Renegotiation and Early-Termination in Public Private Partnerships

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Abstract: Frequent occurrence of renegotiations and early-terminations in international contracts regarding the provision of public works and services through public private partnerships (PPPs) has raised concerns from various stakeholders in both public and private sectors. Renegotiations and early-terminations of PPP contracts may cause significant losses to the parties involved and reduce the perceived strengths and advantages of PPPs against traditional in-sourcing procurement. Through a comparative analysis of international government PPP guidelines and model contracts and multiple case studies of different types of PPP projects located worldwide, this study has identified and analyzed eight categories of risk events that often lead to renegotiation and early-termination in PPP practices, discussed the approaches to contingency management in view of such risk events, in particular the possible compensation methods respectively for the situations of renegotiation and early-termination, and established overall renegotiation and early-termination procedures. To improve PPP practices, public and private partners should build good relationships, prepare clear contract clauses, minimize opportunistic behavior and look for win-win solutions.

Keywords: Public private partnerships, contract, renegotiation, early-termination, risk, compensation

DOI: 10.7492/IJAEC.2015.021

1 INTRODUCTION

Public private partnerships (PPPs) are contractual relationships between public and private sectors. The public partner (hereinafter referred to as the government) awards a long-term contact (hereinafter referred to as the concession) to the private partner (hereinafter referred to as the concessionaire) to design, build, finance and operate a project (Zhang 2009). Compared to traditional in-sourcing procurement approaches, PPP schemes have advantages in greater efficiency, enhanced profitability, reduced deficit/debt, quicker market development, faster investment and increased competition (Zhang and Kumaraswamy 2001; Zhang 2005). However, there are still many challenges for PPPs, among which renegotiations and early terminations are two issues to be tackled.

Renegotiation means modifying the original contract to address unexpected events while early-termination referring to stopping the original contract and quitting the concession. Renegotiation may require substantial changes in the core concession clauses regarding tolls/tariffs (in addition to standard and scheduled toll/tariff adjustments and periodic toll/tariff reviews), investment plans and levels, exclusivity rights, guarantees, lump-sum payments or annual fees, coverage targets, service standards, and contract periods (Guasch 2004). Early-termination is to end the concession, compensate the concessionaire and transfer the project assets before the original expiry date of the contract (HM Treasury 2007).

Renegotiations and early terminations are normal nowadays. Guasch et al. (2008) found that 53% of the PPP projects in the transport sector and 76% in the water sector were renegotiated after studying about 1,000 concession contracts in Latin American. Woodhouse (2006) found that 21 of the 34 (61.8%) energy concessions underwent either mutual or unilateral renegotiations. Cruz and Marques (2013) found that 67% of 87 Portuguese concessions in different sectors were renegotiated. The Private Participation in Infrastructure database of the World Bank (2011) shows that...
334 of the 4,874 PPP projects (6.85%) undertaken in developing countries from 1984 to 2010 were early terminated. Even some famous PPP projects have experienced renegotiations and/or early-terminations, e.g., the early-termination of the concession of the Channel Tunnel in the United Kingdom (Ho and Tsui 2010). Renegotiation and early-termination are both failures of the original contract that failed to foresee and/or to prepare for unexpected risk events. Renegotiations and early-terminations could greatly reduce the strengths and advantages of PPPs. Renegotiations usually occur between the concessionaire and the government without competition. The concessionaire could force favorable renegotiations to gain surplus profit (De Brux 2010). Perverse renegotiations and huge public financial guarantees had caused massive amounts of public resources to be devoted to covering private sector losses in PPP projects (Albalte and Bel 2009). Early terminations may occur with even higher costs for the government due to the huge compensation to the concessionaire, additional financial costs and arbitration fees, and intervention or suspension of public services (HM Treasury 2007).

