Effective Implementation of BTL Projects in Korea

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1. Introduction

At the end of 2004, the government of Korea had announced its ambitious plan to introduce a new type of public-private partnership (PPP) program of Build-Transfer-Lease (BTL) as the core concept of the comprehensive investment plan that would stimulate the construction economy and job placements. During the past ten years of PPP implementation, mostly carried out through Build-Transfer-Operate (BTO) type, the total investment size was US $47 billion for more than 160 projects. Considering such figures, the recent announcement of the size of BTL projects during the three years of the first phase (2005~2007) would be a total of US $23 billion implies that the scale of BTL project implementation would be just as active as, if not greater than the scale of the previous PPPs.

BTL is a contract type of public-private partnership in which the concessionaire makes an investment to BUILD infrastructure, TRANSFER the ownership to the central or local government upon completion of construction, and after having received the right to management and operation for a given time LEASES the facility to the government. The concessionaire can get return on investment from the lease fee paid by the government for a time determined in the concession agreement.

The Korean government has put in place a task force team in the Ministry of Planning and Budget and many line ministries to promote BTL project implementation. Keeping in mind the investment priorities, the task force team formulated a mid- and long-term plan for 17 candidate sectors and an investment plan to input US $6 billion to 128 individual projects, and, in last May, reported to the National Assembly on the total maximum amount to be spent in project that are implemented in 2005. Just this year alone, the government aimed to invest US $2.6 million in the new construction and improvement of elementary and secondary

schools, US $600 million in the improvement of run-down military housing, US $400 million in railways, US $400 million in the new construction of national university dormitory housing, and US $1 billion in environmental facilities.

However, until now, there are problems to solve in the implementation of the new PPP contract type. Many issues have already been raised such as how to select, prioritize, and mange BTL projects in the area of education, military facilities, and environmental facilities. These issues arise mainly from the novelty of the BTL contract type and that it is in the early stages.

This paper aims to discuss the progress and the problems of BTL project implementation, seeking a right guideline to encourage efficient mode of BTL implementation. In section 2, a general overview of the public-private partnership program in Korea will be presented. The characteristics of the PPP Act and institution build-up and a trend of public-private partnership investment will be presented. In section 3, a brief explanation is provided to show how the BTL program has been launched in 2005. In section 4, special attention will be paid to discuss how a project is selected through BTL scheme, how a value for money test is carried out, how to make the request for proposal announcement and proposal evaluation, how to make government payment system, and how to treat accounting and reporting system for BTL.

2. Public-Private Partnership Investments

2.1. The PPP Act and Institution Build Up

In Korea, efforts to develop private investments in infrastructure were initiated in the early 1990s. In 1994, the Private Capital Inducement Promotion Act was enacted to promote

private participation in public investment, primarily projects in transportation. This first Public-Private Partnership (PPP) program was not a success because of substantial risks not properly mitigated. The government targeted 40 primary infrastructure facilities, but was only able to develop five of them. PPP projects were grouped in two categories: category-1 and category-2 projects. Category-2 projects included power generation plants, gas supply, bus terminals, tourism promotion areas, and sports complexes. Category-1 projects involved more strategic infrastructure projects such as roads, railways, subways, ports, airports, water supply and telecommunications. The private sector could obtain ownership only in category-2 projects. As a result, category-1 projects could be carried out only through Build-Transfer-Operate (BTO) scheme, whereas category-2 projects were eligible for a broader scope of options including Build-Operate-Transfer (BOT), and others.

The PPP Act (or formally, the Act on Priate Participation in Infrastructure) was enacted in 1999. The Act encouraged private participation in the power, gas, transportation, airports, ports, telecommunications, water and sewage sectors by providing tax and other incentives to private investors, and by improving the procurement process. The Act included incentives for foreign investors such as: (i) a 10 percent value-added tax exemption, (ii) a government guarantee of up to 90 percent of estimated operating revenues, (iii) a bonus for early completion of construction, and (iv) the compensation for losses due to foreign currency exchange rate fluctuations. In addition, the Act abolished the former categorization of infrastructure projects and enhanced transparency in the procurement of PPP projects.

Based on the Act, the Ministry of Planning aand Budget established the Private Infrastructure Investment Center of Korea (PICKO) in the Korea Research Institute for Human Settlements, as a specialized agency to provide technical assistance to competent authorities on the preparation of feasibility studies and on the preparation of PPP projects

tenders. PICKO was responsible for the review of feasibility studies prepared by competent authorities (ministries and local government), and was also in charge of the evaluation of bids. A ten-year PPP plan listing priority PPP projects was prepared by the government. In January 2005, the government passed an amendment to the 1999 Act on Private Participation in Infrastructure establishing the Public and Private Infrastructure Investment Management Center (PIMAC) as a new unit. PIMAC is a merger between PICKO of Korea Research Institute for Human Settlements and Public Investment Management Center (PIMA) of Korea Development Institute (KDI).

