The Role of Public-Private Partnerships

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4. What can PPP deliver?
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1. PPP’s – a broad definition and key stakeholders
What is PPP?

**Public Private Partnership (PPP)**

**Broad Definition**

- Partnership between the public sector and the private sector to design, develop, finance, construct and/or operate infrastructure projects.
- Offer solutions by taking innovation and efficiencies associated with the private sector and bringing these to bear on public sector projects.
- The PPP objective is to allocate responsibilities and risks to the partners who are best able to manage and mitigate those risks.
- “Win-win” situation for both the public and private sectors – in a very broad sense.
Models for Infrastructure Delivery

degree of private sector risk

degree of private sector involvement

Finance Only
Design – Build
Design – Build – Operate
Lease – Build – Operate
Build – Lease – Operate - Transfer
Build – Own – Operate - Transfer
Build – Own – Operate
Buy – Build – Operate
Full Privatisation

Government
Govt Corporations
Operation / Maintenance Service / License

4
## Types of infrastructure

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>- Road, rail, seaports, airports&lt;br&gt;- Often big ticket transactions &gt; $1,000m</td>
</tr>
<tr>
<td>Utilities</td>
<td>- Gas, water, electricity (excl. merchant/trading), telcos&lt;br&gt;- Largely regulated – significant entities and frequently publicly listed &gt; $1,000m</td>
</tr>
<tr>
<td>Social services</td>
<td>- Schools, health, aged care, waste services&lt;br&gt;- Numerous transactions, generally &lt; $500m</td>
</tr>
</tbody>
</table>

Typically, infrastructure offers essential services, has barriers to entry, strong market position.
### Who are the key stakeholders?

#### “Private Sector”

- **Sponsor Equity Investors:**
  - Construction companies participating in the construction and participating in the operations of the asset

- **Pure Equity Investors:**
  - Life insurance companies;
  - Pension Funds;
  - Asset management companies;
  - Hedge funds;
  - Specialist Infrastructure Funds; and
  - Macquarie Bank and its funds

- **Debt Investors – Bond Debt Issuers**
  - Financial institutions participating in the senior debt financing for the asset

- **Retail Investors - Investors who invested in financial markets**

#### “Public Sector”

- **Value for Money:**
  - Lower construction, operating costs, and more efficient maintenance
  - A third way in which governments may deliver some public services

- **Risk Transfer:**
  - Risk can be allocated to whichever party from the public or private sector is able to manage it best and at lowest cost

- **Incentives:**
  - PPPs assemble into one business entity all the parties involved in designing, constructing, operating and (most often) financing the project.
  - As payments do not commence until the asset is built and has started to operate and penalties apply if construction is delayed, there is a strong incentive for the consortium to complete the project on time.
2. PPP trends
Why is it important to take a broader view

>> Nominal GDP growth 2004-2014

Strong economic growth is expected to underpin infrastructure investment in developing countries, with emerging Asia to lead the trend.
Why is it important to take a broader view

Public Transportation Infrastructure - Case Study 1

Projected volume of planned investments in public-transportation infrastructure for selected countries, 2005–2010

<table>
<thead>
<tr>
<th>Total investments, %</th>
<th>Public-private-partnership investments, $ billion</th>
<th>Public-private-partnership investments as % of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% = $3 trillion</td>
<td>Total = $330 billion</td>
<td>11% of all planned investments</td>
</tr>
<tr>
<td>Seaports</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Rail</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Roads</td>
<td>145</td>
<td>7</td>
</tr>
<tr>
<td>Airports</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

1 Global total extrapolated from country data weighted by GDP; for Australia, Brazil, China, France, Germany, India, Italy, Japan, Portugal, Russia, South Korea, Thailand, United Kingdom, and United States; breakdown by transportation mode not available for Australia and Portugal.

2 Estimated value of required private investment in publicly owned infrastructure.

Source: Dealogic; McKinsey analysis
Public Transportation Infrastructure - Case Study 2

The regional landscape

Projected volume of planned investments in public-transport infrastructure by region, 2005–2010, $ billion

