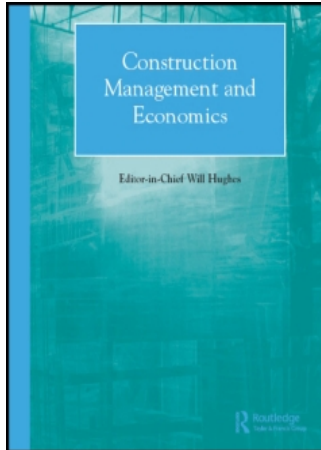


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On: 7 February 2008
Access Details: [subscription number 786932667]
Publisher: Routledge
Informa Ltd Registered in England and Wales Registered Number: 1072954
Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Construction Management and Economics

Publication details, including instructions for authors and subscription information:
<http://www.informaworld.com/smpp/title~content=t713664979>

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Online Publication Date: 01 April 2000

To cite this Article: Wang, Shou Qing, Tiong, Robert L. K., Ting, S. K. and Ashley, D. (2000) 'Foreign exchange and revenue risks: analysis of key contract clauses in China's BOT project', Construction Management and Economics, 18:3, 311 - 320

To link to this article: DOI: 10.1080/014461900370672

URL: <http://dx.doi.org/10.1080/014461900370672>

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Foreign exchange and revenue risks: analysis of key contract clauses in China's BOT project

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Received 21 October 1998; accepted 31 March 1999

Despite the Asian financial crisis, there was still growing international interests by sponsors in China's infrastructure projects financed on build-operate-transfer (BOT) concession contracts. With the closure of the Guangdong International Trust and Investment Corporation (GITIC), foreign banks have become cautious towards new loan applications by Chinese companies and they were confused about government support and guarantees. Therefore it is important to analyse and manage the unique or critical risks associated with China's BOT projects. This is especially so after new policies were introduced in late 1996 when the first state-approved BOT project, the US\$650 million 2×350 megawatt coal-fired Laibin B Power Plant (Laibin B), was awarded. The findings are reported from an international survey on risk management of BOT projects, with emphasis on power projects in China, with a discussion of the adequacy of the key contract clauses used in the Laibin B's concession agreement (CA) in addressing the foreign exchange and revenue risks, which include exchange rate and convertibility risk, financial closing risk, dispatch constraint risk and tariff adjustment risk. Areas for improvements to these contract clauses are suggested.

Keywords: Build-operate-transfer (BOT) project, risk management, foreign exchange, currency convertibility

Introduction

The financial and currency crisis in Asia has acted as more than a rude awakening for project finance. It has brought an end to what was once dubbed the decade of infrastructure development. Despite the economic slowdown, for the most part sponsors and financiers of projects are optimistic about the long-term growth potential. There is, for example, growing international interests by sponsors in China's infrastructure projects financed on build-operate-transfer (BOT) concession contracts. In other parts of Asia, infrastructure needs are still strong and private capital funding will be more important as governments have to restore their depleted reserves.

For the future, the crisis could prove to be an opportunity also to bring out greater reforms and innovative approaches to address the weaknesses in project development and financing in the emerging infrastructure market. Fundamentally, financing in the region will become more healthy. Lenders will tighten security structures while local sponsors' books will be scrutinized more carefully. The reforms introduced by the International Monetary Fund will bring out greater transparency and stable investment environments in the economies. For the infrastructure market, deals obtained through closed-door negotiations will diminish. The trend in Asia towards open competitive tendering, a procurement practice favoured by multi-lateral lending agencies, is inevitable.

Among developing countries, China has taken such initiative in several BOT projects. The introduction of competitive tendering for the equity stake in a project is a new development which will help provide sound commercial incentives to project developers to build projects quickly and operate projects efficiently. The closure of GITIC could be seen as the first strong signal from Chinese government that it will address aggressively the serious problems in the financial sector. The move could be viewed as a positive development for containing financial risk in China.

The advent of concession agreements, backed by the new BOT regulations, will be a positive move forward to achieving project-financed infrastructure projects throughout China. In addition to the adoption of competitive tendering and BOT schemes, other new policies in China include: 1. the foreign consortium will be able to own 100% of the operating company; and 2. successful tenderers will have to finance their projects from a revenue stream based on letters of comfort from the provincial government supporting off-take agreements instead of the guaranteed returns that have characterized many projects in China; and 3. for a power project, the electricity tariff is fixed with pass-through of fuel cost and foreign exchange fluctuation.

