Common Problems Holding Back the Development of PPP in Hong Kong

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Outline of the Presentation

- Background of PPP in Hong Kong
- A Cross Border Case Study
  - The Hong Kong – Zhuhai – Macau Bridge
- Local Case Studies
  - Cross Harbour Tunnel
  - Western Harbour Tunnel
  - Asia World Expo
  - West Kowloon Cultural District
- Common Problems Observed From the Case Studies
- Conclusion – Overcoming the Problems
Public Private Partnership (PPP) has become an increasingly popular alternative for procuring large public works projects around the world. With the success seen from PPP leading countries such as Australia and the United Kingdom, Hong Kong has also been keen to get a taste.

“Arrangements where the public and private sectors both bring their complementary skills to a project, with varying levels of involvement and responsibility, for the purpose of providing public services or projects.”

(Efficiency Unit, 2008a)
Public sector

Category I Designer Led
- Lump Sum Contract (with bills of quantities or with drawings and specifications)
- Remeasurement Contract
- Term Contract
- Prime Cost Contract

Category II Design and Construct
- Employer’s Designer Novated
- Independent Designers
- Contract Designer

Category III Design, Construct and Operate
- Design Build Operate (DBO)
- Prime Contracting

Category IV Finance, Design, Construct and Operate
- Private Finance Initiative (PFI)
- PPP
- Build Operate Transfer (BOT)

Private sector

(Adapted from: Environment, Transport and Works Bureau, 2004)
Traditional approach

- Client dept. requests works dept. to design
- Client dept. and external experts form group to monitor project
- After planning and approvals are obtained, works dept. would call for tenders from private contractors to construct or to D&B
- Client dept. would conduct consultation with general public and Legislative Council Panels before obtaining financial endorsement
- Successful bidder is one that satisfies the minimum requirements specified by client dept. with respect to quality of service/product and scores highest mark in tender evaluation which weighs both the technical and cost aspects
- Works dept. monitors construction process
- After completion dept. inspect the works, upon satisfaction payment made to contractor

PPP approach

- Client dept. defines facility in terms of service required
- Client dept. and external experts form group to monitor project
- The group would prepare output-based performance spec. to request proposals for a private sector consortium to DBFOM facility for specified period
- Client dept. would conduct consultation with general public and Legislative Council Panels before obtaining financial endorsement
- Successful consortium bidder is one that satisfies the mandatory requirements specified with respect to ability of the facility to deliver the service required, the quality of design, construction and operation and on terms which provide best value for money
- Client dept. advisors deal solely with consortium, consortium will manage specialist contractors
- Client dept./third party verify facility to be fit for purpose before payment to consortium

(Adapted from: Efficiency Unit, 2008b)
A Cross Border Case Study

- The Hong Kong – Zhuhai – Macau Bridge
The Hong Kong - Zhuhai - Macau Bridge

(Source: Transport and Housing Bureau, 2008)
## Hong Kong - Zhuhai - Macau Bridge Continued…

<table>
<thead>
<tr>
<th>Route</th>
<th>Joining Lantau Island in Hong Kong to Perola in Macau and Gongbei in Xhuhai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>29.6 kilometres (main body)</td>
</tr>
<tr>
<td>Vehicle speed limit</td>
<td>100 kilometres per hour</td>
</tr>
<tr>
<td>Journey duration</td>
<td>15 to 20 minutes</td>
</tr>
<tr>
<td>Toll fee</td>
<td>$HK150 per vehicle</td>
</tr>
<tr>
<td>Construction cost</td>
<td>RMB37.4 billion</td>
</tr>
<tr>
<td>Traffic Flow</td>
<td>12000 – 16000 vehicles per day</td>
</tr>
<tr>
<td>Estimated Date of Construction Commencement</td>
<td>2010</td>
</tr>
<tr>
<td>Estimated Date of Completion</td>
<td>2015/ 2016</td>
</tr>
</tbody>
</table>

Note: 1 RMB = 0.1464 US$ (Yahoo, 2008)

(Source: Mak, 2008; Hong Kong Special Administrative Region Government, 2008; Chen and Lee 2008; Hung, 2008; Transport and Housing Bureau, 2008)
**Is BOT the Best Financing Model to Procure Infrastructure Projects?**