2.2. Number of PPP Projects and Investment

After the 1990s, the infrastructure facilities in Korea have expanded enormously. Continued investment in transportation facilities has been made by the government in an effort to reduce logistics costs. In 2004, road stocks have been expanded by 3.8 times, port capacities by 2.6 times and airport by 1.5 times when compared to those of 1990 (see Table 1).

Table 1. Expansion of Infrastructure Stock Level

Expanded facilities	1990 (A)	2004 (B)[1)]	(B)/(A)
Roads of 4 or more lanes (km)	4,823	18,290	3.79
Two way railroads (km)	847	1,079	1.27
Highways (km)	1,559	2,923	1.87
Port capabilities (million ton/year)[2)]	190	501	2.64
Airport capabilities (thousand times/year)	1,331	2,012	1.51
Housing (thousand units)	7,357	12,988	1.77

Note: 1) The figures are an estimate.
2) The figures are based on trading ports.

Public investment budget was concentrated on infrastructure from the mid 1990s to 2000, and later the increase in the amount of government infrastructure investment was curbed.[1] In Table 2, the average increasing rate of infrastructure budget was 19.1% from 1993 to 2000, which is an extremely high rate compared to the average rate of total spending of 12.9%. With the installation of the special account for transport facilities, procuring investment finances for infrastructure gained stability and resulted in an explosive investment in infrastructure facilities. The proportion of budget allocated for infrastructure, however, was stalled in 2004 due to increased budget proportion for other areas such as social welfare since 2000. In 2005, the increase has slightly picked up to 1.8%.

Table 2. Increasing Rate of Infrastructure Budget

(unit: %)

	1993~2005	1993~2003	1993~2000	2000~2003	2003~2005
Infrastructure	12.6	15.8	19.1	8.3	-1.9
Transport	11.8	15.1	19.0	6.5	-3.0
Other	16.9	19.9	20.2	19.2	3.3
Total Spending	10.9	12.0	12.9	10.0	5.5
GDP		9.5	10.3	7.6	

Source: Ministry of Planning and Budget (2005).

For the decade, main sources of funding for Korea's infrastructure investment included taxation, designated funds (special accounts), public pension funds, and private funds. Recently, public financing of infrastructure projects has been progressively replaced by private investments. The amount of private sector participation in infrastructure investment compared to that of government budget has been increasing. The ratio of private investment over government investment recorded 4.7% in 1998, 7.1% in 2000, and 15.1% in 2004.

[1] Budget for infrastructure investment in Korea includes spending on roads, railways, seaports, airports, water supply, public housing, logistics, regional development, and industrial complex development.

Table 3. Ratio of Private Infrastructure Investment over Public Investment

(unit: KRW bil. %)

	1998	2000	2001	2002	2003	2004
Private Infrastructure Investment (A)	529.3	987.1	592.4[1)]	1,653.2	2,119.3	2,519.4[2)]
Public Infrastructure Investment (B)[3)]	11,175.5	13,886.6	14,802.2	1,585.5	17,656.8	16,716.3
(A)/(B) (%)	4.7	7.1	4.0	10.6	12.0	15.1

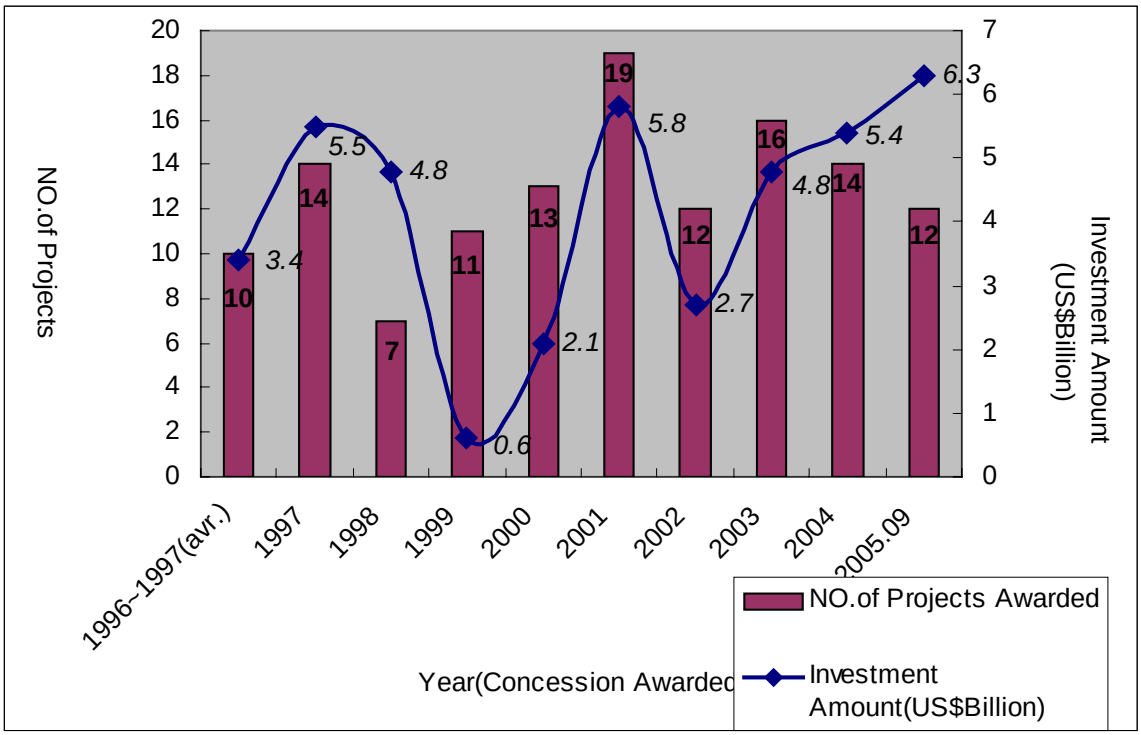
Note: 1) In 2001, the figure decreased temporarily due to the completion of New Airport Highway.
2) Tentative.
3) Investment amount input by central government.