<table>
<thead>
<tr>
<th>Total, %</th>
<th>By region, $ billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% = $330 billion</td>
<td>East Asia</td>
</tr>
<tr>
<td>Seaports 6</td>
<td>Rail 63</td>
</tr>
<tr>
<td>Roads 44</td>
<td>Roads 42</td>
</tr>
<tr>
<td>Rail 48</td>
<td>Seaports 19</td>
</tr>
<tr>
<td>Airports 2</td>
<td>Airports 44</td>
</tr>
<tr>
<td></td>
<td>Total 90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By region</th>
<th>$ billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia</td>
<td>Rail 63</td>
</tr>
<tr>
<td>Western Europe</td>
<td>Roads 28</td>
</tr>
<tr>
<td>United States</td>
<td>Rail 43</td>
</tr>
<tr>
<td>Rest of world</td>
<td>Seaports 49</td>
</tr>
<tr>
<td></td>
<td>Total 118</td>
</tr>
</tbody>
</table>

1Based on project start date; global total extrapolated from country data weighted by GDP; for Australia, Brazil, China, France, Germany, India, Italy, Japan, Portugal, Russia, South Korea, Thailand, United Kingdom, and United States.
2Figures do not sum to total, because of rounding.

Source: Dealogic; McKinsey analysis
3. PPPs – Global “State of Readiness”
The readiness is all

Country attractiveness

1 ‘Proceed with caution’  2 ‘Emerging opportunities’  3 ‘Hot spots’

Planned infrastructure spending (public and private), 2015–2010, $ billion

Public-private-partnership readiness

1 Recent plans indicate even larger opportunities in the future.
2 Average of score on scale of 1 to 5, where 1 equals least ready and 5 equals most ready; measured across 9 dimensions, e.g., is there a robust legal and institutional framework in place?

Source: McKinsey & Co
→ A series of individual markets with unique features
→ Local players often dominate
→ Foreign money can be a catalyst but access to domestic capital is important
→ Majority/controlling stakes not usually available to ‘foreigners’
→ International experience relevant (sort of) – technical/operational
### Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Characteristics</th>
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</table>
| Korea    | Macquarie is the market leader in PPP transactions  
          | Very sophisticated PPP regime in place  
          | Government remains eager for private investment in infrastructure |
| China    | Perception of political risk but some private infrastructure already in place  
          | Local players dominate |
| India    | An emerging market with huge potential  
          | Political risk may be significant |
| Japan    | Recent PPP deals transfer little risk  
          | Local players dominate |
| Thailand | Lots of local players with most essential services having privately run options |
| Singapore| Establishing pipeline of PPP projects, handful complete  
          | Government keen to set a regional example |
| Malaysia | Well establish private participation across many infrastructure sectors  
          | Locals dominate in a sophisticated market |
| Taiwan  | Government control the provision of most essential services  
          | New transport initiatives and health care have private involvement |
| Philippines | Opportunistic market – foreign players in private power generation  
              | Listed market getting deeper in past 24 months |
| Indonesia | Government control the provision of most essential services  
            | Power generation, some water and some telco services are exceptions |
| Hong Kong | Private tollroads, utilities and many essential services  
           | Sophisticated market |
Macquarie Assets Throughout Korea

**RAIL & ROADS**
- New Airport Highway
- Cheonan Nonasan Expressway
- Kwangju 2nd Beltway Section 1
- Kwangju 2nd Beltway Section 3
- Seoul~Dongducheon Expressway
- Seoul Subway #9
- Woomyeonsan Tunnel
- Anyang~Sungnam Expressway
- Yongin LRT
- Inchon Grand Bridge
- Cheonan Nonasan Expressway
- Daegu~Busan Expressway
- Daejon Riverside Expressway
- Daegu East Circulation Road
- Hwangryungsan Tunnel
- Baekyang Tunnel
- Seoul~Gangneung Expressway
- CJ CableNet

**PROPERTY**
- Daewoo Securities Building
- SKC Yoido Building
- Tongyang Building
- Kukdong Building
- Tongyang Building

**Total Project Value:** +US$20bn

**Equity under management:** +US$3bn
### Global Markets

<table>
<thead>
<tr>
<th>Country</th>
<th>Highlights</th>
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</table>
| **Australia** | - Good pipeline of opportunities but very competitive  
- Implementation and private sector risk proven  
- Utilizing strong capital markets (debt/equity) for private finance  
- Many Australian investors now looking for offshore opportunities |
| **Canada** | - Most infrastructure constructed between 1950 and 1980  
- Provincial or municipal governments are responsible for most projects  
- Most activity in British Columbia, Ontario, Alberta and Quebec |
| **Europe** | - Substantial pipeline in Ireland, various successes in France  
- Local players dominate in France and Spain  
- Slower progress in Germany  
- Most opportunities in Ireland and Benelux |
| **UK** | - Basically all infrastructure has been privatised  
- PFI program a positive experience: 78% construction under/on budget; 76% construction early/on time  
- Tender process slow, but 200+projects in pipeline worth £26 billion over next 5 years |
4. What can PPP deliver?
What can PPP deliver?

