resistance seeking to protect vested interests, but also because the area uniformly governed by laws (but not by private contracts) is so large that an enormous amount of work needs to be done to loosen these prohibitions every time people want to start something new.

However, the opinion that stipulating these details in laws and regulations itself is too much and

unnecessary will not be accepted in a hermeneutic study of positive law, because the rule of law is the source of democratic control, and the more citizens can be protected from public power, the better.

On the other hand, even countries with a continental legal system, such as France and Germany, are studying administrative contract theory. In a similar fashion, it is essential that we create a legal environment that allows independent private parties to set rules, with consideration given to protecting citizens' rights.

5. Conclusions

Australian PPP projects in transportation areas were chosen as a research subject because I was expecting to reflect the research results on a specific case. Transportation, including airports, railways and subways, has a high level of public nature. At the same time, they are profitable areas.

The Act on Management of State-Controlled Airports Utilizing Private Sector's Ability, approved in June 2013, allows the opening of specific operations related to state-controlled airports to the private sector. This system is likely to be promoted as one of the public facility operation projects under the PFI Act. As of December 2013, the Fukuoka Airport Operation Review Committee is seeing growing consensus toward consigning airport operations to the private sector, possibly using the concession method.

Although this report failed to apply the research results to specific cases to suggest best practices, it at least points out the following concerns for future processes.

Whether a concession contract can be concluded depends on whether the operation of the airport in question makes good business sense. Some world-class airports have dramatically increased the number of passengers by going with the privatization route. From the viewpoints of economic power, potential, and international competitiveness of the city and region where the airport is located, the first question is whether there is an opportunity to make a leap forward. If so, the second question is whether the scheme is adequate to utilize the opportunity.

Beyond the boundaries of governing agencies and prefectures, private investors may make comprehensive proposals to increase passenger traffic. They may include the opening of new routes, expansion and enhancement of basic facilities at the airport, investment in boarding facilities, improvements in transportation accessibility via railways, highways and subways, and integrated operations and sharing of functions with neighboring airports, not to mention improvements in passenger services. The privatization of an airport can be a business opportunity, and attractive to private companies only if it is positioned as part of a city's comprehensive strategy. Unless the national or local government's facility development plan, which can be used to anticipate future returns, and the scope of allowable private sector discretion in actual operations become clear, private companies cannot make a sound decision on whether they should participate in the project.

To that end, the government, or the central player in a concession contract, needs to initiate dialogue with the private sector in the early stages and present a favorable proposal to attract the participation of multiple private operators. This can be done by collaborating with the local community. If the concession itself becomes the goal of a project and the public sector transfers risks to the private sector unilaterally, they will likely make the same mistakes they did when they used third sector methods. Wide-ranging discussions should be held as a part of the growth strategy to strengthen global competitiveness.

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Endnotes

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3) Refer to Guidebook on Promoting Good Governance in Public-Private Partnerships.
   http://www.unece.org/fileadmin/DAM/ceci/publications/ppp.pdf
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5) Refer to page 3 of National Public Private Partnership Guidelines, Overview, 2.1 Defining PPP.
6) The UK HM Treasury announced in its December report of "HM Treasury, A New Approach to Public-Private Partnerships, 2012" that they would drastically review the conventional PFI and introduce a new system called PF2.
   https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/205112/pf2_infrastructure_new_approach_to_public_private_parnerships_051212.pdf
7) Average of 451 cases between 1999 and 2012
8) U.S. Department of Transportation, Federal Highway Administration (2007), *Case Studies of Public-Private Partnerships for Transportation Projects in the United States* 2-5, Aecom consult team
   http://www.fhwa.dot.gov/ipd/pdfs/us_ppp_case_studies_final_report_7-7-07.pdf
9) The Canadian Definition also excludes DB from PPP. Refer to Note 4.
10) Australian Bureau of Statistics, Series 5206.0 Table3
    Refer to the report of the Development Bank of Japan "Possibility of PFI for Large-scale Renovation of Aging Infrastructure and Points of Attention in International Comparison of Public Debts – Comparative Analysis of Infrastructure Development By Utilizing Public Fund in Japan, U.K. and Australia" 2013.5.
11) In this report, the reference date for each business year is the financial close date.
12) PPP projects pay attention to methods of business but not methods of classification, and so the area covering PPP differs by country or organization. Australian data used in this report is based on the statistics of federal level PPP projects with a capital value of AU$ 50 million, as disclosed on the website of Australia's Public Private Partnership Pipeline.
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