According to a study by the Korea Research Institute for Human Settlements (2002), Korea still needs to make public infrastructure investment in the amount of US $152.8 billion in 2002-2011, among which US $84 billion for roads, US $44 billion for railways, US $17.3 billion for seaports, US $5 billion for airports, and US $2.5 billion for logistics. Appropriate distribution of infrastructure investment is suggested as government investment of US $106.5-131.3 billion, private investment of US $21.7-46.5 billion, and government subsidy of US $7.4-15.9 billion.

As of September 2005, out of 169 projects, 128 concessions at both central and local government levels have been awarded of which 44 (6 central, 38 local) have completed construction and are in operation, and the others are under construction, preparing to begin construction, or under negotiation (see Figure 1). Local and central governments have been increasingly involved in developing PPP projects. These projects involved major urban infrastructures such as bridges, expressways, tunnels, and water treatment plants. This has involved a total investment of about US $41.4 billion, predominantly funded in local capital and commercial bank markets, with only a few projects tapping the international capital

markets. Out of 128 projects awarded, only 12 involved foreign firms. The participation of foreign firms is estimated at US $887 million or less than 2% of the total PPP investment.[2]

Figure 1. Number of PPP Projects Approved



Source: PIMAC (2005)

Bank financing of PPP projects increased tremendously. Bank financing of PPP projects reached a total of US $20 billion in 2002 compared to US $2.5 billion in 1995 when the first PPP legislation was enacted. But most bank financing went to projects supported by the central government whereas the number of projects promoted by local governments has remained predominant.

[2] Foreign participation is distributed between US $279 million in equity participation and US $642 million in debt participation. This includes 6 projects in roads or expressways, 1 harbor project, 2 light rail transit projects, 3 subway transit systems.

