EVALUATION AND MANAGEMENT OF POLITICAL RISKS IN CHINA'S BOT PROJECTS

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ABSTRACT: The potential slowdown of the economic growth in China has led the government to increase spending in basic infrastructure such as roads, ports, and power generation facilities. There are opportunities in the infrastructure sectors for foreign investors. It is important however to identify and manage the unique or critical risks associated with investments in China's infrastructure projects. Such issues have received special attention with the closure of the Guangdong International Trust and Investment Corporation in 1998 and the subsequent confusion over government support and guarantees. This paper is based on the findings from an international survey on risk management of build-operate-transfer (BOT) projects in developing countries, with emphasis on infrastructure projects in China. It discusses specifically the criticality of the political and force majeure risks. Based on the survey, the following critical risks, in descending order of criticality, are identified: Chinese Parties' reliability and creditworthiness, change in law, force majeure, delay in approval, expropriation, and corruption. The measures for mitigating each of these risks are also discussed.

INTRODUCTION

Background

The potential slowdown of the economic growth in China has led the government to increase its budgeted spending for basic infrastructure such as roads, ports, and power generation facilities. The World Bank has estimated that China's expenditures in infrastructure will rank the highest among all East Asian countries and is expected to account for U.S.$750 billion over the period of 1995–2004. Road and power projects command top priority. For example, China plans to boost the total installed capacity of electrical power by 90 GW (i.e., 40% of current total installed capacity). This requires a total investment of U.S.$100 billion, of which about 25% will come from foreign capital investment [Baker & McKenzie (B&M) 1996]. To meet the development needs, the Chinese government has introduced new policies in granting concessions to attract foreign investment. Several state-approved pilot build-operate-transfer (BOT) projects have been awarded since late 1996, such as the Laibin B Power Plant (Laibin B), Shanghai Da Chang water project, Changsha power project, and Chengdu water project, and there will be more in the near future (Hsu 1996; Project 1997).

Despite the opportunities, undertaking infrastructure business in China presents its risks and obstacles. The closure of the Guangdong International Trust and Investment Corporation will cause foreign creditors to become more cautious toward Chinese borrowers, and they might no longer assume an implicit sovereign guarantee. The traditional methods of project finance and risk allocation mechanisms that are available in other countries generally do not yet exist in China or are restricted. The effective application of risk management principles to projects is especially crucial to successful investment in China, and risk strategies have to be incorporated much earlier in the development of their projects (Tiong 1992, 1995; Zhang et al. 1998). In addition, new policies, such as competitive tendering process and 100% foreign ownership of the operating company, were introduced in late 1996 when the first state-approved BOT project, Laibin B, was awarded (He 1996; Orr 1997).

Research Objectives and Methodology

The objectives of this paper are as follows:

- To identify the unique or critical political and force majeure risks associated with China's BOT projects
- To evaluate the effectiveness of mitigating measures that are available to manage these risks

The methodology developed for this study includes (1) a comprehensive literature review together with some case studies to identify initial lists of risks associated with BOT projects in different infrastructural sectors and generally available mitigating measures for these risks; (2) unstructured interviews and discussions to filter the risks and measures identified in Step 1; and (3) an international survey to evaluate the criticality of these risks and the effectiveness of corresponding mitigating measures.

The projects studied include the first provincial-approved BOT project in China (i.e., Shajiao B Power Plant in Guangdong Province) and the first state-approved BOT project in China (i.e., Laibin B in Guangxi Province). Other BOT projects in China (e.g., Yan'an Second Tunnel and Da Chang Water Plant in Shanghai, Changsha Power Plant in Hunan Province, Tangshan Power Plant in Hebei Province, etc.) were also referred to (Tiong 1990; Wang et al. 1998, 1999a; Chew 1997; Zhang et al. 1998). The risks associated with BOT projects in different infrastructural sectors were identified and shown in Table 1 (World Bank 1994; B&M 1996; Lam 1997; Macdonald 1997). Table 1 lists the risks associated with BOT projects in different infrastructure sectors.

The interviews and discussions focused on specific subject matter—the unique or critical risks associated with China's BOT projects and corresponding mitigating measures. Participants included the director of business development of Foster Wheeler; 35 construction professionals from Singapore, and the writers, with the second writer as the facilitator and the first writer as an observer taking notes.