### 2 COMPARISON OF INTERNATIONAL PPP CONTRACTS

In order to draw multi-country experience in regulating renegotiations and early terminations, this study has analyzed PPP contracts used in seven countries/regions (the United Kingdom, Australia, India, the USA, Canada, Mainland China and Hong Kong) and the World Bank, including five model contracts and three project contracts as shown in Table 1. The United Kingdom was a pioneer in adopting PPPs and has achieved great success in its Private Finance Initiative (PFI) program. In 1999, HM Treasury established the “Standardization of PFI Contract” (SoPC). The PFI model has become the main procurement approach of public services in the United Kingdom and the experience of many PFI projects has, in turn, improved the SoPC. In 2007, SoPC version 4 was issued and has been regarded as the most detailed model contract for PPP projects all around the world.

The Council of Australia Government endorsed the “National Public Private Partnership Policy and Guidelines” in 2008, including the “Commercial Principles for Social/Economic Infrastructure”. Moreover, the Department of Treasury and Finance in Victoria established the “Partnerships Victoria Detailed Guidance Material: Updated Standard Commercial Principles”. The Indian government has taken PPPs as an important approach to procure public works and services. The Ministry of Finance established an agency named “Public Private Partnerships in Indian” to guide national PPP development and the National Highway Authority of India has issued the “Model Concession Agreement” for road projects.

In the USA, the Department of Transportation Federal Highway Administration has issued guidelines for PPP development, including the agreement documents of many previous PPP projects. Since there is no model concession agreement in the USA, this study selected the concession agreement of one of these projects, the Route 495 Hot Lanes in Virginia.

In Canada, although many guidelines have been issued by the Canadian Council for Public-Private Partnerships, there is no model concession agreement. This study used the concession agreement of the Golden Ears Bridge in British Columbia.

In Mainland China, PPPs have developed rapidly in the past 20 years. Although the central government has not established a national agency to promote PPP projects, many local governments have issued guidelines for this purpose. This study included the “Model Concession Agreement for BOT Sewage Treatment Works” used in Shenzhen, Guangdong Province.

Hong Kong initiated PPP-based infrastructure development in the late 1960s. Five large tunnel projects have been developed through the build-operate-transfer arrangement. This study chose the...
concession ordinance of one of these projects, the Western Harbor Crossing.

The World Bank has established an agency named “PPP in Infrastructure Resource Center for Contracts, Laws and Regulations”, from which many model agreements were provided to promote infrastructure development in developing countries. This study analyzed the “Road Concession Agreement” developed by this agency.

3 RISKS AND CONTINGENCY MANAGEMENT IN PPP PROJECTS

3.1 Risks and Flexibility in Contingency Management

PPPs generally involve large sunk investments in long-lasting contracts developed in contexts of great uncertainty (Cruz and Marques 2012). In general, there are eight categories of risk events: relief events, compensation events, force majeure, default events, change-in-law, change-in-service, refinancing and change-in-control. Practitioners have put enormous efforts into “overwriting” the contract in order to reduce uncertainty and various “contingencies” have been considered at the same time (Marques and Berg 2010). Table 2 indicates contingencies that have been considered in PPP contracts in different countries and regions. It seems that the model agreements in the United Kingdom and Australia and the project agreement in Canada have the most detailed contingencies specified.

In view of the various risk events, a certain degree of flexibility should be considered in contingency management to allow public and private partners to adjust their relationship to such contingencies (Salacuse 2000). Table 3 summarizes the contingencies that have been considered in international PPP contracts with respect to each risk event.

3.2 Relief Events

Relief events are risks that are best managed by the concessionaire (although not necessarily in its control) and for which the concessionaire bears the financial risk, but in respect of which no rights of compensation should arise (HM Treasury 2007). Contingencies include (1) remedy: the concessionaire should make reasonable endeavors to rectify matters and mitigate consequences; (2) time extension: if a relief event occurs prior to service commencement, any long-stop termination date will be put back by a period equal to the relevant delay; and (3) insurance: relief events are usually required to be insured by the concessionaire to relieve consequences.