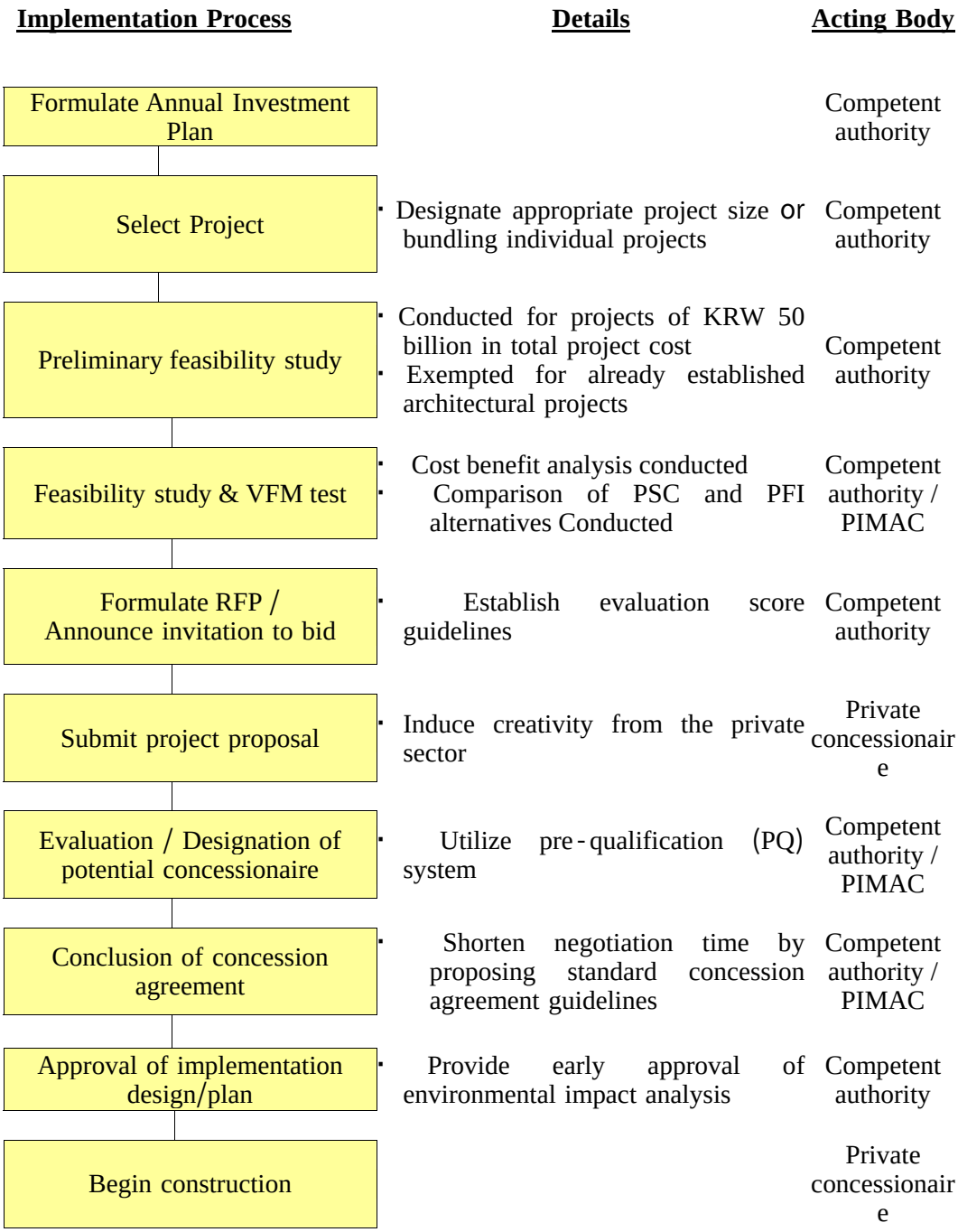
2.3. Procedure of PPP Projects

The competent authority, the Ministry of Construction and Transportation (MOCT) in the case of transport infrastructure project, undertakes the initial development of the project. The MOCT is responsible for conducting feasibility study, formulating the invitation for proposal (IFP), evaluating the proposal, designating the potential concessionaire, approval of the engineering plan, and confirmation of project completion. Upon request, PIMAC shall provide a technical assistance for the MOCT in executing feasibility study, formulating the IFP, evaluating the proposal, and the negotiations.[3]

The Ministry of Plannign and Budget can request relevant data and information from competent authority and related private concessionaire in order to be aware of the status of the PPP projects. Every competent authority shall submit to the Ministry of Planning and Budget a quarterly status report of the current PPP implementation contents. The Minister of Planning and Budget can organize and chair an advisory group committee called the PPP Project Committee. The Committee will review the following: major policies for PPP program, establishment and modification of the Annual PPP Plan, designation and cancellation of a solicited project, designation of a private concessionaire, and other matters which the Minister of Planning and Budget proposes for promoting PPP projects.

[3] Until the end of 2004, the Ministry of Planning and Budget strongly recommended that the competent authority should consult with PIMAC at every stage of the implementation procedure. However, the consultation was not mandatory, but only encouraged. According to the amendment of the PPP Act in 2005, the feasibility study and VFM test for every unsolicited proposals should mandatorily be reviewed by PIMAC. In the case of BTO solicited projects, the consultation is still recommended, whereas, in the case of BTL solicited projects, mandatory.

Figure 2. PPP Project Implementation Procedure



3. BTL Scheme Launched in 2005

In the year 2005, the government has announced to introduce a new scheme for PPP project implementation, that is Build-Transfer-Lease scheme (BTL). Under this scheme, the private concessionaire makes an investment in constructing social infrastructure facility such as school and military apartment,[4] which is transferred to the government for ownership upon construction completion. The government grants the right to management and operation back to the concessionaire, and the concessionaire leases the facility for an agreed period of time and gets return on investment from lease rent. The lease fee is calculated by taking the investment principal and interest that is facility investment cost (total private investment cost) reflecting the rate of return. Appropriate level of lease period is set by individual project basis taking into the economic life cycle of a facility and other factors such as government subsidies. The operating cost is composed of facility maintenance and repair cost and other necessary cost for providing operating service. The yearly operating cost is set up in advance as a fixed amount in the contract. The actual operating cost payment, however, can be adjusted based on the performance of operating service.