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TABLE 1. List of Risks Associated with BOT Projects in Different Infrastructure Sectors

Sector (1)	Sector-specific risk (2)
All sectors	Force majeure risk
	Political risks (change in law and regulation; revoke; expropriation)
	Financial risks (inflation; interest rate; exchange rate and convertibility)
	Competition risk
	Environmental risk (increasing consciousness in society)
	Land acquisition and compensation risk
	Construction risks (cost overrun; delay; quality)
	Operation risk (operator inability; output quantity and quality; production regularity)
	Condition of facility
	Supply risk (shortage; quality)
	Offtake risk (quantity; pay in time)
	Documentation/contractual risk (conflict and arbitration; applied law)
Power	Repayment of external debt
	Restriction on imported equipment and raw materials
	Fluctuating demand of power generated
	Problem in bill collection
	Illegal connection to transmission system (power theft)
	Transmission failure
	Lowered tariffs due to competition
	Specification not being fulfilled, resulting in refusal of power purchase by state utility
	Power plant location (inadequate transport facilities)
	Environmental dispute
	Fluctuation of cost and availability of fuel/coal
	Construction delay
	Prolonged downtime during operation
	Liquidated damages or termination of Power Purchase Agreement (output and quality do not meet off-taker's requirement)
	Government's restrictions on profitability (rate of return) and tariff levels
Transport (road)	Inadequate traffic volume (inadequate traffic forecasts or subsequent deviation)
	Competing routes (particularly free or underpriced ones)
	Restrictions on toll level and increase
	Cost overruns (because of size and scope, particularly if project crosses a hilly region)
	Construction delays (land acquisition; unexpected technical difficulty)
	Long land acquisition period
	Right-of-way disputes (e.g., archaeological mines)
	Necessitating measures to minimize the impact of construction on traveling public
	Delay in other projects connecting to this road
	Income streams are usually in local currency (exchange rate and convertibility risk)
Transport (tunnel and bridge)	Geological risks for immersed tunnel
	Safety at work and disturbances to surface traffic in municipal areas
	Health risks of compressed air
	Stability of seabed for submerged tunnel
	Traffic accidents and fire breakouts for tunnels during operation
	Restrictions to harbor navigation and air traffic flight path for bridge
	Hydrological opposition from ferry workers and fishermen
	Bad weather conditions
	Competition from ferries and airlines
Transport (rail)	Long land acquisition period
	Complex relocation of existing utilities
	Uncoordinated attempt in various districts
	Controlled fare levels
	Complexity of getting design approvals
	Competition from road transportation
	Environmental dispute
	Taxation
	Expensive rolling stock and control systems
Transport (airport and port)	Competition from other airports
	Regional or international trade prosperity
	Tourism business prosperity
	Political stability and spending pattern
	Integration with other connecting facilities
	Inadequate adjoining land for expansion
	Throughput capacity affected by breakdown of equipment, labor disputes, and extreme weather conditions for port
	Economic and trade conditions
	Changes in tariff regulations and quotas
	Political risk
Process plant	Take-or-pay agreement with gas producer
	Leakage of pipe
	Nonpayment and pilferage
	Controlled tariffs
	Fast changing environmental regulations for waste treatment (rising concerns and advancing technology making improvements possible)
Telecommunication	Most competitive sector
	High research and development costs
	Restrictions by incumbent operator for new entrants to access to established network
	Addition cost and problem in integrating with existing network including technological incompatibility
	Bureaucracy in licensing

The risks identified are categorized into two groups: (1) political and force majeure risks; and (2) foreign exchange and revenue risks. The subject of this paper is on political and force majeure risks, which include Chinese parties' reliability and credit worthiness, changes in law, force majeure, delay in approval, expropriation, and corruption as shown in Table 2.

Based on Table 2, a comprehensive questionnaire for international survey was then designed. There were three parts: Question 1 on criticality of risks; Question 2 on effectiveness of the proposed mitigating measures for the risks; and Question 3 on adequacy of related clauses in Laibin B contracts. The rating systems for the criticality of each of the risks and

TABLE 2. Unique/Critical Political and Force Majeure Risks and Mitigating Measures

Risk (1)	Measure 1 (2)	Measure 2 (3)	Measure 3 (4)	Measure 4 (5)
Change in law	Obtain government's guarantees (e.g., adjust tariff or extend concession period)	Insurance for political risk	Maintain good relationship with government authorities, especially officers at state or provincial level	—
Corruption	Maintain good relationship with government authorities, especially officers at state or provincial level	Establish JV with local partners, especially central government agency or state-owned enterprise	Enter into contract to prevent corruption	—
Delay in approval	Establish JV with local partners, especially central government agencies or state-owned enterprises	Obtain government's guarantees to adjust tariff or extend concession	Maintain good relationship with governments	Ask government to establish one-stop agency for all approvals
Expropriation	Establish JV with local partners, especially central government agency or state-owned enterprise	Relay on a combination of international consortium and insurance policies (political insurance)	Obtain support of sponsor's government (e.g., export credit)	—
Reliability and creditworthiness of Chinese entities	Gain accurate information (e.g., financial, etc.) about Chinese entities and choose most capable ones	Maintain good relationship with government officers at state or provincial level	Appoint independent accountant to audit the Chinese entities	—
Force majeure	Obtain government's guarantees to adjust tariff or extend concession period	Insure all insurable force majeure risks	Obtain government's guarantee to provide financial help if needed	—