3.3 Compensation Events

Compensation events are risks that are best managed by the government (although not necessarily in its control) or shared by both the government and the concessionaire, in respect of which the concessionaire should be compensated (HM Treasury 2007). A compensation event usually results in revenue losses and/or increased costs to the concessionaire. Contingencies include (1) remedy: the concessionaire should be obliged to make reasonable endeavors to mitigate its losses and costs even though the risks should be taken by the government; (2) time extension: the planned service commencement date may have to be postponed, usually by the length of any delay caused; and (3) renegotiation: the concessionaire should be compensated for losses resulting directly from a compensation event.

3.4 Force Majeure

Force majeure has a catastrophic effect on each party’s (usually the concessionaire’s) ability to fulfill its obligations under the contract and can cause serious losses of project assets (HM Treasury 2007). In such an event, neither the public nor the private party is likely to be in a better position than the other to manage either the occurrence or the effect of force majeure. Contingencies include (1) renegotiation: partners should renegotiate the contract and attempt to find a way to continue the PPP project, such as altering service requirements, amending payment terms or extending the contract; and (2) early-termination: if partners fail to save the project through renegotiation, they can terminate the contract and the concessionaire will be compensated for outstanding senior debt.

3.5 Default Events

Default events are composed of “concessionaire default events”, in which a breach or persistent breaches by
### Table 3. Contingencies in international PPP contracts

<table>
<thead>
<tr>
<th>Risk Events</th>
<th>Contingencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relief events</td>
<td>Remedy; time extension; insurance</td>
</tr>
<tr>
<td>Compensation events</td>
<td>Remedy; time extension; renegotiation</td>
</tr>
<tr>
<td>Force majeure</td>
<td>Renegotiation; early-termination</td>
</tr>
<tr>
<td>Default events</td>
<td>Remedy; monetary deductions; step-in rights or replacement of sub-concessionaires; renegotiation; early-termination</td>
</tr>
<tr>
<td>Change in law</td>
<td>Cost mitigation; renegotiation</td>
</tr>
<tr>
<td>Change in service</td>
<td>Pricing pre-specified changes; renegotiation</td>
</tr>
<tr>
<td>Refinancing</td>
<td>Government consent and audit; gain sharing; early-termination</td>
</tr>
<tr>
<td>Change in control</td>
<td>Lock-in period; government consent</td>
</tr>
</tbody>
</table>

the concessionaire of any of its obligations under a contract materially and adversely affects the service performance, and “government default events”, in which the government acts in a way that renders their contractual relationship untenable or completely frustrates the concessionaire’s ability to deliver the service (Partnerships Victoria 2008). Contingencies include (1) remedy: the defaulting party must provide a cure plan for the other party’s approval and rectify the default events within a specified cure period; (2) monetary deductions: monetary deductions can be made for the defaulting party in addition to remedy; (3) step-in rights or replacement of sub-concessionaires: the government or the senior lender may exercise its step-in rights or request replacement of sub-concessionaires if the defaulting party has not complied with an approved cure plan and diligently pursued a remedy (Partnerships Victoria 2008); (4) renegotiation: if one party defaults and the other party’s interest is influenced, the other party could ask for compensation through renegotiation; and (5) early-termination: the government or the concessionaire could terminate the contract depends on the situation.

#### 3.6 Change-in-Law

Change-in-law is any change in legislation, subordinate legislation, rules, regulations, policies or guidelines with which the concessionaire is legally required to comply (Partnerships Victoria 2008). Contingencies include (1) cost mitigation: the costs of a change-in-law for the concessionaire can be mitigated by the government through indexation, benchmarking or market testing; and (2) renegotiation: partners can renegotiate the contract to keep the costs due to a change-in-law to a minimum, such as by altering construction works prior to completion (HM Treasury 2007).

#### 3.7 Change-in-Service

Change-in-service is any change in functionality, capacity or specification of facilities and services which is initiated by either the concessionaire or the government (HM Treasury 2007). The flexibilities include (1) pricing pre-specified changes: anticipated changes-in-service are capable of being specified, designed and priced as part of the initial bid solution, ideally at a stage where there is some competitive pressure in the procurement; and (2) renegotiation: some unanticipated changes should be solved by well-developed renegotiation mechanisms written into the contract (HM Treasury 2007).