In BTL scheme, facility lease term is defined as 10 to 30 years. The project rate of return is determined by the market rate based on a 5-year maturity government bond interest rate plus alpha ($+\alpha$) for each project. The value α is supposed to reflect long-term premium, risks involved in individual facility construction and operation, etc. BTL private investors establish special purpose companies (SPCs) that take charge in design, financing, construction, and operation (or maintenance and repair). The investor composition for SPCs would mostly be financial investors, construction companies, operating companies, etc.

[4] There are two types of infrastructures for PPPs. One is economic infrastructure where user fee is usually charged for their services (for example, construction of roads, railways, seaports, etc.), while the other is social infrastructure where user fee not charged (for example, construction of schools, hospitals, apartment, etc.).

In March 2005, the Ministry of Planning and Budget announced a three-year plan of BTL investment, including investment scope of US $23 billion in 2005-2007. In addition, the Ministry of Planning and Budget and the Ministry of Finance and Economy announced some tax and subsidy incentives for the BTL projects. There is an additional 10% on the level of subsidies provided for multi-functional facilities of local government projects.[5] The government induces participation from regional small- and medium-sized construction companies through guarantees by providing preferential treatment on the equity ratio of regional construction companies at the time the proposal is evaluated, or providing a credit guarantee on borrowing construction funds for regional construction companies. Tax benefits to BTL projects are included as well. There will be 0% VAT when SPC transfers the ownership of the relevant facility to the central or local government. Regulations of minimum equity amounts are alleviated from US $5 million to US $1 million to provide exemption of corporate tax of SPC.[6]

2005 BTL Investment Plan includes 128 projects in the scope of US $6.2 billion. The eligible facilities in 128 projects are: new construction of elementary and middle schools, rehabilitation of worn elementary and middle schools, gymnasium and auditorium of elementary and middle schools, new construction of military personnel housing, new construction of soldiers' barracks, new construction of polytechnical college facilities, new construction of national university dormitories, repair of worn sewage network and waterworks, new construction of culture and art centers, libraries, museums, galleries, and new construction of senior citizens medical welfare facility.

[5] A good example of a multi-functional facility is shown as: (school + library + childcare facility + culture center).

[6] There are other incentives for financial institutions investing in private investment projects: for example, allow banks, insurance companies, etc. to participate in SPC as the largest shareholder, and provide tax exemptions on dividend income of individual investors of the Infrastructure Fund.

Table 4. Expected Investment of BTL Projects in 2005

Departments	Types	Budget (KRW billion)	Number of projects
Ministry of Education	Dormitory (National University)	456.5	27
	School	2,642.20	62
Ministry of Defense	Military Housing	613	13
	Barracks	64	10
Ministry of Culture & Tourism	Cultural Center	156.4	4
	Library	35	2
	Museum	170	4
	Complex facilities	259.7	8
Ministry of Health & Welfare	Facilities for seniors	52.6	2
	Local hospital	83.6	2
	Welfare town	15.3	1
Ministry of Environment	Sewage Treatment Plant	1,000	17
Ministry of Labor	Dormitory	39.8	1
Ministry of Construction & Transportation	Railways	435.8	1
Sum		6,027.80	

Source: the Ministry of Planning & Budget(2005)

4. Institutional Settings for Effective BTL Implementation

4.1. Project Selection

The BTL project implementation process begins with selecting the candidate projects. It cannot be overemphasized enough to say that the success depends on the right selection of the projects. In the long term purchase contract like BTL project, the government takes on the demand risk. The demand risk is the most significant risk that a private sector can face when carrying on a private investment project. Among the private sector risks, there is the construction risk, which is accompanied when completing the construction works within the agreed time. There is also the operation risk, which takes place during the operating period. The demand risk refers to the difference in the forecasted demand and the actual demand. This is what the government will take on in the BTL projects. That is what differentiates BTL scheme from BTO in that the private sector takes on most of the demand risk. For example, the traffic demand risk of a private investment BTO toll-road is mostly borne by the private sector, but in a new construction of elementary and junior high school BTL project, the government bears the risk of reduced student number and the use of teachers' facilities.

Just as well, the condition for selecting the appropriate BTL project should be in choosing projects that would not incur too much social opportunity cost even though the demand risk is borne by the government. When there is a stable demand of a facility and the demand forecast is relatively easy, the opportunity cost would be minimized. In that regard, transport projects are not good candidates for BTL implementation. When a transport project such as in roads and railways is promoted through BTL scheme, therefore, there should be a thorough discussion in advance as to who would bear the demand risk.[7]

[7] There exist two railway projects currently designed and reviewed under BTL scheme in 2005.