TABLE 3. Rating Systems for Criticality of Risks and Effectiveness of Mitigating Measures

Rating score (1)	Criticality of unique or critical risks (2)	Effectiveness of mitigating measure (3)
0	Not applicable	Not applicable
1	Not critical	Not effective
2	Fairly critical	Fairly effective
3	Critical	Effective
4	Very critical	Very effective
5	Extremely critical	Extremely effective

the effectiveness of generally available measures for mitigating these risks are shown in Table 3.

Respondents' Particulars

The international survey was conducted from December 1997 to March 1998. Questionnaires were sent by mail to international project sponsors, developers, consultants, lawyers, lenders, investors, and contractors. A total of 40 valid responses was received, which accounts for a response rate of about 13.3%. Although the response rate was a little low, the reliability of survey results is high because all of the respondents are at the top management level in their companies. More importantly, most (75%) of the respondents have experiences involving international BOT projects, almost all (88%) of them have business experiences in China, and more than half (60%) of them have been involved directly in BOT projects in China. The detailed respondents' particulars have been reported in Wang et al. (1999b).

DEFINITION OF POLITICAL AND FORCE MAJEURE RISKS

Political risk describes the risk of government actions that may endanger a project. Actions can occur at the central, provincial, and local levels of government. More specifically, primary political risks include change in law, corruption, delay in approval, expropriation, and reliability and creditworthiness of Chinese entities (Chinese entities' reliability). Force majeure risk describes the circumstances beyond the project developer's and government's control, such as natural disasters, wars, hostilities, embargoes, and import or export restrictions. The details are discussed in the following section.

Change in Law Risk

Change in law risk includes changes in government policies with respect to laws and regulations, methods to address inflation, currency conversion, rates and methods of taxation, and the method by which electricity tariffs are set and approved. It includes (1) the adoption, promulgation, modification, or reinterpretation after the signature date of the concession agreement (CA) by any governmental authority of any laws of the host country; and (2) the imposition by a governmental authority of any material condition in connection with the issuance, renewal, or modification of any approval after the date of signature of the CA that in either case establishes requirements for the construction, operation, or maintenance of the BOT project that render the performance by the project developer according to its terms illegal.

Corruption Risk

Corruption is based on using political, legal, or regulatory leverage to extract additional costs for which no one will ever admit and the project developer can never recoup. It occurs when the government's officials and representatives solicit or receive an unlawful consideration or commission or exert or utilize any unlawful influence in connection with awarding and agreement to the project developer. Corruption is regarded by many companies as an unavoidable fact of life on projects in developing countries including China. This presents the risk of either spending too much money on corrupt officials or spending money in the wrong places or at the wrong times—all at the risk of having a government agency turn against the project developer and the project (Macdonald 1997).

Delay in Approval Risk

Delay in approval risk means that the central or local government authority does not approve the project-related issues in time or even cancels the already approved ones. Obtaining approvals for a project from a complex web of government agencies and departments, from municipal to provincial to central government levels, can be an extremely time-consuming

TABLE 4. Criticality of Political and Force Majeure Risks

Risks of BOT power projects in China (1)	Survey Respondents (%)						Criticality index (8)	Mean score (9)	Ranking (10)
	Extremely critical (2)	Very critical (3)	Critical (4)	Fairly critical (5)	Not critical (6)	Not applicable (7)			
Chinese entities' reliability	52	33	15	0	0	0	0.87	4.36	1
Change in law	52	36	6	6	0	0	0.87	4.33	2
Force majeure	34	34	22	9	0	0	0.79	3.94	3
Delay in approval	24	30	36	9	0	0	0.74	3.70	4
Expropriation	44	13	19	13	13	0	0.73	3.62	5
Corruption	9	18	38	18	9	9	0.55	2.74	6

process, delaying entire projects and hurting their financial viability. The Chinese central government [i.e., the State Planning Commission (SPC), which must approve any infrastructure above U.S.$30,000,000 investment] is slow in its review process.

Expropriation Risk

Expropriation risk occurs when the government expropriates the project without giving reasonable compensation to the project developer and investor, etc. The expropriation can take the form of nationalization of a facility wholesale (rare) or ''creeping'' expropriation whereby the government changes regulations, taxes, or tariffs after a project is complete to gradually take over the facility and its operating profits (common).