#### 3.8 Refinancing

Refinancing is an event where the concessionaire replaces, augments, or changes the structure, nature or terms of the financing solution after the financial close in order to increase or accelerate distributions to investors, or reduce their commitments to the project. Refinancing carried out in accordance with the contract can be beneficial to both the concessionaire and the government (HM Treasury 2007). Contingencies include (1) government consent and audit: the government may consent to refinancing proposals from the concessionaire by three criteria (achieving value for money, increasing the incentive for high performance and enhancing financial stability, and having the right of access at any time to audit the refinancing process); (2) gain sharing: a sharing of refinancing gains between the government and the concessionaire is specified in the contract and is paid by either a cash sum at the time of refinancing or a reduced unitary charge; and (3) early-termination: both the government and the senior lender have rights to terminate the contract when the concessionaire breaks the refinancing provisions and the compensation is similar to that in concessionaire default events.

#### 3.9 Change-in-Control

Change-in-control is any sale, transfer, or disposal of any legal, beneficial, or equitable interest in any or all of the shares in the concessionaire (HM Treasury 2007). Contingencies include (1) lock-in period: it is usually up to the service commencement date plus the defects liability period, during which no change-in-control is permitted; and (2) government consent: after the lock-in period, change-in-control can be permitted by government consent, which aims to prevent any party that the government views as unsuitable from being involved in or taking comfort from the original shareholders continuing to retain their economic stake.
4 INTERNATIONAL PRACTICES IN RENEGOTIATIONS AND EARLY-TERMINATIONS

4.1 Cases of Renegotiations and Early-Terminations

Renegotiations and early-terminations are common in PPP infrastructure projects. Some projects resumed product/service delivery shortly after renegotiation whereas some others were terminated. In order to draw international experience across sectors and countries concerning contingencies and procedures in renegotiations and early-terminations, this study selects four renegotiated projects and four early-terminated projects as shown in Table 4, involving infrastructure sectors of highways, airports, power plants, and water supply and drainage facilities in both developed and developing countries such as the United Kingdom, the USA, Argentina, Mexico, Cambodia and China. These cases are selected based on the following criteria: the project was after the financial closure of due diligence, the project was publicly declared to be in serious risk scenarios, and the government or the concessionaire had requested either renegotiation or early-termination.

4.2 Multiple Case Studies

This study adopts the technique of multiple case studies to analyze the risk events and their impacts and the compensation approaches and their effects. Multiple case studies are an exploratory research method when the researchers have little or no scientific knowledge about the group, process, activity or situation they want to examine but nevertheless have confidence that the selected cases contain common elements worth discovering (Stebbins 2001).

4.3 Risk Events in the Eight Cases

As far as the eight cases are concerned, renegotiations and early terminations are usually caused by the combined effect of a number of risk events, and the complicated interrelationships of these risk events make it difficult to allocate the default responsibility between the government and the concessionaire. Specifically, in the Phnom-Penh Airport, the “economic and financial crisis” and “military insurrection” caused the drastic reduction of traffic and loss of revenue; in the National Physical Laboratory Redevelopment Project, the “design risk” induced “construction cost overrun” and “time delay” of the concessionaire; in the South Bay Expressway, the project suffered “public opposition”, “construction cost overrun”, “low traffic demand” and “asset devaluation”; in the Argentina Toll Road Program, “public opposition”, “change-in-law” and “planning risk” led to renegotiation; in the Mexico Toll Road Program, “construction cost overrun”, “low traffic demand”, “interest increase” and “operation & maintenance cost overrun” led to the failure of most of the projects; in the Buenos Aires Water and Sanitation Project, “government’s additional investment request” and “operation & maintenance cost overrun” led to renegotiation; the Anhui Lai’An Metronic Water Supply Project and the 91 Express Lanes were terminated early due to “the parent company withdrawing from the project” and “uniqueness risk” respectively.