There have been some assertions that BTL projects should be promoted as a means to cover shortage of government budget. However, that would go against what the BTL scheme promotes. The BTL projects should not be implemented just on the basis of budget shortage. Even if the government bears the demand risk, the projects with low social opportunity cost can turn over social benefits by maximizing private sector efficiency and only then these projects should be considered for BTL promotion. Whether a project can turn over social benefits is to be evaluated through a value for money (VFM) test.

4.2. Value For Money Test

The feasibility of every BTL project should be reviewed and screened through a value for money (VFM) test since 2005. Since BTL promotion is relatively new in Korea, there is a limit to conducting a VFM test thus far. Nevertheless, there are efforts to collect data from the early years of project implementation and create valuable tool to improve the VFM test in the near future. Very recently, PIMAC at KDI published a manual for guiding the test. According to the manual, the test is separated into three phases. At the first phase, main point of the test is to answer the question “Decision to Invest.“ The point is to confirm whether or not a project is worth the social benefit. When the project in review had gone through a feasibility study at the time of implementation as publicly-financed project, the same study will be conducted even if it would be a PPP project. When the project in review had not gone through a feasibility study but rather been determined of its feasibility based on the judgment of the

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The concerned authority, the Ministry of Construction and Transportation, has been taking care of how to develop a sharing rule for the demand risk of those projects between the Ministry and the private concessionaire.

relevant ministry, the same level of consideration is accepted in place of a feasibility study. Projects that are deemed feasible are carried on to the next phase.

Main point of the second phase is to answer the question “Decision to Implement by PPP.“ VFM review is carried out in order to determine whether a project is suitable to be implemented by private finance initiative (PFI) after comparing with the public sector comparator (PSC). The suitability of a project to implement by PPP is determined after analyzing the results of qualitative VFM and quantitative VFM evaluation. The quantitative VFM compares the life-cycle costs of PSC and the case when implemented by PFI. The qualitative VFM compares the level of service quality.[8] When the project in review is deemed suitable to be implemented by PPP, it is then carried over to the third phase.

In the third phase, an alternative PPP implementation is searched and presented. Projects that are deemed suitable to be implemented by PPP are carried through additional financial analysis to calculate expected amount of government subsidy (compensatory portion for construction cost and operation cost). The subsidy amount serves an important guideline in the evaluation process for selecting potential concessionaire and in the negotiations.

4.3. Project Bundling

Another important aspect to efficiently promoting the BTL projects is to bundle them to an appropriate size. In order to attract sufficient private capital and efficiently manage

[8] The current guideline for VFM test, produced by PIMAC and the Ministry of Planning and Budget, recommends that the project is deemed suitable to be implemented only when it meets the qualitative VFM as well as the quantitative VFM at the same time. This is because, tentatively, the government encourages developing and deriving better practices of higher quantitative VFM in the earlier stage of the BTL implementation.

construction and operation of the project, the project should be of a reasonable scale. If a project size is too small, it cannot produce a significant economic impact and would not appeal to the financial investors. By bundling these small projects to a certain size can attract investment interests. Bundling of projects is seen in other countries such as the UK, Australia, and Japan. In the case of school projects in the UK and Australia, usually ten to twenty schools are bundled to one project.[9]

Since bundling of these small-scale projects is to maximize the economies of scale and the economies of scope, the bundled project should comprise of those that can have the same impact. Projects should not be bundled simply because they cannot expect such economies of scale and scope by themselves.

Besides bundling projects to a greater scale, facilities of similar functions should be implemented together. For instance, when a school facility is newly constructed, expanded, or remodeled, other relevant facilities such as a gymnasium, a swimming pool, or a parking lot should be constructed with it. Line ministries should cooperate with each other to promote construction of a childcare facility, a library, and senior welfare center on school grounds. Such cases are common in advanced countries. By way of an example, in Ichikawa, Japan, the Seventh Junior High School was constructed along with a culture center, a childcare center, and convalescents home as an integrated facility project. A similar integration is found in Korea as well, in the integrated construction of Keumho Elementary School and Seongdong-gu Office Cultural Facility.

[9] There has been a debate on the optimal size of BTL bundling in education facilities. In the earlier stage in 2005, the optimal size was estimated as US $50 million, mostly including ten to fifteen schools at one bundling, whereas, in the later stages, the size was suggested as US $30 million.