Chinese Entities' Reliability Risk

For a BOT project, many Chinese entities such as partners, contractors, customers, suppliers, operators, guarantors, lenders, and others, who are parties to agreements with foreign parties, will be involved. The success of a project will hence rely on the reliability and creditworthiness of these Chinese entities. Although it is said that these counterparties have the ability and willingness to perform their obligations, the reliability and creditworthiness of Chinese entities are difficult to ascertain. This results in the Chinese entities' reliability risk.

Force Majeure Risk

As mentioned above, force majeure is the circumstances beyond project developer's or government's control such as natural disasters or accidents (e.g., fires, floods, storms, and earthquakes), wars, hostilities, embargoes, and import and export restrictions. Based on Laibin B's CA, the China government shall not consider any of the following circumstances to be an event of force majeure: (1) The expropriation, requisition, confiscation, or nationalization of the power plant by government authority; (2) the imposition of any blockade, embargo, import restrictions, rationing, or allocation by government authority; (3) the cancellation of any approval not caused by a breach of the CA or of any project contracts by the project developer; and (4) a change in law. The circumstances in Item 1 are already defined as expropriation risk, those in Items 2 and 4 as change in law risk, and those in Item 3 as delay in approval risk. The project developer shall also not consider the following circumstances to be an event of force majeure: (1) Delay in performance by the construction contractor, the operation and maintenance contractor, or any subcontractor to either of them; (2) any delay in the delivery of, or any latent or patent defects in, any materials, equipment machinery, or parts for the power plant; or (3) breakdown or ordinary wear and tear of materials, equipment, machinery, or parts of the power plant.

CRITICALITY OF RISKS

The survey results on the criticality of political and force majeure risks are shown in Table 4. The ''criticality index'' was calculated for each risk using the following formula:

$$\text{Criticality index} = (5n_1 + 4n_2 + 3n_3 + 2n_4 + n_5) / 5(n_1 + n_2 + n_3 + n_4 + n_5)$$

where n_1 = number of respondents who answered ''extremely critical''; n_2 = number of respondents who answered ''very critical''; n_3 = number of respondents who answered ''critical''; n_4 = number of respondents who answered ''fairly critical''; and n_5 = number of respondents who answered ''not critical.'' The risks listed in Table 4 were ranked on the basis of the scores for the indices.

The 35 local construction professionals' ratings for the criticality of risks are illustrated in Fig. 1. It is interesting to note that the ratings of survey respondents (international professionals) and of the local professionals toward the criticality of most of the unique or critical risks are close, with the exception of the corruption risk. The reason for the big difference toward corruption risk 4.50 by local professionals versus 2.74 by international professionals may be due to the wide coverage of corruption scandals in China by the local media and the lack of working experiences in China by local professionals. Hence they rated the criticality of corruption risk highly.

The Chinese entities' reliability and creditworthiness risk is regarded as the most critical risk, with a mean score of 4.36. This may be because the reliability and creditworthiness of Chinese entities are difficult to ascertain. This may cause delays in project approvals and implementation, which ultimately has an impact on the project's cash flows. In most cases, the foreign company, in assessing the reliability and credit standing of counterparties, is relying on financial and other information provided to the company by such parties, and from information and sources publicly available in China.

There is no assurance that this information is accurate or that these counterparties will meet their contractual obligations. The failure of any one of these counterparties to fulfill its obligations could have a substantial negative impact on the project implementation schedule and cash flows. The Guangdong International Trust and Investment Corporation case is the first concrete evidence of the severity of the problems.

The change in law risk is ranked second. This shows that frequent changes in laws and regulations in China is of utmost concern to foreign investors. China is expected to continue its economic reform policies. Many of the reforms are new or experimental and may be refined or changed. The legal system in China is still in its infant stage, and its independence from the ruling government bodies is dubious. Recently, big changes in the central government leadership under President Jiang Zheming and Premier Zhu Rongji are expected to bring about new economic reforms and thereby changes in laws.

Force majeure is ranked as the third critical risk. It exists in every project and especially in a developing country such