4.4 Compensations in the Four Renegotiated Cases

Compensation methods are usually used jointly to deal with excessive risks in renegotiations. However, some constraints have to be taken into consideration, e.g., the government’s ability to pay subsidies and the end-users’ tolerance of high toll rates. In the Phnom-Penh Airport, direct reimbursement, guarantee and contract extension were considered. In the Argentina Toll Road Program, toll decrease and direct reimbursement were used. The toll decrease was at the request of the general public, so direct reimbursement was to compensate the concessionaire for revenue losses caused by the toll decrease. In the Mexico Toll Road Program, toll decrease, contract extension, direct reimbursement, and reduction in the concessionaire’s investment obligations were used. The toll decrease was used to increase the traffic demand and other approaches were taken to compensate the concessionaire for revenue losses caused by the toll decrease. In the Buenos Aires Water and Sanitation Project, toll increase and tax waiver were used. Toll increase was applicable because operation and maintenance costs increased and tax waiver aimed to compensate the concessionaire for investment in poor areas.

4.5 Compensations in the Four Early-Terminated Cases

With regard to the four early-terminated projects, practitioners favored the non-retendering methods, i.e., the book-value method and the market-value method. The book-value method is usually used for quasi-profitable or non-profitable PPP projects, such as prisons, hospitals, schools and sewerage treatment plants for which there is no free market. The NPL redevelopment project is such a project. The book-value method is also used for uncompleted projects, e.g., the Anhui Lai’An Metronic Water Supply Project. The market-value method is suitable for profitable PPP projects such as transportation projects, water supply plants and power plants because there is stable revenue and the market value can be estimated by future cash flows. The South Bay Expressway and the 91 Express Lanes are profitable projects.
### Table 4. Case studies of renegotiations and early-terminations in PPP projects