There are many advantages as well in integrating facilities in BTL implementation. The project cost can be reduced more than when just constructing a separate individual facility. In the case of constructing public facilities, there are many obstacles in land acquisition and high compensation costs but when facilities are integrated such problems are more easily solved. The use of land resource and the facility can be maximized. By providing a one-stop convenient service to users, the integrated facilities can increase user satisfaction. The government needs to search every possible way to stimulate integrated development in the BTL implementation. A plan to apply a preferred budget subsidy rate of 10% point had been announced to support local municipalities that promote implementation of integrated project facilities. But in order to further stimulate integrated approach to private investment project development a systematic cooperation among diverse government ministries and local municipalities need to be reinforced.[10]

4.4. Activation of Supplementary Profit-making Facilities

With the amendment of the Act on Private Participation in Infrastructure, a new channel has been opened to allow the development of various supplementary profit-making projects within the scope of preserving the purpose and function of the original project. A new clause has been inserted in Article 21 of the Act on PPI with regard to the scope of supplementary project implementation: "Article 21." Before the amendment, the clause in Article 21 that stated that the supplementary project is to be "related to the original private investment project" has been amended so that the supplementary project is to be "related to allowing

10 Until the end of November 2005, there are few projects developed in integrating facilities. One reason for the scarcity of integrated facilities in BTL remains the reluctance of the ministries and local governments to cooperate each other.

smooth operation of the original private investment project and improving benefit and convenience of the users."

The types and functions of supplementary facilities are diverse and they usually range from convenience facilities such as a small store and restaurants to charged facilities of gymnasium, swimming pool, and parking lots. In the UK, a military housing complex was built and some of the units were rented to the general public for a fee to lessen the burden of lease paid by the government. The financial burden of the government can be alleviated when the private concessionaire takes on the responsibility of operating the supplementary project.

One important point to address is that a detailed guideline on the scope and content of a supplementary project that can be allowed for implementing through the BTL scheme needs to be developed. Currently, there is no guideline that defines what are accepted for a supplementary project implementation and therefore the line ministries in charge of BTL project promotion are showing reluctance to promoting supplementary projects. Certainly, there is no need to focus too much on the supplementary projects as more than necessary but considering the current trend they should be encouraged more.

4.5. Detailed Output Specification

As seen in the cases of advanced countries, providing and managing a detailed output specification can maximize private sector creativity and efficiency. One cannot expect the private sector to perform to its maximum capacity if the output specification is not clearly designed. It is true that the details in the output specifications of some of the earlier projects with their basic plans announced are not up to the level as they should be. It is owed to the fact that there was not much experience in drawing up the output specification but most

importantly not enough time was invested in preparing for the earlier projects. Starting with the projects that are announced for bid invitation in the latter half of 2005 and those that will be implemented in the following year would require a rather detailed output specification.

One of the problems or criticisms in regards to establishing the standard for output specification is that the estimated total project cost or the operating cost has been proposed without full regard to the contents of the output specification. In fact, some of the output specifications requests a high level of service quality but with very low ceiling for total project cost raising doubts about whether that could be feasible. Such concerns should be addressed further as the BTL experience accumulates and by delving into the relationship between the level of output specification and cost calculation process.[11]

4.6. Penalty on Government Payment through Service Quality Monitoring

The government payment for BTL project can be categorized as facility rent and operating cost. The rate for lease rent is calculated in annual installments of investment principal plus interest, which is facility investment that applied project rate of return and is paid throughout the operating period. The rent is calculated by subtracting the present value of supplementary income from total facility investment cost and dividing the difference by the present value of pension fund and equally dividing by the number of years. The operating cost is the sum of maintenance, repair, and improvement costs incurred during the operating period and is calculated as a standard cost on the grounds that the private sector would operate the facilities efficiently.

[11] There still exists a doubt whether or not to achieve a higher level of output specification with a lower production cost. It is believed that a success of BTL implementation is heavily dependent on the know-how to efficiently harmonize the level of output specification and the level of cost down.

In order to expect improved efficiency in the operation and maintenance the government introduced a penalty system, which is to cut a portion of government payment if operation or maintenance performance falls below the level agreed in the concession agreement after reviewing the yearly performance record.

One of the issues raised with the introduction of the penalty system is whether to apply the penalty to facility rent since the total government payment is composed of operation cost and facility rent. Financial investors from pension fund and the financial sector asserts that the penalty should be applied to only operating cost and that the government should guarantee a no-risk or a 100% payment of rent in order to ensure stable investment environment for BTL projects. However, the other side of the argument is that if the rent that is calculated by reflecting the appropriate level of rate of return is fully guaranteed, then the investors would only collect the rent and not be concerned with operation and management thereby being unable to achieve the expected enhencement in efficiency of the private sector in BTL implementation.

When we observe the case study from the UK and Australia, the general trend is that the penalty system is applied to the entire scope of the government payment, which includes both the rent and operating cost.[12] When the entire structure of the government payment applies the penalty system the operating company, the concessionaire, and even the financial investors would have to take active part in maintenance the facility at the optimal level to avoid the risk of receiving reduced payment and ultimately, that would lead to maximize the creativity and efficiency of the private sector as originally intended for such projects. It would be appropriate to apply the penalty system from a small portion of the payment in the early

[12] For many PPP projects of service contract in Japan, penalty of the government payment applies not to the entire scope of the government payment, but to the operating cost.

stages and extending it to the entire payment at each passing stage to induce the private sector to autonomously incorporate their efforts for efficiency improvement.