<table>
<thead>
<tr>
<th>Economic Reality</th>
<th>Gov’t Objective</th>
<th>Solutions</th>
<th>Result</th>
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</thead>
<tbody>
<tr>
<td>• Increasing Levels of Economic Development</td>
<td>• Develop efficient and effective infrastructure</td>
<td>PRIVATE INVESTMENT IN INFRASTRUCTURE</td>
<td>• Provides better Infrastructure – delivers improved and better value for money through appropriate risk sharing between public and private sector parties</td>
</tr>
<tr>
<td>- Currently over 350 infrastructure companies in the listed universe, 7% of the world’s market capitalisation</td>
<td>• Develop bond and equity markets (eg Korea as a financial hub)</td>
<td></td>
<td>• Enhances the economy – better infrastructure = better logistics and better social mobility</td>
</tr>
<tr>
<td>• Changing Demographics in North Asia and Korea</td>
<td>• Grow and utilise the national savings pool</td>
<td></td>
<td>• Improves Capital Markets – Develops Debt and equity markets</td>
</tr>
<tr>
<td>- To build their wealth through sophisticated financial markets.</td>
<td>• Enhance community services</td>
<td></td>
<td>• Provides better services to the community – The urban population in East Asia and the Pacific region could rise by 500m over the next 20 years. Tremendous pressure on existing urban infrastructure.</td>
</tr>
<tr>
<td>- Aging Population</td>
<td>- 2.4 billion people globally do not have access to sanitation, 2.5 billion to modern energy supplies, 1.2 billion to safe drinking water and 1 billion to roads to reach markets, jobs and health care facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Competitive and changing economy</td>
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<tr>
<td>- FTA, Interest rates, Oil</td>
<td></td>
<td></td>
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<tr>
<td>- More competition amongst developed markets and emerging markets (eg BRIC – Brazil, Russia, India, and China)</td>
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<tr>
<td>• Government Capital outlay constrained by Balanced Budget</td>
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<tr>
<td>• Ever-growing pressure on equity investors and public funds looking for investment</td>
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</table>
Why it is important to take a broader view of PPP?

**Government Sector**
- Huge Need for Improving Fixed Asset Infrastructure
- Improve Capital Budget Limitation
- Providing New Opportunities Capital Market
- Frees up more Capital for Other SOC & Other Social Programs

**Private Sector**
- New/Enhanced Investment Opportunities for institution and individuals
- Mobilize More Private Capital including foreign investors
- Development of Local and Regional Capital Markets - IPO’s Bonds, etc

**Increase Private Sector Investment in Infrastructure**
- Frees up more capital for other SOC & Other Social Programs
5. The future
How to improve PPP in the future

**Overall**

- Need to understand the challenges of PPP’s and to be committed to continuous improvement in the delivery model
- Ability to deliver is crucial
- Partnership
  - The best approach is one founded on collaboration
  - Great partnerships are value-driven and great partners put people first
  - Need for in-house experience and expertise working with and for Governments
- Bidding for complex PPPs is time consuming and expensive
  - Complex financial contracts
  - Commitments to future payments
  - Complex institutional checks
- Government should understand big picture, i.e. how PPP can deliver better infrastructure and faster
  - Agencies need to be better coordinated
How to improve PPP in the future

**Keys to Success**

→ **Capital Markets**
  - Stock exchange and securities should be encouraged to understand new approaches like PPP

→ **Investors**
  - Investors need to be better educated on benefits of long term investment
  - Need better understanding of the importance of asset management

→ **Banks**
  - Need to be sensitive to risk analysis
  - Instead of relying on Government, need to analyze more about the business itself

→ **Advisors**
  - Develop advanced financing models and diversified financing sources not just limited to domestic markets but also international markets.

→ **Government**
  - Needs to be certain about big picture benefits
  - Privatizing of existing assets should be given more consideration, could add greatly to capitalization of Korea's equity market
Conclusion

There is a very real and immediate imperative for increasing PPP’s globally

PPP’s can:

- Promote innovation
- Attract and promote both short term and long-term private investment and expertise
- Allow Government to retain public provision of services through good regulations
- Bring environmental, social and community benefit

The Virtuous Cycle – More interest and investment in infrastructure and social infrastructure, better transport and social services:

- Improves private and public sector participation
- Assists capital market development and
- Leads to stronger economy
- Brings in foreign investors (usually via listings)