Also China has simplified the approval procedure of foreign-invested projects and intends to adopt international custom and practice for the BOT projects. For example, China is trying to formulate some standard project documents for various types of infrastructure project through some selected pilot BOT projects. To expedite the implementation, China has gone to the extent of hiring foreign advisers in preparing some of these documents.

Mitigation tools for foreign exchange and revenue risks

Periods of heightened volatility bring the issue of risk management to the top of every investor and lender's agenda. As recent events have shown, lenders will be just as concerned with foreign exchange risks, in particular the convertibility and availability, as they are with political risks (Boey, 1998). In a 1997 survey of 188 Japanese companies by the Nikkei weekly on risks that they face in doing business in Asia, foreign exchange risk was cited as the top problem. On the one hand, projects will need much tighter financing and better political and commercial risks cover, and on the other hand, governments' resources to provide guarantees are constrained by the plunge in their currencies and drop in sovereign and bond ratings. Therefore innovative techniques will need to be pioneered to manage risks, particularly political and financial risks, more effectively and actively.

Foreign exchange risks result from the mismatch between the revenue of the currency and payment obligations for taxes (usually in local currency), operating expenses (sometimes in hard currency), debt service payments (mainly hard currency) and dividend payments and profit repatriation (mainly hard currency). The access to hard currency can be achieved through currency matching via contractual arrangements. For contractors, examples include arrangement for reimbursement of costs in the currency of expenditures with the balance in local currency, and the choice of payment in one strong foreign currency for imported materials, equipment and subcontracts and in one local currency for local expenditures.

For infrastructure project developers, financing in local currency would relieve the risk of local currency devaluation. In China, there is a trend towards the use of domestic equipment and finance. In the Shandong power project, a sizeable local Renminbi tranche (Renminbi loan equivalent to US\$822 million was provided by China Construction Bank and SITIC) was twinned for the first time with a large US dollar tranche. Due to the cost advantages of manufacturing in Asian markets, a number of major equipment suppliers are exploring the establishment and/or expansion of manufacturing capacity in key Asian countries. If they prove successful, these manufacturers could offer an important contribution in reducing the currency risks faced by governments and investors in regional BOT projects. Alternative collateral also could be explored. This could be, for example, the right to receive royalty revenues from a resource project in hard currency revenues.

Other ideas could be to finance a venture whose users could pay in hard currency, e.g. toll roads in Guangdong province in China where HK\$ could be charged, or financing a venture which produces exportable products so that revenues received could be hard or convertible currency. Another often considered technique is to index the revenue stream earned in local currency against a benchmark hard currency so that the real value of the currency, in hard currency, stays the same. Therefore if the exchange rate of a local currency decreases the tariff or tolls would be increased to make up for the loss, resulting in the same hard currency equivalent regardless of the exchange rate.

Research objectives and methodology

The objectives of this paper are: 1, to identify the unique or critical risks associated with China's BOT projects; and 2, to examine the adequacy of key contract clauses used in Laibin B's CA to address these risks, and to propose possible improvements to

these clauses. The methodology developed for this study includes: 1. a literature review to identify an initial list of unique or critical risks associated with BOT projects and mitigating measures for these risks; 2. unstructured interviews and discussions to filter the risks and measures identified in 1.; 3. an international survey to evaluate the criticality of these risks and the adequacy of key contract clauses in Laibin B's CA; and 4. case studies to provide additional insight concerning contract clauses in China's BOT infrastructure projects.

The projects studied include the first provincial-approved BOT project in China, the Shajiao B Power Plant in Guangdong Province, and the first state-approved BOT project in China, the Laibin B in Guangxi Province. Other BOT projects in China, the Yan'an Second Tunnel and Da Chang Water Plant in Shanghai, Changsha Power Plant in Hunan Province, and Tangshan Power Plant in Hebei Province, were referred to also (Tiong, 1990; PFI, 1996, 1997; Wang *et al.*, 1998, 1999a; Zhang *et al.*, 1998). About 50 in 6 categories of risks associated with BOT power projects were identified (World Bank, 1994; B&M, 1996; Lam, 1997; Macdonald, 1997). For details of these 50 risks, please refer to Wang *et al.* (1999b).