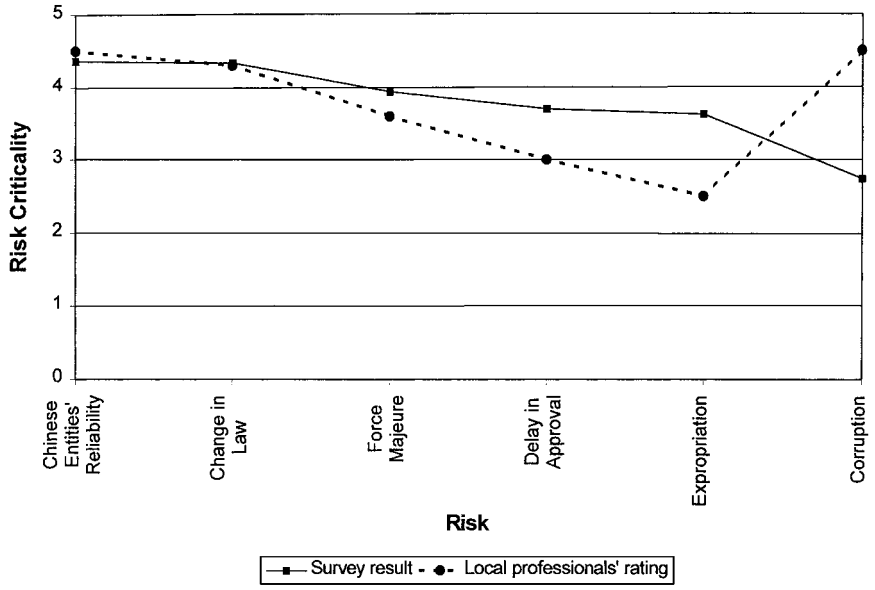

FIG. 1. Criticality of Political and Force Majeure Risks: Responses of Local Professionals versus Survey Respondents

as China, although it is not unique to China's BOT power projects.

Delay in approval risk is regarded as the fourth critical risk, for reasons mentioned earlier: obtaining approvals for a project from a complex web of government agencies and departments, from municipal to provincial to central government levels, can be an extremely time-consuming process, delaying entire project and hurting their financial viability. The situation, however, has improved since China stepped up the BOT scheme and speeded up the approval process. For example, the SPC moved with uncommon speed (within 6 months from tender opening to CA signing) to get the Laibin B documentation in order and to get it off the ground.

It is generally believed that China's infant legal system does not provide foreign companies with sufficient legal protection from government actions that can range from breaches of contract to outright expropriation. Expropriation risk is thus regarded as the fifth critical risk. However, as the standard deviation of respondents' answers is the greatest (1.48) among all risks, the respondents' opinions are dispersed. Some respondents claim that although expropriation risk is very critical, the probability that it will happen is low. China needs to attract foreign investments, and it is not in China's interest to mess things up by creating a hostile environment over the short and medium terms.

Corruption is widespread at all levels of government, especially at lower and medium levels, and is regarded by every foreign and even local company as an unavoidable fact of life on Chinese projects. Hence, it should be a critical risk, and if the project developer does not adopt good mitigating measure, the earnings and profits will be eroded. However, corruption risk is not as critical as other risks. Its mean score (2.74) of criticality differs greatly from the mean score of its preceding critical risk [i.e., expropriation (3.63)]. The reason could be that the foreign companies understood the corrupt situation in China; hence they will bear this risk in mind and set aside additional funds, as contingency cost or business development expenses for this risk during their tendering.

EFFECTIVENESS OF MITIGATING MEASURES

Fig. 2 shows the survey results of effectiveness of the mitigating measures for the political and force majeure risks. It could be seen that most of these measures are regarded as effective or very effective as their mean scores of rating are greater than 3 (effective) or 4 (very effective) while some are fairly effective.

Chinese Entities' Reliability Risk

The most effective measure for mitigating this risk is to gain accurate information (e.g., financial, etc.) about Chinese entities so that the most capable Chinese entities can then be chosen. However, this is difficult in practice; hence its mean score of effectiveness is only 3.27 as shown in Table 5. Appointing an independent accountant to audit the Chinese entities is the next effective measure so that accurate information about Chinese entities can be gained. The measure of maintaining a good relationship with government officers at state or provincial level is ranked third and is regarded fairly effective. Other measures suggested by respondents for this risk include (1) limiting the future equity/land contribution by local partners; (2) seeking the government's direct and indirect support for contracting China entities; (3) obtaining necessary cash-deficiency support from the upperclass government entities; (4) obtaining guarantees and other credit support from reliable and creditworthy entities, such as banks or another government; and (5) obtaining cash-flow support from a reliable and creditworthy entity for the off-take risk.

Change in Law Risk

As shown in Table 6, the most effective mitigating measure for this risk is obtaining government's guarantees via adjusting either the tariff or extending concession period. However, extending the concession period does not always help the project developer with debt; hence, adjusting the tariff will be the best solution. This measure is applicable now as the Chinese government has introduced new policies to encourage infrastructure investments. Under current Chinese BOT law, the Chinese government will allow the developer to extend the period of concession or increase tariff on the project (He 1996). This measure was also incorporated in the state-approved BOT projects in China, such as Laibin B and the Da Chang water project.