**Scenario 1:** Funded by the host governments with an investment return period equal to the bridge life of 120 years

<table>
<thead>
<tr>
<th>Total Investment</th>
<th>RMB72.7 billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings from private investor’s profits</td>
<td>RMB4.95 billion (under the BOT model, with a private investment of RMB30 billion calculated at a 16.5% return rate)</td>
</tr>
<tr>
<td>Usage per year</td>
<td>292,0000 (8000 per day)</td>
</tr>
<tr>
<td>Investment return period</td>
<td>120 years</td>
</tr>
<tr>
<td>Estimated cost per trip (daily maintenance cost not included)</td>
<td>(RMB72.7 billion – RMB4.95 billion) / RMB2.92 billion / 120 years = RMB$193</td>
</tr>
</tbody>
</table>

Note: 1 RMB = 0.1464 US$ (Yahoo, 2008)

(Source: Ming Pao, 2008)
### Scenario 2: Funded by the host governments with an investment return period of 60 years

<table>
<thead>
<tr>
<th>Total Investment</th>
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<tbody>
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<tr>
<td>Usage per year</td>
<td>292 0000 (8000 per day)</td>
</tr>
<tr>
<td>Investment return period</td>
<td>60 years</td>
</tr>
<tr>
<td>Estimated cost per trip (daily maintenance cost not included)</td>
<td>(RMB72.7 billion – RMB4.95 billion) / RMB2.92 billion / 60 years = RMB$387</td>
</tr>
</tbody>
</table>

Note: 1 RMB = 0.1464 US$ (Yahoo, 2008)
Is BOT the Best Financing Model to Procure Infrastructure Projects?

Scenario 3: Adopting the BOT model (financed, constructed and operated by private investors) with a return period of 30 years (typical BOT concession period in transportation projects)

<table>
<thead>
<tr>
<th>Total Investment</th>
<th>RMB72.7 billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage per year</td>
<td>292 0000 (8000 per day)</td>
</tr>
<tr>
<td>Investment return period</td>
<td>30 years</td>
</tr>
<tr>
<td>Estimated cost per trip</td>
<td>RMB72.7 billion / RMB2.92 billion / 30 years = RMB$830</td>
</tr>
</tbody>
</table>

Note: 1 RMB = 0.1464 US$ (Yahoo, 2008)

(Source: Ming Pao, 2008)
Reasons for government financing in the Hong Kong - Zhuhai - Macau Bridge

- Avoid further delay to project – previous experiences in changing procurement methods/ already proposed 25 years ago
- Legal differences between the three jurisdictions (difficult to have agreement unifying and compromising all legal systems)
- Lack of government control over the toll prices (bad experiences in the West and East Harbour Tunnels where the private consortia have charged high tolls)
Reasons for government financing in the Hong Kong - Zhuhai - Macau Bridge Continued…

- Private sector no longer as interested in the project as they were when the idea was first proposed due to changes and movements in industries over time
- Studies carried out by the governments showed that the business model would not be economically attractive enough for the private sector to be interested
- Avoid public perception of collusion between business and the government
- The three governments have comfortable financial reserves to deliver project
Local Case Studies

- Cross Harbour Tunnel
- Western Harbour Tunnel
- Asia World Expo
- West Kowloon Cultural District
Cross Harbour Tunnel

First BOT tunnel in HK, opened 1972, one of the most successful BOT projects

(Source: Kowloon Motor Bus 30X/230X, 2008)
Western Harbour Tunnel

Highly criticized for the increasing tolls, opened 1993

(Source: Forum Sara, 2008)
Asia World Expo

First proper PPP project in HK, opened 2005

(Source: Asia World Expo, 2008)
West Kowloon Cultural District

Originally PPP but now funded by government

(Source: Home Affairs Bureau, 2008)
Findings from Local Case Studies

- Traditional practice - directly form contract agreement with potential bidder (essential items for success neglected and risks not avoided)
- Some BOT projects often jumped straight into the project agreement neglecting important foundation work
- Practice of securing contracts quickly is common, but risks unpredictable
- PPP projects are conducted without thorough investigation into the feasibility of using the model in Hong Kong
- Some recent projects have been adopted appropriately by integrating international best practice
- Future PPP projects will be adopted well if the local government integrates lessons learnt from other jurisdictions with Hong Kong’s own experiences
Common Problems Observed From the Case Studies

1. Belief that public-private collusion exists
2. Over benefiting the private sector e.g. development rights
3. Lack of knowledge in the area of PPP
4. Local government has comfortable financial reserve
5. General public dissatisfaction
6. Unsuccessful experiences e.g. High toll prices
7. Local government’s indecisiveness e.g. changing delivery methods
8. Using the name to overcome approval obstacles e.g. from Legislative Council
Conclusion

- Overcoming the Problems
  - Problem identification / awareness
  - Avoid / minimize the problems
  - Continuous risk analysis
  - Education / training
  - Adequate transparency and public consultations
  - PARTNERSHIP ARRANGEMENT
References

Thank You!