Laibin B is the second-phase project for Laibin Power Plant with an estimated capacity of 2×350 megawatt (MW) coal-fired units and an estimated cost of US\$650 million (Renminbi (RMB) yuan 5 billion). It is located in Laibin county of Guangxi Zhuang Autonomous Region (Guangxi). The Electricite de France (EdF) and GEC Alsthom consortium finally won the concession from five other shortlisted tenderers with a very aggressive tender and the backing of France's export-credit agency, Coface (Orr, 1997).

Laibin B, being the pilot BOT project in China, was planned to be a model for future BOT projects especially the power projects in China. For example,

its documents are being used for other power plants, though some fine-tuning could be expected. Therefore its contract clauses in CA addressing the related risks are used as a base for the survey of this research.

The interviews and discussions focused on the unique or critical risks associated with China's BOT projects. Participants included the Director of Business Development of Foster Wheeler; 35 construction professionals and the authors, with the second author as facilitator and first author as observer to take notes. The final list of unique or critical risks is shown in Table 1. The risks identified are categorized into two groups, risks 1–6 are political and force majeure risks, while risks 7–10 are foreign exchange and revenue risks. The subject of this paper is the foreign exchange and revenue risks, which include principally the exchange rate and convertibility risk, the financial closing risk, the dispatch transmission constraint and tariff adjustment.

Definitions

Exchange rate and convertibility risk

For investment in China's power or other infrastructure projects, invariably the foreign companies will receive nearly all of their revenues in Renminbi (RMB). A significant portion of this revenue will need to be converted to other currencies, primarily US dollars, and remitted outside of China. The remittances are used to meet foreign currency obligations to equipment suppliers, to repay borrowings from foreign lenders and to make payments to the companies in respect of equity distributions and shareholder loans. The RMB is not freely convertible into US dollars, and even if it were convertible (currently only convertibility on current account is available and it was introduced in December 1996), the exchange rate fluctuates all the time in the market or subject to the approval of the State Administration for Exchange Control (SAEC). Although the approval to convert RMB into foreign currencies and to remit foreign currencies outside China is routine for approved foreign investment enterprises, there can be no assurance that the Chinese government will continue to provide such approvals.

Financial closing risk

Financial closing risk is a broad definition which contains the cash flow risk and others. It can be defined as the difficulty in financing, the high cost of financing and also as being unable to close financing in time. Generally this is due to the high level of perceived risks

Table 1 Political and currency risks of China BOT infrastructure projects

No.	Risk
1	Change in law
2	Corruption
3	Delay in approval
4	Expropriation
5	Reliability and credit-worthiness of Chinese entities
6	Force majeure
7	Exchange rate and convertibility
8	Financial closing
9	Dispatch, transmission constraint
10	Tariff adjustment

in China's BOT projects. In this paper, this risk is used as a term to define only inability to close financing in time.

Dispatch constraint risk

Dispatch constraint risk exists as the power plant is subject to governmental and electric power regulation in virtually all aspects of its operations, including the amount and timing of electricity generation, performance of scheduled maintenance and compliance with power grid control and dispatch directives.

Tariff adjustment risk

For power plants with foreign investment, tariffs payable under power purchase agreement (PPA) entered into by foreign project developer are established on the basis of tariff formulas which are agreed upon after discussions among the company's directors, its local partner, the prospective power purchaser, the local governments, the pricing bureau and the relevant planning commission. Once established, the tariffs are subject to annual review by the pricing bureau and adjustments are in accordance with the formulas. Usually the tariff formulas contained in the PPA are structured to permit the foreign developer to pay the operating expenses of the plant, the financing costs of each particular project and to enable the developer to realize a return on its investment. While the relevant China pricing bureaux may agree to utilize the adjustment formulas, there is no assurance that the formulas would not be re-negotiated and subsequently changed. There is therefore the risk that the adjustment is not enough to cover increased cost due to various reasons, such as force majeure and changes in laws.

Survey on contract clauses

Based on Table 1, 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 and question 3 on adequacy of related clauses in Laibin B contracts. This paper reports on the findings for

question 3, focusing on the foreign exchange and revenue risks. The other research findings may be found in Wang *et al.* (1999b, c). The rating systems for question 3 are shown in Table 2, and Table 3 shows the detailed contract clauses from Laibin B's CA that are related to foreign exchange and revenue risks. Question 3 was expressed as follows.

