Abstract
This paper reviews the current status of the Philippine BOT programme since its inception and examines the various challenges it faces as the government deals with the Asian financial crisis which started in mid-1997. Written from the point of view of a construction contractor, the paper seeks to assess the viability of participating in the BOT projects in the Philippines in the current economic climate. The paper starts by introducing, briefly, the present situation in the BOT programme in the Philippines. The most significant construction risks that require specific attention are then identified, and each of them is evaluated against the background of the impact of the financial crisis on the Philippine government’s recent initiatives. Next, the factors which have contributed to the success of the BOT programme are discussed. While these relate to the economic, political and social structure of the Philippines, special attention is devoted to recent developments in the economy and their impact on the BOT programme. Key policy directions are offered to contractors seeking to participate in Philippine BOT projects.

Keywords: Build-Operate-Transfer (BOT), infrastructure, Philippines, economic crisis, success factors, strategies

1 Introduction

President Corazon Aquino signed Administrative Order No. 105 in 1989 to create the Co-ordinating Council of the Philippines Assistance Program (CCPAP). The main tasks of the CCPAP are to facilitate mobilisation and administration of funds generated by the Philippine Assistance Program (PAP) and ensure its successful implementation [1]. The PAP was formed by 19 countries and eight multi-lateral organisations to assist the Philippines in its economic development efforts. At that time, the country’s development effort was crippled by poor infrastructure, especially in the power sector.

The original BOT law, also known as Republic Act 6957, was signed by President Aquino in 1987. It was later amended by Republic Act 7718. The BOT Law was considered to be “…the single, biggest catalyst of the Philippine economic miracle” [2]. The BOT approach was embraced by the Philippine government to finance much-needed infrastructure projects that could not be implemented due to the country’s huge foreign debt. Private investors were invited to participate in services or operations traditionally handled by the public sector [3]. In 1988, the government’s electric utility, the National Power Corporation (NPC), signed its first BOT contract with Hopewell Energy Management Ltd of Hong Kong for the construction of two 110-MW turbine power plants in Luzon which became operational in 1989 [4].
When President Fidel Ramos took office in 1992, he pursued vigorously the building of infrastructure to invigorate the sagging economy. In September 1993, he issued Memorandum Order No. 166 designating the CCPAP Chairman as Action Officer for the BOT Programme and subsequently tasked the CCPAP Secretariat to establish a BOT Centre [1]. This centre ensured a more focused promotion of the BOT Program – also known as the Philippine Infrastructure Privatization Program (PIPP).

Some 80 major development projects costing nearly US$23 billion have been proposed since the passage of the BOT Law. By December 1997, 45 BOT projects had been approved since 1992. Of these, 25 projects were completed, ten were on-going and the rest were at the bidding and negotiation stage. The majority were in the power and energy sector [3]. There has been a recent surge in activity in the sector. Seven projects under the BOT programme costing US$9.39 billion were completed during the first six months of 1997 [5]. The Philippine National Oil Corporation’s (PNOC’s) Leyte and Mindanao Geothermal Power Plants, which have a combined cost of US$319 million started commercial operations in June 1997, adding 247 megawatts of power. A diesel power plant in General Santos City and a 1200-MW natural gas project in Batangas were awarded during the period.

BOT projects in the Philippines are not confined to the power and energy sector. The contracts for two light rail lines under the BOT scheme have been awarded and are scheduled to be completed in January 1999 and 2001 respectively. The Department of Public Works and Highways awarded the construction and operation of the South Luzon Expressway in a US$73 million BOT contract. The long-awaited international passenger terminal has been awarded to the Philippine International Air Terminal Co. Inc. (PIATCO) for US$500 million. Through the BOT arrangement, private financing is also being secured to upgrade water transport services, port facilities and other sectors of the maritime industry.

1.1 The paper
This paper discusses aspects of the BOT programme in the Philippines. It analyses published materials to ascertain how the programme has fared in recent years, and the factors which have contributed to its success.