Insuring for political risk is the second effective measure for mitigating this risk. One kind of political insurance is offered by the Multilateral Investment Guarantee Agency (MIGA). MIGA policies offer coverage against (1) wars and civil disturbances; (2) expropriation (including creeping ex-

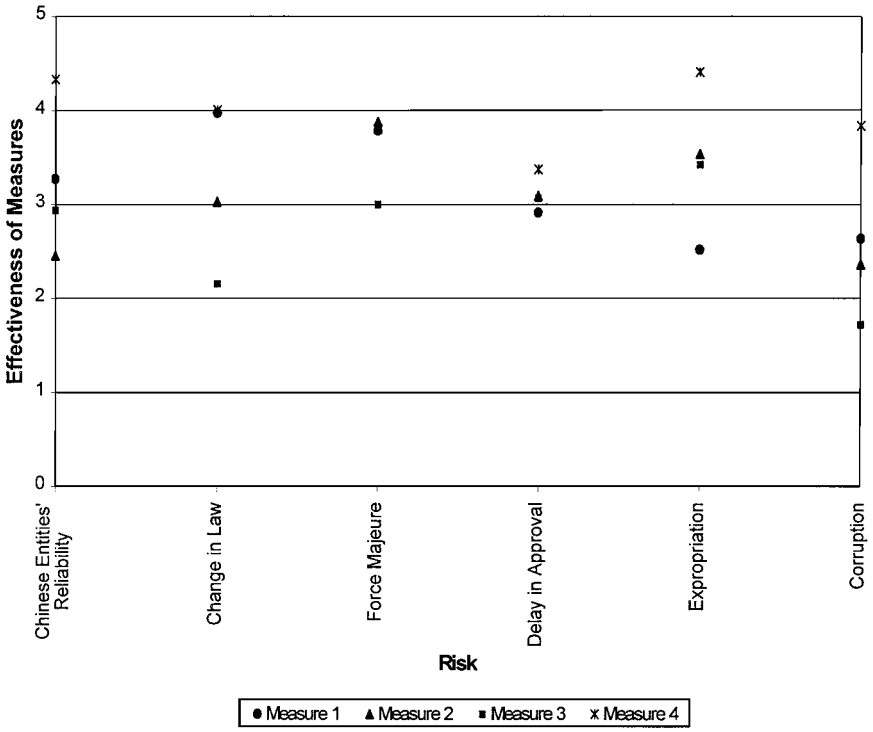

FIG. 2. Effectiveness of Mitigating Measures for Political and Force Majeure Risks

TABLE 5. Effectiveness of Mitigating Measures for Chinese Entities' Reliability Risk

Mitigating measure (1)	Effectiveness: Mean score (2)	Effectiveness: Ranking (3)
Gain accurate financial and other information about Chinese entities and choose most capable ones	3.27	1
Maintain good relationship with government officers at state or provincial level	2.45	3
Appoint independent accountant to audit the Chinese entities	2.94	2

TABLE 6. Effectiveness of Mitigating Measures for Change in Law Risk

Mitigating measure (1)	Effectiveness: Mean score (2)	Effectiveness: Ranking (3)
Obtain government's guarantees (e.g., adjust tariff or extend concession period)	3.97	1
Insurance for political risk	3.03	2
Maintain good relationship with government authorities, especially officers at state or provincial level	2.16	3

propriation; (3) breach of contract by a government agency; and (4) currency transfer problems directly resulting from government actions and law changes. In each case, MIGA insurance pays the net book value of the insured investment, and premiums are significantly lower than similar policies through private insurance companies (Macdonald 1997).

The third but only fairly effective measure is to maintain a good relationship with government authorities, especially officers at the state or provincial level. This will enable the foreign consortium to know the possible change in law as early as possible and take corresponding management actions earlier. The best situation would be that the foreign consortium has some influence over the government's policies.

Some respondents suggested other mitigating measures such as (1) obtaining support from the project developer's home government; (2) having China join international conventions with investment protection; (3) having China issue BOT law in order to enhance due diligence; (4) having China reform its political system, which tends to ensure that new laws are not discriminating; and (5) understanding in depth how the current laws and regulations interact in China.