Question 3: Do you think the following contract clauses of Concession Agreement (CA) of Guangxi Laibin B Power Project are adequate for Developer/Lender to mitigate the corresponding risk?

Please rate the adequacy of each clause by circling a suitable figure at end of each clause. (Scale: 1 – Inadequate, 2 – Fairly Adequate, 3 – Adequate, 4 – Very Adequate, 5 – Fully Adequate). Please give your comments or describe your corresponding management action.

The international survey was conducted from December 1997 to March 1998. Questionnaires were sent by post to international project sponsors, developers, consultants, lawyers, lenders, investors and contractors. We received 40 responses, but for the contract clauses related to this paper, the number of valid responses was 35. All of the respondents are at top management level in their companies. Most of them have experience on international BOT projects, almost all of them have business experience in China and more than half of them have been involved directly in BOT projects in China. The detailed respondent's particulars have been reported in Wang *et al.* (1999d).

Adequacy of related contract clauses of Laibin B's CA

From the survey, the overall rating is 2.9, and three out of four of the related contract clauses used for Laibin B's CA for the above mentioned risks are regarded as adequate. Among them, the contract clauses for tariff adjustment and for exchange rate and convertibility risks are most adequate. The mean score of the adequacy of the contract clauses for financial closing risk is low at 2.12, as shown in Table 4. In general, most of the respondents felt that the provisions are satisfactory as the contract language is effective language. However, the BOT language has not yet been firmly tested in China. Thus, until such time that the contract language and enforceability have been put adequately to the test, other factors like the need for power, support for projects at multiple levels of government, and proper maintenance of relations would still be more reliable. The authors noted that the preceding comments have gained greater credence with the closure of GITIC. Bankers are discovering the

Table 2 Rating systems on adequacy of contract clauses

Rating score	Adequacy of related contract clause
1	Inadequate
2	Fairly adequate
3	Adequate
4	Very adequate
5	Fully adequate

Table 3 Contract clauses on foreign exchange and revenue risks

Risk	Original clause
Exchange rate and convertibility	<p>CA11.11: All of the Company's transactions related to the Project that require foreign exchange, including debt servicing and repatriation of income, shall be effectuated through an account with a Chinese bank approved by the parties; provided, however, that foreign exchange from foreign lenders and equity investors and used to pay foreign contractors or vendors for services provided or equipment or materials purchased outside the PRC may be paid directly to such persons without being transferred through an account in the PRC. Adequacy: 1 2 3 4 5</p> <p>CA11.12: Guangxi Government shall ensure that the Company, the Construction Contractor and the O&M Contractor receive consent, if required, for the opening and operation of, and retention of earnings in, US Dollar bank accounts inside the PRC, including, the payment of all US Dollars received under the Financing Documents into such accounts and withdrawals as therefrom. Guangxi Government shall ensure that the Company shall have permission to transfer the funds from its accounts in the PRC to its accounts outside the PRC that are necessary to implement and carry out the Project in accordance with this Agreement, including, such accounts as are reasonably required under the Financing Documents, the Construction Contract, the O&M contract and insurance policies related to the Project. Adequacy: 1 2 3 4 5</p> <p>CA11.13: The Company shall have the right to convert income from the Project from RMB to US Dollars in order to pay for Project expenses, debt service, and, subject to Article 11.14, return on and of equity during the Concession Period. Guangxi Government shall ensure that US Dollars are available from time to time for such conversion. If the Company is unable at any time to convert its RMB income into US Dollars, Guangxi Government shall, upon written request from the Company, undertake to carry out such conversion within thirty days of the Company's written request to do so, based on the then current exchange rates published by the People's Bank of China. Adequacy: 1 2 3 4 5</p> <p>CA11.14: The Company shall be entitled to remit its annual profits abroad at the end of each fiscal year, provided that: (a) the audited financial statements of the Company for the fiscal year have been submitted to Guangxi Government; (b) all taxes owed by the Company that are due and payable have been paid or provided for; and (c) the Company has paid all amounts due and owing to Guangxi Government and otherwise is not in default with respect to any of its obligations under this Agreement. Adequacy: 1 2 3 4 5</p> <p>CA11.8: In consideration of the debt service requirements of the Company, Guangxi Government agrees to pay to the Company, on each calendar month during the Concession Period, taking into account the US Dollar element of the Electricity Tariff, an amount in RMB which shall take into account variations in the US Dollar – RMB exchange rate as published by the People's Bank of China. The portion of the Electricity Purchase Charge paid by Guangxi Government in consideration of US Dollar element of the Electricity Tariff for each calendar month shall be paid to the Company's account with [Name of the Bank] or other account designated by the Company in writing. Adequacy: 1 2 3 4 5 (See also "Tariff adjustment")</p>
Financing close	<p>The Successful Bidder shall accomplish the Financial Closing within sixty days following the approval of initiated CA by the SPC. (Instructions to Bidders 10.4) Adequacy: 1 2 3 4 5</p>
Dispatch, transmission constraints	<p>CA9.2: During the Concession Period Guangxi Government shall have: (a) the right to Dispatch the Power Plant based on the Economic Dispatch principle, provided that (i) at any time dispatching of the Power Plant shall not go beyond the Operating Parameters and compliance with the operation procedure in the PPA; (ii) at any time during the operation period, the dispatching of the Power Plant shall not exceed the Declared Available Capacity of the Power Plant. (b) in the event that the Company is able to deliver electricity over the Minimum Net Electrical Output, Guangxi Government agrees that it shall not discriminate against the Company in issuing Dispatch Instructions and shall comply with the Economic Dispatch principle, operation procedure agreed by parties, Prudent Engineering and Operating Practice, and the limits of the Declared Available Capacity. Adequacy: 1 2 3 4 5</p> <p>CA9.6.2: The failure by the company to maintain an Available Capacity equal to the Contracted Capacity as a result of Forced Outages, Partial Derating or other causes not due to Force Majeure, or the default of Guangxi Government or the default of Guangxi Power Industry Bureau (GPB), will oblige the Company to pay liquidated damages and persistent failure may be treated as a Company Event of Default as provided in the PPA. Adequacy: 1 2 3 4 5</p>