In the economic atmosphere prevailing in South-East Asia since mid-1997, in many countries in the region, most major construction projects, including vital infrastructure, have been scaled back, rescheduled or shelved. First, the risks involved in BOT projects are briefly considered, and the measures adopted in the Philippines to address each of the risks discussed. Second, the factors which contributed to the relative success of the BOT programme are highlighted. This is followed by a consideration of the elements of a strategy for contractors seeking to participate in the BOT programme in the Philippines.

2 Evaluating BOT construction risks
The current financial turmoil in Asia further highlighted the inherent risks in construction projects, especially those procured on a BOT basis. The construction contract concluded between the BOT project sponsor and the contractor is similar in structure to contracts in traditional projects, the contractor in this case frequently being a consortium of companies [8]. Records of BOT projects undertaken by contractors everywhere reveal a higher proportion of failures than successes caused by either a lack of, or inadequate, risk assessment. As a result, BOT projects are not proliferating in the developing economies as much as the promise this alternate procurement method holds [7].
2.1 Legal risks
Lack of regulatory framework in some countries usually makes the development period of a BOT scheme unnecessarily long, and costs relatively high [7]. The investors in a BOT project may have to deal with different authorities, go through a complex series of negotiations, and still not be sure whether their investment will yield a reasonable rate of return. Several risks affect the concession company (in the form of property lease and ownership of assets) and the project lenders (by way of enforceability of security, breach of financial documents, etc.). Legal risks are often brought about by changes in host government regulations which may bear on the project’s success.

The contract structure allocates risk between the concession company and the contractor in different ways which broadly define the scope of responsibility for performance in time, quality and the bearing of costs should the unexpected occur [8].

According to the director of the Philippine National Economic Development Authority (NEDA) Public Investment Staff, the government is revising the BOT guidelines to attract more investors [3]. The revisions will widen the set of guarantees and subsidies for private participants in BOT projects to compensate for certain risks which investors would assume in undertaking such projects.

2.2 Political risks
The possible types of political risks in the national as well as regional setting include: sequestration; changes in laws and taxation levels; adverse government action or inaction; political force majeure; and termination of concessions by governments [21]. Moreover, in a developing country, a BOT project financed by foreign investors can become the victim of a struggle between local political groups [7].

As discussed below, the government has provided sterling leadership to the BOT programme. The programme also enjoys the support of the Filipino people. A new President was elected in the Philippines in May 1998. President Joseph Estrada has promised to continue the successful BOT programme and to pursue stabilisation policies and structural reform measures [9]. However, there remains a lingering doubt about his commitment to the programme. The new government may institute legislation, interfere with the BOT projects or take actions that could ruin the viability or attractiveness of both on-going and forthcoming projects. So far, none of these fears have materialised.

2.3 Finance Risks
Among the main factors influencing the ultimate success or failure of the BOT concept is the ability to arrange financing [10]. Thus, the key factor in the analysis and evaluation of the BOT concept for structuring projects is the financing element [10]. The main finance risks that must be addressed are inflation risk and interest rate risk, especially if the proposed project’s cash flow will be in the host country’s currency. The BOT approach, by itself, does not offer new mechanisms for obtaining or structuring financing. Thus, some countries which implemented the BOT scheme have not been successful. A solution to part of the problem when the project cash flow is in local currency is for the pricing of the product or service to be tied to the fluctuation between the host country’s currency and the currency in which the financing is extended [21].

In the Philippines, several BOT projects have moved ahead in the power sector. In those projects, the power purchase agreement is payable in US dollars by NPC whose performance is guaranteed by the government [10]. Thus, there is sovereign liability in effect for convertibility, reducing or totally getting rid of exchange risk.
The Philippine government is exploring ways of unbundling risks and refining its guarantee policy as it seeks greater private sector participation in infrastructure [11]. The revised BOT guidelines which were finalised in March 1997 provides guarantees that include cost sharing, provision of fiscal incentives and other credit enhancements such as take-or-pay arrangements which cover market risks. Other core guarantees include coverage of foreign exchange risks and ‘force majeure’ risks. The government is also set to provide non-core guarantees which would be agreed upon between the government and the contractor during the negotiation period for the project [3].