Force Majeure Risk

The measures of insuring all insurable force majeure events and obtaining government's guarantees to adjust the tariff or extend concession period are both regarded as very effective for mitigating the force majeure risk (Table 7). The first measure is the most effective but may be expensive. Obtaining the government's help in refinancing or with direct finance assistance, if available, is also an effective measure. Other measures suggested by respondents for this risk include (1) defining, if possible, most events that could trigger force majeure; (2) planning effectively to avoid or mitigate force majeure (preparing a backup plan, etc.); (3) preserving fixed project cash flow for all or part of the period of force majeure; and (4) coordinating satisfactorily the force majeure related contract clauses in the Power Purchase Agreement and engineer-

TABLE 7. Effectiveness of Mitigating Measures for Force Majeure Risk

Mitigating measure (1)	Effectiveness: Mean score (2)	Effectiveness: Ranking (3)
Obtain government's guarantees to adjust tariff or extend concession period	3.78	2
Insure all insurable force majeure risks	3.88	1
Obtain government's guarantee to provide finance help if needed	3.00	3

TABLE 8. Effectiveness of Mitigating Measures for Delay in Approval Risk

Mitigating measure (1)	Effectiveness: Mean score (2)	Effectiveness: Ranking (3)
Establish JV with local partners, especially central government agencies or state-owned enterprises	2.91	4
Obtain government's guarantees to adjust tariff or extend concession	3.09	2
Maintain good relationship with government authorities, especially officers at state or provincial level	3.06	3
Ask government to establish one-stop agency for all approvals	3.37	1

ing, procurement, and construction (EPC) and lending documents.

Delay in Approval Risk

As for the delay in approval risk, all measures are regarded as equally effective as all of their mean scores are close to the rating of 3 (effective) as shown in Table 8. Asking the government to establish a one-stop agency for all approvals is the most effective measure for mitigating this risk. However, this is not very applicable at the moment in China, especially for projects at the state level. For a power project, many authorities are involved, and it is difficult for them to cooperate. At the municipal or provincial level, it is sometimes applicable in some cities or provinces [e.g., Shanghai established a one-stop agency for approval of foreign investment when Premier Zhu Rongji was the mayor in the late 1990s]. A similar agency was also established in Suzhou Industrial Park. It is expected that reform in the government's administrative structure and system will take place in a few years, especially after Premier Zhu Rongji comes to power. Reform needs time, and it is not realistic to expect a great change in a short time.

Obtaining government's guarantees to adjust tariff or extend concession, if delay in approval occurs, is regarded as the second effective measure and is also the most practical measure at the moment.

Maintaining a good relationship with government authorities, especially officers at the state or provincial level, is the third effective measure because a foreign consortium will at least know from where (who) and how to get the approvals. Establishing a joint venture (JV) with local partners, particularly the central government agencies or state-owned enterprises, is the fourth effective measure. Establishing JV with local partners is effective because the provincial and municipal governments, compared to the central government, are much more aggressive in pursuing foreign investment and the local economic growth that accompanies it. Furthermore, these partners understand that they cannot receive revenues from the JV partnership until a facility is built and are therefore cooperative in expediting the approval process.

A measure suggested by a respondent is to prepare all necessary reports and a complete feasibility study on time.

Expropriation Risk

As shown in Table 9, relying on a combination of international financing (e.g., Asian Development Bank and International Finance Corporation) and insurance policies (especially political insurance) is regarded as the most effective measure in mitigating expropriation risk, and obtaining support of the project developer's home government (e.g., export credit agency) is regarded as the next most effective. By involving investors, international financial institutions, and foreign government aid agencies from as many countries as possible in a project financing, the Chinese government's expropriation and other actions that may jeopardize the project will produce a backlash from the international investment community against the government itself, in the form of reduced credit ratings or overall increases in the cost of capital to China. With the backing of the project developer's home government and international investors and institutions, such as the U.S.'s Overseas Private Investment Corporation and various national export credits agencies, a foreign developer can impress upon the Chinese government that acting rashly against a project will have negative ramifications on the country's credibility, thus damaging its ability to finance further infrastructure and economic growth (Macdonald 1997). Establishing JV with local partners is also another, but only fairly, effective measure for the expropriation risk for its mean score (2.52) is between the ratings of 2 (fairly effective) and 3 (effective).

Other measures suggested by respondents for this risk include (1) obtaining the government's monetary compensation in the case of expropriation; (2) ensuring that the project was properly obtained and has all relevant approvals; and (3) having political risk insurance that stipulates clearly the coverage for expropriation.

Corruption Risk

As shown in Table 10, all measures for this risk are not very effective as their mean scores are less than the rating of 3 (effective). Nevertheless, among these measures the most effective one is to maintain a good relationship with government authorities, especially officers at the state or provincial level, as a foreign consortium can approach these officers for help if corruption of government authorities exists under their jurisdiction. The problem is that the foreign consortium can do nothing if these officers are corrupt themselves.