Table 3 continued

Risk	Original clause
	<p>CA9.8: Guangxi Government shall operate and maintain or cause to be operated and maintained the Transmission Line, the Grid System and Guangxi Government's other systems and facilities in a safe and prudent manner in accordance with its internal operating procedures, standards and guidelines as necessary to provide a reliable system for the receipt and distribution of the Net Electrical Output of the Power Plant.</p> <p style="text-align: right;">Adequacy: 1 2 3 4 5</p> <p>CA6.11a: Guangxi Government shall construct, install and furnish the Transmission Line for transfer of the electricity of the Power Plant to the users.</p> <p style="text-align: right;">Adequacy: 1 2 3 4 5</p>
Tariff adjustment and revenue-related clauses	<p>CA11.9: During the Concession Period, Guangxi Government will permit the Company to make reasonable adjustments to the Electricity Tariff as detailed in the PPA according to the following principles: (a) Exceptionally, the Electricity Tariff may be adjusted upon the occurrence of any uninsurable Force Majeure Event including any Change in Laws or any other exceptional events recognized by Guangxi Government as being of such gravity or importance, which cause difficulties in the repayment of the principal and interest to the Lenders by the Company. The exceptional adjustment of the Electricity Tariff (to produce the Supplemental Tariff) may be made subject to the principles stated in the PPA. (b) The US Dollar portion of the Operating Tariff shall be adjusted from time to time to take account of variations in the US Dollar – RMB exchange rate beyond a certain threshold (5%) as provided under the PPA. (c) The Fuel Tariff will be adjusted as and when the Base Fuel Price under the FSTA is adjusted. (d) The company shall be responsible for applying the various adjustment formulae in Appendix 3 of the PPA accurately and shall provide Guangxi Government price control authority with appropriate evidence and calculation detail to enable verification of the company's calculations. Guangxi Government price control authority will check that any proposed adjustment is in conformity with the formulae and calculation methods agreed in the PPA. Guangxi Government shall be allowed a period of thirty days in which to either approve payment on the basis of the Company's calculation or give notice to the company disputing the amount claimed.</p> <p style="text-align: right;">Adequacy: 1 2 3 4 5</p> <p>(See also "Changes in laws")</p> <p>CA11.1: During the Concession Period, the Company shall dedicate the Available Capacity and Net Electrical Output of the Power Plant solely to Guangxi Government and shall not sell any of the Net Electrical Output to any third party without the prior written consent or instruction of Guangxi Government.</p> <p style="text-align: right;">Adequacy: 1 2 3 4 5</p> <p>CA11.2: Guangxi Government shall guarantee to purchase the Minimum Net Electrical Output of 3,500,000,000 kWh each Operating Year from the Power Plant in accordance with the PPA.</p> <p style="text-align: right;">Adequacy: 1 2 3 4 5</p> <p>CA11.4: So long as the Company is not in default of its obligations under this Agreement, and subject to the provisions pertaining to any such default or the occurrence of an event of Force Majeure during the Concession Period, Guangxi Government through GPIB shall pay the Electricity Purchase Charge for the Net Electrical Output transmitted to the Delivery Points in accordance with the PPA: (a) During testing and Commissioning of Unit 1 and Unit 2, Guangxi Government through GPIB shall pay to the Company the Fuel Charge for all Net Electrical Output generated and delivered to the Delivery Point. (b) For each month or part thereof after the Commissioning of Unit 1 and before the Commencement of Commercial Operations, Guangxi Government or GPIB shall pay: (1) the Operating Charge calculated on the basis of the part of the Operating Tariff for the Minimum Net Electrical Output for that month denominated in RMB; plus (2) the Fuel Charge for all Net Electrical Output actually delivered in accordance with the Dispatch Instructions for such months; plus (3) any Supplemental Tariff. (c) For each month or part thereof after the Commencement of Commercial Operations and until the end of the Concession Period, Guangxi Government through GPIB shall pay: (1) the Operating Charge for the Minimum Net Electrical Output for that month, plus (2) the Fuel Charge for all Net Electrical Output actually transmitted according to the Dispatch Instructions for that month; plus (3) any Supplemental Tariff. (d) After the Commencement of Commercial Operations, at the end of each Operating Year, Guangxi Government or GPIB shall, in accordance with Article 6.4 of the PPA, pay: (1) the Operating Charges for the Additional Net Electrical Output calculated on the basis of Operating Tariff for the Additional Net Electrical Output; plus (2) any Additional Charges.</p> <p style="text-align: right;">Adequacy: 1 2 3 4 5</p>