<table>
<thead>
<tr>
<th>Cases</th>
<th>Risk and Impact</th>
<th>Compensation and Effect</th>
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<tbody>
<tr>
<td>The Phnom-Penh Airport, Cambodia (De Brux 2010)</td>
<td>Risk: (1) The Asian economic and financial crisis started to spread to Cambodia with the depreciation of the currency; (2) a military insurrection erupted in the capital of the country; (3) capital outflow in the whole region and a collapse of the traffic in the airport, from 350,000 to 0; (4) the senior lenders cancelled the loans for this project one by one. Impact: The concession was approaching bankruptcy and the airport was more and more damaged. Finally, renegotiation was conducted to save the project.</td>
<td>Compensation: (1) A compensation account was created to make up for the losses by the concessionaire, and this account was credited with the insurance compensation received and with a portion of the revenue sharing that the government was entitled to; (2) It was ensured that Cambodia’s financial situation would not deteriorate further; and (3) the concession was extended for 5 more years. Effects: The government has a running airport and the concessionaire benefits from an important reputational gain.</td>
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<td>National Physical Laboratory Redevelopment Project, United Kingdom (House of Commons 2006)</td>
<td>Risk: (1) The concessionaire underestimated the design risks to meet the environmental requirements of the project; (2) the project suffered considerable construction delays and difficulties in achieving the specification for some parts of the buildings; and (3) the realization of benefits associated with the new buildings was delayed. Impact: The project contract was terminated and transferred in December 2004.</td>
<td>Compensation: (1) The government paid the concessionaire £75 million for its interest in the new buildings using the book-value method; and (2) the government bought back and completed the project by itself. Effect: The government lost around £47 million and all but eight of more than 400 laboratories should be capable of meeting its specifications in full. The concessionaire reported a loss of at least £100 million.</td>
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<tr>
<td>South Bay Expressway, USA (Samuel 2011)</td>
<td>Risk: (1) Local and environmentalist protests delayed the project for several years; (2) mismanagement of the construction added greatly to costs; (3) overoptimistic projections of traffic and revenue based on growth 1995 to 2005; and (4) the housing bubble bursting and producing a major drop in activity in fringe suburban areas. Impact: Disappointing traffic revenue and serious cost overruns caused bankruptcy of the project company.</td>
<td>Compensation: (1) The project was officially sold to the government for $341.5 million based on the market-value method; and (2) project assets were transferred to the government and the project became state-owned. Effect: The compensation was significantly more than the road’s assessed value of $287 million because the government lowered tolls to attract increased traffic and about $200 million would be saved by cancelling previously planned additions to capacity-extra lanes on another state-owned road (parallel I-805).</td>
</tr>
<tr>
<td>Argentina Toll Road Program, Argentina (Soomro and Zhang 2011)</td>
<td>Risk: (1) Users complained that tolls were collected before improvements; (2) the voiding of contract escalation clauses, which established a fixed peso-US dollar exchange rate; and (3) the location of toll booths that tended to create “captive” trips. Impact: After only five months of operation, the government suspended the contracts and renegotiated.</td>
<td>Compensation: (1) A 50% reduction in tolls; (2) waiving of the annual lease fee paid to the government and provision of $57 million equivalent in subsidies to cover the concessionaires’ value-added tax contributions. Effects: Problems were solved and the experience was learned in the next toll road program.</td>
</tr>
<tr>
<td>The Mexico Toll Road Progra, Mexico (Carpintero and Gomez-Ibañez 2011; Ruster 1997)</td>
<td>Risk: (1) Construction costs turned out to be on average around 30% higher than estimated; (2) traffic in the early years of operation was in most cases far below the forecast; (3) the Mexican financial crisis of 1995 further undermined the financial viability of the concessions due to reduced traffic and increased interest rates; and (4) Operation and maintenance costs substantially ran over budget. Impact: Almost all concessions were in financial difficulty and had to be renegotiated soon after they opened for traffic.</td>
<td>Compensation: (1) Tariffs were lowered substantially in an attempt to improve the utilization of the roads; (2) Durations of the concessions were extended; (3) payback period was extended for the debt and the interest rate was shifted from a very high nominal interest rate to a more realistic real interest rate; (4) increase in the consumer price index; (5) increase in the government’s equity contribution; and (6) reduction in the concessionaire’s investment obligations. Effects: Problems solved even though the government invested more funding into the projects.</td>
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<tr>
<td>Buenos Aires Water and Sanitation Project, Argentina (Guasch 2004)</td>
<td>Risk: (1) The government expanded the water and sanitation service to poor regions and replaced nitrate-contaminated wells; and (2) operation and maintenance costs increased faster than that indicated in the inflation formula included in the contract. Impact: The government required additional investment from the concessionaire.</td>
<td>Compensation: (1) Toll was increased 66.3% through renegotiations over 9 years; and (2) the government waived the excavation tax normally payable for digging trenches. Effect: Problems solved even though the government invested more funding into the projects.</td>
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<tr>
<td>Anhui Lai’An Metronic Water Supply Project, China (Metronic Global Berhad 2010)</td>
<td>Risk: The parent company withdrew from the project in order to streamline its resources on its core business and to divest its non-core businesses. Impact: The concessionaire failed to meet the investment commitment, and the project was terminated before construction completion.</td>
<td>Compensation: (1) The concessionaire was compensated RMB5,123,484 for construction works already completed based on the book-value method; (2) the concession rights, completed construction works, and related documents, materials and files were transferred to the government. Effect: The total investment of the concessionaire until the date of termination amounted to RMB6,856,321. The concessionaire suffered a loss of RMB1,732,839.</td>
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<tr>
<td>91 Express Lanes, USA (Wilbur Smith Associates Limited 2010)</td>
<td>Risk: The government stopped the uniqueness guarantee that prevented improvements to a nearby freeway. Impact: The government purchased the concessionaire’s interest in the franchise agreement.</td>
<td>Compensation: (1) The concessionaire was compensated a sum of US$207.5 million based on the market-value method; and (2) the rights of the concession and project assets were transferred to the government. Effect: The concessionaire received compensation much higher than its capital investment of US$134 million; the government was free to build a new freeway nearby.</td>
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</table>
5 RENEGOTIATION AND EARLY-TERMINATION MANAGEMENT

5.1 Overall Management Procedures
To effectively manage the various risks discussed in the above, appropriate contingency management measures should be developed in the procurement process, agreed by the government and the concessionaire, and incorporated into the PPP contract before financial close (HM Treasury 2007). In this regard, there is a need to develop transparent renegotiation and early-termination procedures to improve contingency management. Based on international PPP practices, this study has developed a standard procedure for renegotiations and early-terminations as shown in Figure 1.