Establishing a JV with local partners, especially the central government agency or state-owned enterprise, is the second effective measure. The JV structure has the advantage of giving the Chinese government a direct interest in the project. This can help in influencing the project approval process as well as to shelter the project from political risks. The central government agency or state-owned enterprise that has the most

TABLE 9. Effectiveness of Mitigating Measures for Expropriation Risk

Mitigating measure (1)	Effectiveness: Mean score (2)	Effectiveness: Ranking (3)
Establish JV with local partners, especially central government agency or state-owned enterprise	2.52	3
Rely on combination of international consortium and insurance policies (political insurance)	3.53	1
Obtain support of sponsor's home government (e.g., export credit agency)	3.42	2

TABLE 10. Effectiveness of Mitigating Measures for Corruption Risk

Mitigating measure (1)	Effectiveness: Mean score (2)	Effectiveness: Ranking (3)
Maintain good relationship with government authorities, especially officers at state or provincial level	2.64	1
Establish JV with local partners, especially central government agency or state-owned enterprise	2.36	2
Enter into contract to prevent corruption	1.72	3

TABLE 11. Other Political and Force Majeure Risks and Their Mitigating Measures

Risk (1)	Criticality (2)	Mitigating measure 1 (3)	Mitigating measure 2 (4)
Legal—lack of transparency, ineffective securities, land title, etc.	4	Get project developer's home governments to influence Chinese government in various forum (effectiveness score: 2)	Having China reform land title and security laws (effectiveness score: 5)
Legal—control of participating entities and judiciary	4	Adopt international arbitration (effectiveness score: 3)	Adopt independent judiciary and ''rule of law'' system (effectiveness score: 4)
Import equipment	4	Enter into agreement with government agency or state-owned enterprise to reduce or exempt import formalities (effectiveness score: 3)	Maintain good relationship with government agency or state-owned enterprises to ensure imports are allowed to clear customs quickly (effectiveness score: 3)
Utility (power and water, etc.)	4	Ensure government agency or state-owned enterprise guarantees supplies to project and penalty for failure to supply (effectiveness score: 4)	Maintain good relationship with government agency or state-owned enterprise (effectiveness score: 2)
Permit	5	Enter into JV with government agency or state-owned enterprise (effectiveness score: 5)	Adjust tariff for delay in securing period (effectiveness score: 4)

to gain or lose in a project is the most valuable ally. With sufficient clout, it can help greatly in dealing with corruption at lower and middle levels including the military.

Foreign ownership is perhaps the most controversial element of the new regulations in Laibin B. Until 1996, foreign participants entered most infrastructure projects through JV agreements. The laws in this area are well tested after more than 20 years of experience. This is the legal regime under which direct foreign investment has poured into the country's manufacturing sector since the 1980s. In the power sector, however, 100% ownership could be a mixed blessing. It enables the consortium to have more control over the project and to operate more efficiently. However, it will also mean more risks and responsibility. To take care of the regulatory hurdles better, it is advisable for the sponsor to include more Chinese partners. That way, everyone is tied to the same wheel (Orr 1997).

The measure of entering into a contract to prevent corruption, as was done in Laibin B project, is regarded as the least effective measure for its mean score is only 1.72.

Other measures that the respondents suggested include (1) having all projects tendered on a transparent base; (2) obtaining approvals from central government's related departments (e.g., the SPC, State Administration for Exchange Control, and State Administration of Commodity Prices) together with related ministerial level approvals/contract confirmation (e.g., the Ministry of Foreign Trade and Economic Cooperation and Ministry of Power); (3) identifying key decision makers and key influencers (may not be government officials only) and maintaining close relationships with them; (4) having the Chinese government consistently enforce domestic anticorruption laws and political system that limits cronyism; and (5) completing all necessary approvals to avoid any opportunity for bribery.

Other Risks

Other unique or critical political and force majeure risks suggested by respondents and their mitigating measures are shown in Table 11.

CONCLUSIONS

BOT will be an essential part of the financing necessary for the massive investment in infrastructure. However, China's unique culture and social system, which are not familiar to many foreign investors/contractors, make the tendering system in China different from that of western countries. The effective evaluation and management of critical risks is especially crucial for successful investments in China's infrastructure projects. This paper discussed the unique/critical political and force majeure risks associated with BOT projects in China. The identified risks in their criticality sequence are the Chinese parties' reliability and creditworthiness, change in law, force majeure, delay in approval, expropriation, and corruption.

The measures for mitigating each of these risks have been evaluated by respondents. Most of the measures are regarded as effective or very effective, and only a few of them are regarded as fairly effective. The most effective measures to mitigate the risks are (1) for the Chinese entities' reliability, obtain accurate financial information about the Chinese entities so that the most capable ones can then be chosen; (2) for force majeure risk, insure all insurable force majeure risks; (3) for change in law, obtain government's guarantees on tariff adjustment or extension of concession period; (4) for delay in approval, establish a one-stop agency for all approvals; (5) for expropriation risk, having a combination of international financing and insurance policies (regarded as the most effective measure).

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