Table 3 continued

Risk	Original clause
	PPA7.1: The Electricity Purchase Charge is the total amount charged by the Company to GPIB in relation to the production of Net Electrical Output at the Power Plant. The Electricity Purchase Charge at any given time shall be made up of any one or more of the following elements, which are more particularly described in Appendix 3: (1) Operating Charge; (2) Fuel Charge; (3) Additional Charges.
Adequacy: 1 2 3 4 5	

worth of letters of comfort or word of local government as a recourse in recovering loans; the cost of a non-transparent financial system, the implications for unregistered foreign loans and the extent of debt protection afforded by China's bankruptcy rules.

The comments of some respondents who gave low ratings on the adequacy are that although the contract clauses are all drafted according to international customs and practices they are still not very suitable in the Chinese context. A more exact non-legal wording should be used, detached from a particular legal system. To the extent practically possible, terms like 'material', 'substantially', 'adversely', etc. should be quantified and more details would have to be introduced to make the clauses more specific. The following sections will therefore discuss the possible improvements to these clauses.

Improvement of related contract clauses of Laibin B's CA

Tariff adjustment risk

There are five main clauses, CA11.9, CA11.1, CA11.2, CA11.4 and PPA7.1, that address the tariff adjustment risk and other related revenue risks. The mean score of adequacy of these clauses is 3.31 which is regarded as the most adequate clause for all risks. However, there are some possible improvements as suggested by the respondents and these are discussed below.

For CA11.9 on adjustments to the electricity tariff to take account of US\$–RMB exchange rate variations, the improvements suggested by the respondents

include: 1. 'while 5% threshold' on the exchange rate variation seems to be acceptable risk that a major devaluation will not be put through, it is preferable to have tariff adjustment that would cover full exchange rate variation; 2. the exceptional events to be recognized by the Guangxi government should be based on reasonable principles and international structures; 3. it is better handled through an exhibit showing how adjustments are made to the tariff formula; 4. the force majeure 'recognized by Guangxi Government' will result in the project company depending on the interpretation by Guangxi Government and it is better to improve this sentence; 5. the wording 'adjusted from time to time' (one month) would be better changed to 'one or two weeks'; 6. it is better in the indexation mechanism to include US\$ and RMB inflation or tariff should also be adjusted based on recorded inflation (if not available, adjustment should be based on escalation of labour cost, coal cost and other operating expenses, which are denominated in RMB); 7. the full tariff adjustment should be a 'back-to-back' arrangement with Fuel Supply and Transportation Agreement (FTSA) provisions (even if the government opposes to the tariff calculated by the company, the company's tariff should be payable until the dispute is resolved); 8. it should state clearly whether approval from the State Price Control Bureau is necessary for the adjustment, and if so, this needs to be addressed; 9. it should also address what to do if there is a dispute whatsoever happens.