Representatives from the private sector had asked for continued government guarantees for areas that are not as developed as the power and energy sector, such as water and transportation. The government has announced that it has begun to price such guarantees and reckon them more explicitly in the fiscal and balance of payments management. Bidders of future BOT projects will be requested to submit bids with or without the government guarantees “to obtain a measure of the value of such guarantees to the private sector” [11].

### 2.4 Construction Completion Risks

Keeping to the work schedule is of special significance in BOT projects as the beginning of operation provides the company with the possibility of repaying loans and equity from operation proceeds [6]. The risks of construction completion delay which affect BOT contractors directly are generally caused by default of the concession company or variations in work scope (see Figure 1).

Delays not caused by contractors in traditional projects are almost always addressed through variation orders or the granting of extension of time for completion to the contractor. This is not always true for BOT projects, unless there are allocations for extra time in the project schedule, and reserve funds are set aside for additional works. Existing complexities in obtaining project financing under BOT projects make it difficult to obtain additional funds to pay for reasonable construction delays or acceleration bonuses to make up for the time lost.

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Figure 1: Construction Completion Risks
Delays due to the contractor’s fault usually require payment of liquidated damages under both traditional and BOT projects. Some particular difficulties may arise on the latter. For example, on a power project, in order to establish a contractor’s liability to pay liquidated damages, the date of completion and hand-over should be fixed as the date of “mechanical completion.” Mechanical completion occurs when the plant is physically completed and, although individual parts of the plant may have been commissioned, it takes place before the performance tests for the whole plant have been passed [8]. The significance of mutual agreement on the definition of “mechanical completion” can be illustrated by a recent case at Gordon Wu’s Pagbilao coal-fired power plant project in the Philippines. In that project, Hopewell Power Philippines and NPC had different interpretations of the definition of “completion.” Hopewell insisted that the project was completed when the two coal-fired generators were finished. However, NPC argued that “completion” means that the electro-mechanical equipment is in place and ready to generate power. Hopewell, according to NPC, had only done a simulated synchronisation test [12].

The success factors of the BOT programme in the Philippines are now discussed.

### 3 Synthesis: Success factors of the Philippine BOT programme

#### 3.1 Need for infrastructure

The infrastructure needs of the countries in Southeast Asia are great. Some US$332 billion worth of infrastructure projects were either awarded or tendered out between 1991 and 1996 in Indonesia, Thailand, Malaysia, Singapore and Taiwan. According to studies by NEDA, the entry of more investors from the private sector participating in BOT projects would fuel a more sustained long-term growth for the Philippines [3].

After having successfully secured BOT investments in the energy sector which solved the power crisis in 1993, the government directed its efforts to other areas. Hence the award of BOT contracts for projects such as the Ninoy Aquino International Airport expansion, mass transit system in Metro Manila, multi-purpose dams (such as the San Roque Dam Project) and the passport processing and civil registry. The CCPAP recently noted the concerns raised by investors about the poor transportation and telecommunications infrastructure which would be the next priority areas for BOT projects [13]. The government has set a target of procuring some P1.3 trillion (US$50 billion) investments in the BOT programme between 1998 and 2004 [3].

#### 3.2 Government leadership and people’s support

The government’s leadership has been decisive. Infrastructure projects which took several years to complete took a shorter period through the flagship project scheme and the BOT programme implemented by the Ramos administration [14]. In 1997, some 200 European companies signified their interest to participate in the various planned infrastructure projects in the Philippines estimated to cost approximately US$15 billion [11].