5.2 Risk Assessment and Renegotiation/Termination Notice
After the occurrence of one or more risk events, the consequences of such events should be investigated, assessed and compared to the thresholds indicated in the contract. It is better to use quantitative indicators, such as debt service coverage ratio, loan life coverage ratio, revenue, service/product demand, and rate of return to the concessionaire, to judge whether renegotiation or early-termination can be triggered (Cruz and Marques 2013). If the lowest thresholds of one or more of these quantitative indicators have been met, renegotiation or early-termination can be triggered by a notice; otherwise, the contract continues. Such a renegotiation or early-termination notice should indicate the events occurred, consequences of these events to the party issuing the notice, evidence of such consequences and necessary particulars duly certified by independent auditors, and the issues to be renegotiated or the actions to be taken to terminate the contract.

5.3 Compensation in Renegotiation
The compensation should put the party in the same financial position as it would have occupied had there been no such risk events (National Highway Authority of India 2000). After receiving the renegotiation notice, the other party has to review and decide whether to accept it or not. If the notice is accepted, the government and the concessionaire will negotiate on the compensations to the party who suffered losses due to the risks happened. For example, methods to compensate the concessionaire could be toll adjustment, contract extension, government direct reimbursement, tax waiver, reducing performance requirements of facilities/services, reducing/deferring pre-agreed investment obligations, or a combination of these methods. Guasch (2004) and Cruz and Marques (2013) found that the first three approaches are most frequently used in practice.

5.4 Compensation in Early-Termination
A termination notice is served on the defaulting party, except in force majeure and voluntary termination events, within the time period specified in the contract for the default. Usually, a termination notice includes details of the risk events occurred, evidence of their effects on the obligations of the affected party, and any action proposed to mitigate these effects. After the termination notice has been made, there is still a chance for the defaulting party to rectify the situation. If the defaulting party rectifies the default event within the time period specified, the termination notice will be deemed to be revoked and the contract will continue. But if the defaulting party fails to implement any rectification program in accordance with its terms, the contract will terminate on a particular date after the date of notification to the defaulting party of such failure (HM Treasury 2007).

After early-termination has been confirmed, compensation is payable to the concessionaire in accordance with the agreement. Generally, the compensation can be made by retendering and non-retendering methods. In the retendering method, the highest bidding price is used for reference in determining the compensation amount. Book-value and market-value methods are two non-retendering methods. The book-value method estimates the book value of the project assets based on the unreimbursed investments and default responsibilities while the market-value method assesses the market value of the remaining concession considering the project’s future cash flows. The estimated book value or market value is used as the basis for compensation.

6 IMPROVING RENEGOTIATION AND EARLY-TERMINATION PRACTICES

6.1 Building Good Relationships
As a long-term contract with a wide range of uncertainties, a PPP project must be founded on a solid business relationship and a complex set of interactions characterized by cooperation and trust. Good relationships enable public and private partners to face unforeseen situations and difficulties in a productive and cooperative manner, which reduces the incidence of renegotiations and early-terminations. Although the project contract expresses the relationship between the government and the concessionaire, signing this contract is not closing a deal (Chan and Levitt 2011). Partners should devote more time and attention to the preliminary phase of deal-making to build a good relationship (Salacuse 2000).