For CA11.1 on selling of electricity solely to Guangxi government, it is better to have agreement upfront to sell to third parties if there is available energy over and above the requirements of the government. The investor's risks have not been fully mitigated as respondents are concerned with Guangxi Government's financial capability to meet its guarantees that were stated in the PPA. In addition, the 'written consent or instruction' of Guangxi Government needs a time frame for reply and therefore possible delays.

For CA11.2 on the government's guarantee to purchase the minimum electricity amount of 3.5 billion kWh each operating year, the possible improvements include the following: 1. The guaranteed-purchased minimum net electrical output is only slightly more

Table 4 Adequacy of related contract clauses of Laibin B's CA

Risk Factors	Adequacy of contract clause	
	Mean score	Ranking
Tariff adjustment	3.31	1
Exchange rate and convertibility	3.26	2
Dispatch constraint	2.92	3
Financial closing	2.12	4

than half the capacity, if the government cannot purchase the excess capacity. Hence the minimum net electrical output should be more. 2. The action should be addressed clearly that should be taken if the dispatch is less than 3.5 billion kWh: will Guangxi Government pay equivalent fees and at what tariff? 3. It is better that the government should pay all costs. Other expenses, like a certain amount for each time the units are turned on, should also be paid. 4. Delays in commissioning and/or commencement of commercial operations need to be addressed too.

For PPA7.1, it is by itself a neutral statement but should also define a measure of output and reference to an international standard.

Exchange rate and convertibility risk

There are five clauses, i.e. CA 11.11, CA11.12, CA11.13, CA11.14 and CA11.18, that address the exchange rate and convertibility risk. Some clauses for tariff adjustment risk also address this risk too. The mean score of respondents' rating for these clauses' adequacy is 3.26 and is ranked second in terms of the adequacy of clauses. Hence the allocation of Laibin B's exchange rate and convertibility risk to the government is regarded as reasonable. Respondents' comments and improvements for each clause are described below.

The adequacy of all clauses for this risk is subject to their enforceability and the government's credit-worthiness. For CA11.11, which deals with foreign exchange account with a Chinese bank, it is still regarded as restrictive for it only achieves segregation of foreign exchange while it does not answer how foreign exchange is to be generated. In addition, it allows the project developer to keep only one foreign exchange account off-shore to pay its contractors, suppliers etc. It should also be reminded that its applicability under Chinese laws is in conjunction with the State Administration of Exchange Control (SAEC) approvals.

The situation is similar, for CA11.12 and CA11.13, as operating a US\$ account is governed by the national foreign exchange regulation set by SAEC. It is unclear what role the provincial government can play in this regard, when the provincial government does not have the legal authority over foreign exchange approvals. The current regulations provide for current account convertibility and the Guangxi government cannot give more or less. So it is questionable how the guaranteed foreign exchange availability can work out under the regulations. It is better to get approvals or supports from central government, e.g. China's central bank (Bank of China) or SAEC. Such concerns by the respondents, expressed before the GITIC collapse,

should not be dismissed lightly. At the time of GITIC's closure in October 1998, foreign lenders had a false sense of containment of their problems because Beijing gave assurances that foreign debts would be repaid. Most banks took that to mean SAEC-registered loans would be recovered. In a U-turn later, Beijing said foreign banks which had registered their loans with SAEC would not be accorded priority over other creditors.

In addition, the 'current exchange rates' in CA11.13 should be defined clearly as to whether it means at the original exchange rate or at published rates of 'thirty days' after the company's written request for foreign exchange conversion. Also it is better to fix or band the rate. Second, CA11.13 is not enough to offset any potential RMB devaluation. The period of 'thirty days' is too long and it is better to be one or two weeks.