The World Bank remarked that the Philippines has largely benefited from the combination of: (i) rapid integration in global trade and capital flows; (ii) sound macroeconomic policies, and (iii) private-sector participation during the Ramos administration [14]. The Bank also commented that it takes the “leadership” of the state to orient private capital toward the most socially-desirable investments and to co-ordinate their design and implementation by calibrating incentives and regulating activities. Building this new state in the Philippines is perhaps one of the most important tasks ahead – a state that is leaner, smarter and more discriminating in its interventions.
The support of the majority of the Filipino population has also contributed to the success of the BOT programme. In the Philippines, structural reforms enjoy broad political support because they have been effective in avoiding cycles of boom and bust, creating jobs, increasing incomes, reducing inflation and broadening choices for consumers [16].

3.3 Economic performance

For a BOT project, long-term economic development in the host country is essential because the repayment of capital for projects will outpace the ability to pay unless significant economic development occurs in the host country.

It is instructive to review how the Philippines has coped with the economic crisis which has engulfed the region. The country’s recent economic performance has been commendable [16]. Real GNP growth rose progressively from 1992 to 1996, reaching 6.9% in 1996. In the first three quarters of 1997, real GNP grew by 6.0% despite higher interest rates and volatile exchange rates brought about by the Asian currency turmoil. Exports and investments were the driving force of the economic expansion. Merchandise exports in US dollars terms grew by 23% in the first three quarters of 1997, the highest in Asia outside China. Investments grew by 10.3% in the first three quarters of 1997 an improvement over the 8.6% average growth experienced between 1992 and 1996.

Economic growth has had a positive impact on the social sector. Unemployment was trimmed from 9.9% in 1992 to 8.6% in 1996 and the basic literacy rate has been raised from 93.5% in 1992 to an estimated 95.3% in 1996. The country’s debt ratios improved significantly, dropping consistently since 1992.

Tan [22] summarised the causes of the Asian economic crisis as:

… foreign, unhedged short-term borrowing; domestic over-geared corporations; pegged exchange rates; weak, somewhat corrupt and poorly-supervised financial institutions; over-hasty financial liberalisation; initial policy mistakes; panic, contagion and absence of a real international lender of last result …

Tan [22] admonishes Asian leaders to recognise that the triple asset deflation in property, stock and currencies cannot be reversed easily; their financial institutions have been severely crippled; there is extensive excess capacity in several sectors; the economies are in a depression which will last three to five years; and their exchange rates are likely to remain volatile for some time.

The Philippines was caught in the maelstrom of volatile financial markets in the region. However, there are key differences between the Philippines and other Asian countries (as highlighted by Tan, 1998) which have made it one of the countries in the region least affected by the crisis. These include the following [16]:

- Philippine banks remain financially strong;
- the real estate remains a financially sustainable industry, with no sign of overbuilding since housing rentals continue to rise by about 7% nation-wide and by 10% in the capital region (higher than the 5% inflation rate). The housing backlog remains large and there are also shortages of industrial space; and
- the Philippines consciously shifted to reliance on direct investments rather than portfolio investments and on long-term loans rather than short-term borrowings.

The Risk Consultancy (PERC) ranked the Philippines among the top nations on its response to the economic crisis, behind Singapore, Hong Kong, Taiwan and China [20].
The Asian Development Bank (ADB) noted that although growth will slow down during the next year or so, with responsive economic management, the Philippines should emerge stronger from the currency adjustment [17]. The government has just outlined the key medium-term development strategies to address the country’s challenges, and the ADB supports this programme. In infrastructure development, the primary emphasis of the Bank will be to assist in the privatisation programme, focusing on creating an enabling environment for greater private sector participation, and promoting the efficiency of public-sector entities engaged in the provision of infrastructure.