6.2 Preparing Clear Contract Clauses
Compared with the way of writing rigorous agreements and reducing the chance of renegotiations and early-
terminations and then being forced to renegotiate or terminate agreements at a later time in an atmosphere of hostility, it is better for the partners to recognize the possibility of renegotiations and early-terminations at the outset and set down a clear framework within which to conduct the processes (Salacuse 2000). The review of international PPP contracts shows that the procedure for renegotiations has been taken lightly while that for early-terminations has been specified clearly. Hence procedure for renegotiations should be set down in detail so as to meet changing circumstances (Joshi and Anuradha 2009).

6.3 Minimizing Opportunistic Behavior

One reason for renegotiations and/or early terminations is the opportunistic behavior of the concessionaire. Sometimes, the concessionaire may offer excessively low prices during the bidding stage in order to win the contract and then force renegotiations after the financial close. In this way, the concessionaire could gain surplus profits because there is no competition during renegotiations (Ho 2006). Many opportunistic renegotiations have drained a huge amount of public funding to compensate the private sector, thus damaging the efficiency of PPP projects and destroying social surplus for end-users (De Brux 2010). Two approaches can be taken to address this issue of opportunistic behavior (Iossa et al. 2007). One is to establish in the contract a “freeze period” in which no renegotiation is allowed except that for force majeure. The other is to establish in the contract substantial fees against the concessionaire’s demand for renegotiations. The former will force the concessionaire to give up oppor-
tunistic behavior for renegotiations at the early stage of the contract and the latter will deter frivolous demands while opening a channel for serious ones.

6.4 Involving Competition

International experience shows that competition should be involved in the renegotiation process. In some countries, renegotiation of a contract after financial close violates competition law. For example, in India, renegotiation of certain specific clauses and overall restructuring of concession agreements is illegal due to competition concerns (Joshi and Anuradha 2009). A common practice would be that a supervising authority is in place to examine whether renegotiation processes or renegotiated terms in any way violate competition law. Examples of such supervising authority include the Competition Commission of India (Joshi and Anuradha 2009) and the Independent Commission against Corruption of Hong Kong (Zhang and Kumaraswamy 2001). In addition, the competitive retendering approach should be used when a renegotiation substantially changes the financial equilibrium. For example, for large-value changes in service, the competitive retendering approach is recommended to be used (HM Treasury 2007).

6.5 Looking for Win-Win Solutions

When a PPP project is in distress, public and private partners have to decide to renegotiate or early-termination. The best strategy for them is a Nash equilibrium in which a win-win solution is achieved and both sides have no incentive to deviate from the equilibrium solution (Ho 2006). In order to find the equilibrium, evaluating the payoffs of renegotiation against early termination for both partners is essential. A good practice to evaluate the payoffs is to involve a third party. In addition, exploring ways to create value in renegotiations also increases the payoffs for both partners. Making an atmosphere of problem-solving and joint-gain negotiation is an efficient way to create value (Salacuse 2000).

7 CONCLUSION

PPPs have been practiced worldwide for many years in the delivery of public works and services. As a long-term contract with a wide range of uncertainties, it is not rare in renegotiations or even early-terminations of PPP contracts in the international arena. Renegotiations and early-terminations could greatly reduce the strengths and advantages of PPPs. This has raised concerns from practitioners in both public and private sectors.

This study has identified eight categories of risk events that have been considered in contingency management in international PPP practices: relief events, compensation events, force majeure, default events, change-in-law, change-in-service, refinancing, and change-in-control. Renegotiations and early-terminations are usually caused by a combined effect of some risk events. A well-developed protocol for renegotiations and early-terminations is critical for both the government and the concessionaire. This study has developed a standard procedure for renegotiations and early-terminations based on international PPP practices. In general, it is recommended to consider renegotiation first and take early-termination as the last resort in dealing with various risk events.

The following points may be followed in order to effectively tackle problems in renegotiations and early-terminations: building good relationships between public and private partners, preparing clear contract clauses, minimizing opportunistic behavior, involving competition, and looking for win-win solutions.

ACKNOWLEDGMENT

This study is financially supported by the National Natural Science Foundation of China (Project Number: 71472052).

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