For CA11.14, remittance of annual profits, it is great if there is no need to set aside money as foreign currency reserve. However, some respondents argued that such provision is also contained in Sino-foreign Joint Venture Laws and it does not offer anything extra. It only clarifies what can be converted but does not spell out the period of foreign exchange convertibility and availability. It is also too much disclosure for the company and it is restrictive and costly for financial statements to be audited annually. In addition, it is still a little restrictive for remittance to be only once each year and it is better to be twice a year.

For CA11.8, it is well worded and protects US\$ equity investment as well as debt, but it still comes back to Guangxi Government's ability to get sufficient foreign exchange unless the project promoter provides cash deficiency support. It is better to specify clearly the extent of exchange rate 'variation' for various periods, i.e. should cover up to payment date.

Dispatch constraint risk

There are four main clauses, i.e. CA9.2, CA9.6.2, CA9.8 and CA6.11a, that address this risk. The mean score of adequacy of respondents' rating is 2.92.

For CA9.2, the suggested improvements include: 1. the clause looks good, but power dispatch is not normally under the control of the provincial government unless there is back-to-back guarantee with Guangxi Power Industry Bureau (GPB), and this was actually taken care of in Laibin B as the successful tenderer entered in PPA with the GPB; 2. the clause does not mention the ramp up/down situations of power dispatch and should address it; and 3. tight definition of 'economic dispatch' required.

For CA9.6.2, it is acceptable as long as the capitalized terms and 'persistent failure', 'liquidated damages' in the original clause are defined satisfactorily. In addition, it still needs to balance this against the liquidated damage associated with the failure of Guangxi Government to take the minimum net electrical output. It is also reminded that this clause does not help the investor/tenderer to mitigate their risks.

Similar to CA9.2, it is also needed for CA9.8 that there is back-to-back guarantee with GPIB. In addition, Guangxi Government should: (a) apply an international standard; and (b) guarantee on minimum effective capacity after transmission loss (e.g. limit transmission loss factor). Also 'prudent manner' in operating and maintaining the transmission line should be defined clearly.

Finally, it is assumed in CA9.8 and CA6.11a that lack of compliance is a material default. Therefore, the CA should include payment obligations by the Guangxi Government if such transmission lines are not in place in time (given the poor state of finance and that Guangxi is one of the poorest provinces in China). Appropriate compensation (liquidated damages by government should be enough for debt services) should accompany this clause. Detailed schedule and standard for operation and maintenance of the transmission system should also be defined, and hence milestones (critical schedule) and penalties are needed to calm lenders that plant can be utilized. There should be due diligence work by an independent engineer. Most importantly, the dateline and timing on the transmission line should be spelled out, i.e. the facility should be ready prior to the opening date for testing of the plant.

Financial closing risk

There is no formal clause in Laibin B's CA but there is one clause (CA10.4) in the Instructions to Bidders that addresses the financial closing risk. As financial close is important in BOT project financing, it is quoted also in the questionnaire for analysis. The respondents' mean score of the adequacy for this clause is 2.12, the lowest rating of adequacy of all clauses for risks. The respondents generally are against the tight schedule, i.e. 'sixty days' of financial closing is too short, although it seems to be a requirement of the government for the project and is consistent with the project finance measures' promulgated by the State Planning Commission in April 1997. The reason is that the burden for financial closing is on the bidder and yet it depends on many other factors which are out of the developer's control. Financial closing usually needs at least 3 months from bid award and also is subject to the adequacy of the CA. Sixty days

is regarded as too tight. In fact, the financing close period was extended to 180 days after EdF&GEC Consortium's negotiation with Guangxi Government. Despite this extension, the financing of Laibin B was actually closed 270 days after the CA was signed, a delay of three months from the official schedule.

Conclusion

The evaluation of the key contract clauses in Laibin B's concession agreement related to foreign exchange and revenue risks by international practitioners has been discussed. In general, they agreed that the contract language is effective and that the provisions conform to international practice. The clauses are relatively adequate in addressing the sponsors' and lenders' concerns towards foreign exchange and revenue risks in China. However, there are areas for improvement, especially in the area of foreign exchange approvals and tariff adjustments. For foreign exchange availability and convertibility, the preference is for all support and approvals to be endorsed by the central government's agencies such as the State Planning Commission and the State Administration for Exchange Control. For tariff adjustment and revenue risks, the preference is for the payment obligations by the provincial government to be quantified and clearly spelled out in the contract agreement.

Acknowledgements

The authors are grateful to all respondents of the survey for their valuable opinions and contributions.

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