4.7. Accounting and Reporting Treatment

Accounting and reporting for BTL contracts is a critical issue in Korea. Some critics argue that the government should get approval of BTL contract in advance from the National Assembly because the payment of BTL contracts is the fixed government obligation to reimburse the investment cost of the private company. In other words, it is a kind of a debt. In addition, there is a concern that the government could easily manipulate the BTL system to increase public spending without appropriate reporting. By the Constitutional Law, however, when the government issues debt, it has to repay the interest and principal to debt holders. The government should report the present value of whole cash payment as a liability in its balance sheet.

However, the Ministry of Planning and Budget recently announced that if a project is financed under the BTL scheme, the capital expenditure is not normally reported as public expenditure because the private company arranges the finance and the government payment is contingent on the performance of operating service. In other words, the government obligation for purchasing contracts (BTL) is not regarded as debt. Therefore, the government does not have to get the approval of payment from the National Assembly.[13] The government, however, should submit the total investment ceiling of BTL projects to be implemented in the

[13] A Korean Accounting Standard capable of addressing characteristics of BTL transaction does not exist. Thus, the private company may use the lease standard to report its BTL contract. Most accounting experts expect that the BTL contracts are reported as financial lease and the lessee (the government) has the ownership of the asset. Since the lease fee by the lessee (the government) is more than 90 percent of asset value in BTL scheme.

upcoming year to the National Assembly. Moreover, any changes occurring in the total maximum amount of facility types, should be reported.[14]

Both the UK and Australia have a long experience in implementing the Private Finance Initiative (PFI). Their experience on how to account and manage the PFI transaction can give important implications for the policy towards BTL contracts.

The accounting standards of the UK treats lease and contracts for services differently. If the PFI contract can be separated with lease and contract for service, the lease should be treated according to general lease accounting rule and the contract for service is not necessarily defined as asset or liability. In case that the lease and contracts for service are not separable, who bears more property-related risks becomes the primary factor in deciding the owner of asset.[15]

Australia has standard sets of tests to determine whether service purchase contracts are sorted into operating and financial lease.[16] The contract is defined as a financial lease due to the fact that the lease term is more than 75% of the economic life of the asset, and the present value of the minimum lease payment exceeds 90% of the fair value of the leased property. The last test is whether the contract includes the clause that gives the government an option to purchase the property at a cost lower than fair value. Classification as a finance lease will require the current value of lease payment during the lease term to be recorded in the balance sheet as liability, thereby impacting on budget flexibility. Therefore, the government recommends to classify the contract as operation lease to minimize the impact on the budget.[17]

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14) Article 7-2 in Act on Private Participation in Infrastructure (2005)

15) Based on this principle, 57 percent of PFI lease are defined as financial lease (HM Treasury, 2003).

16) Partnership Victoria Practitioner's Guide (2001)

17) Private Finance Guidance: Defense Industry Advisory Council (2001)

Eurostat, the Statistical Office of the European Communities, suggests that assets involved in public-private partnerships should be defined as non-government assets if the private company takes the construction risk and at least one of either the availability risk or the demand risk. In this case, long term purchase contracts are reported off-balance sheet for government. Construction risk includes events such as late delivery, non-respect of specified standards, additional cost, technical deficiency, and external negative effects. Availability risk covers the cases when private company fails to satisfy the agreed volume and service quality. Demand risk is defined as the change in service demand caused by the business cycle, market trends, competition or technological obsolescence.[18]

Generally the risk that the government bears varies with long term service purchase contracts such as BTL projects. Therefore, simply defining all long term service purchase contracts as financial lease (government asset) or operating lease (private company asset) can defer optimal risk allocation between the government and private company, which makes it difficult to get value for money. However, there is no internationally accepted principle how to account for long term service purchase contracts. Thus, as an interim process, to develop a clear accounting standard for BTL transaction, then it leads to disclose the government obligations that affect the budget flexibility in the future.[19] Eurostat or Australian accounting Standard can be used because their rules are relatively simple and easy to apply.

In addition, publishing forecasts of the committed expenditure under BTL contracts can be considered for better understanding the effect of BTL on future budget. In the UK, the treasury regularly reports estimated payment under PFI contracts to monitor the effect of signed PFI deals on the budget.

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[18] Based on Eurostat (2004)

[19] IMF (2004) recommends that the stream of future contract payment under existing PPP should be reported.

Moreover, to set up a BTL payment allowance rule or ceiling as a fraction of total budget can be deliberated. Then, the Korean government may effectively manage the expected payment for signed BTL contracts under the Medium-Term Expenditure Framework (MTEF).[20]

[20] Annual PFI payment is expected to stabilize at around 11 percent of total public investment (IMF, 2004).

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