Unfortunately, the economic crisis in the region has finally caught up with the Philippines via the “contagion effect”. In early 1998, both economic growth and employment figures have been less than encouraging. Despite these difficulties, the government of the Philippines has reaffirmed its commitment to long-term structural reforms including the privatisation programme. It will also pursue further investment liberalisation to ensure more competition in domestic industries. Anti-poverty programmes will be intensified to broaden the participation of the poorer citizens in the development process. Financial sector reforms will also be deepened to encourage and mobilise more domestic savings, enhance competition and diversify the types of financial services and products available. Finally, labour market and education policy improvement will be pursued to ensure high labour quality and enhance skills and technological know-how.

3.4 Cultural harmony
The key resource of the Philippines is its resilient and trainable people [18]. Because of the Filipinos’ culture of patience and their problem-solving attitude, conflicts between contractors and financiers, consultants and the owner, or simply among workers have been either reduced or eliminated. Over 95% of Filipinos can communicate in English.

4 Strategies for contractors interested in the Philippine BOT programme

Certain risks in a BOT project must be assumed by appropriate parties if the project is to proceed. Howell and Wynee generally classify BOT risks as political, commercial and ‘force’.

Howell and Wynee identify three types of construction risks: the risk that the project will not be completed within the estimated cost which was the basis for payments in the PPA; the risks that the project will not be completed according to the schedule set forth in the PPA or not at all; and the risk that the completed project will not be able to meet its performance guarantees as established in the PPA. They highlighted some key issues which warrant on-going monitoring and attention by contractors active in the international market [19]. They suggest that all BOT participants must identify viable projects quickly. Screening tools must be developed to effectively answer basic questions about a project such as:
* Does the government support this project and will it offer sovereign guarantees?
* Will the sponsors of the project have to compete for a contract? If so, with whom?
* Are the construction contract terms being offered acceptable?
* What is the time frame for development?
* Is the design proven and has the contractor built one before?
* Is there an existing PPA or other security package agreement?
* What are the government’s and developer’s track records?
* What risks will the EPC contractor and developer have to absorb?
* Who will finance the project and what are the likely terms available?
* Does the contractor or developer have an existing relationship with the government?
Given the government’s track record in managing a BOT programme, it would appear that contractors can reasonably assume that an approved project will have a relatively low level of risk. Thus, they should concentrate on the project sponsor. From the contractor’s standpoint, it would seem most desirable to promote BOT projects in the Philippines through consortia including investors and operating companies with the contractor making its contribution through its contracting capabilities [10].

BOT has not yet lived up to expectations for financing infrastructure in developing countries such as those in Southeast Asia because those promoting BOT fail to adequately anticipate basic financing considerations. Infrastructure projects generate local currency, but are largely funded with foreign funds. The ability to convert the project revenue stream to such foreign currency is critical to the success of a BOT project. Yet, only the host country can provide the necessary assurances in most cases. As discussed above, strong support at the highest levels of government, and efforts to address the concerns of investors have been key aspects of the Philippine BOT programme.

5 Conclusion

The Philippines has coped better with the Asian economic crisis than several other countries in the region thus far [9]. Moreover, the practices of the government, such as improved transparency and governance, were recognised by the international community as distinguishing the Philippines from other countries in the region. In response to the crisis, the Philippine government has committed itself to further strengthen its economic fundamentals to temper the inflationary impact of the currency crisis.

With active high-level government support, the BOT law has helped solve the electric power crisis of 1990, following major BOT investments in power plants “at no cost to the Filipino people”, while “pole-vaulting [the Philippines] into the 21st century” [2]. The government has sought to address the concerns of parties involved in BOT projects, especially in the light of the economic crisis. The analysis in this paper serves two purposes. First, it should help the management of a contractor to decide the best and most competitive strategy to pursue for BOT projects in the Philippines. Second, it demonstrates to governments how they can appropriately address the needs of investors on the BOT projects even during difficult economic times. This is important as these projects are vital to the socio-economic growth and development of most countries.
6 References