Project Financing In The Emerging Markets
Project Financing In The Emerging Markets — Infrastructure

**Economic infrastructure**

- Transport
  - Land
    - Road networks
    - Rail networks
    - Public local transport
  - Water
    - Inland waterways
    - Overseas waterways
    - Ports
  - Air / Aviation
    - Airport services
    - Airline services
    - Air control

- Supply

- Disposal

- Communication

**Energy**

- Electricity
  - Coal
  - Oil
  - Gas
  - Nuclear
  - Renewable
    - Sun
    - Water
    - Wind
    - Biomass

- Gas

- Waste
  - Domestic waste
  - Industry waste

**Water**

- Drinking water
  - Domestic
  - Industrial

- Waste water
  - Rain water
  - Waste water
    - Domestic
    - Industrial

**Social infrastructure/ Public real estate**

- Health
  - Diagnostic
  - Therapy / treatment
  - Care
  - Rehabilitation

- Senior citizen

- Education
  - Children
  - Teenagers
  - Adults
  - Pensioners

- Culture

- Sport / leisure
  - Popular / mass sport
  - Professional sport

- Administration

- Security
  - Prisons
  - Police
  - Defence
Project Financing In The Emerging Markets – Risk Distribution

Internal Rate of Return (Gross IRR) and multiples of realised investments across regions (n = 478)

<table>
<thead>
<tr>
<th></th>
<th>Total (n = 478)</th>
<th>Europe (n = 229)</th>
<th>USA (n = 210)</th>
<th>Asia (n = 14)</th>
<th>Others (n = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross IRR (in %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>34.22</td>
<td>50.85</td>
<td>16.45</td>
<td>66.88</td>
<td>12.87</td>
</tr>
<tr>
<td>Median</td>
<td>18.43</td>
<td>21.48</td>
<td>14.71</td>
<td>29.02</td>
<td>23.48</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>189.72</td>
<td>246.56</td>
<td>115.16</td>
<td>146.96</td>
<td>64.76</td>
</tr>
<tr>
<td>Multiple (n = 481)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mean</td>
<td>2.43</td>
<td>2.38</td>
<td>2.42</td>
<td>2.66</td>
<td>2.92</td>
</tr>
<tr>
<td>Median</td>
<td>1.73</td>
<td>1.78</td>
<td>1.59</td>
<td>1.86</td>
<td>1.84</td>
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<tr>
<td>Standard deviation</td>
<td>3.03</td>
<td>2.30</td>
<td>3.51</td>
<td>2.41</td>
<td>4.72</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Construction (n = 85)</th>
<th>Environment (n = 55)</th>
<th>Logistics (n = 61)</th>
<th>Natural Resources / Energy (n = 190)</th>
<th>Transportation (n = 59)</th>
<th>Waste (n = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross IRR (in %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>34.92</td>
<td>-13.21</td>
<td>35.17</td>
<td>52.17</td>
<td>27.09</td>
<td>16.43</td>
</tr>
<tr>
<td>Median</td>
<td>26.94</td>
<td>-18.54</td>
<td>28.03</td>
<td>17.47</td>
<td>23.76</td>
<td>23.57</td>
</tr>
<tr>
<td>Multiple (n = 87)</td>
<td></td>
<td></td>
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<tr>
<td>Mean</td>
<td>2.70</td>
<td>1.50</td>
<td>2.74</td>
<td>2.53</td>
<td>2.23</td>
<td>2.54</td>
</tr>
<tr>
<td>Median</td>
<td>1.81</td>
<td>0.53</td>
<td>2.07</td>
<td>1.70</td>
<td>1.89</td>
<td>1.69</td>
</tr>
</tbody>
</table>

Source: Cepres, Infrastructure as An Asset Class
Where are Emerging Markets?

- Countries in Asia…except Singapore & Malaysia, Japan, South Korea
What Is Project Finance?

- Project Company financially & legally independent from sponsors
- Lenders have limited or no recourse to the sponsors
- Project Assets given as security
- Cash-flow is enough for operating costs & debt service
- Risks are allocated to parties best able to manage risks
Why Do Sponsors Use Project Finance?

- Eliminate or reduce lenders’ recourse to sponsors
- Maximise the leverage of a project
- Circumvent any restriction or covenants binding the sponsors under their financial obligations
- Project isolation
  - Avoid negative impact of a project on credit standing of the sponsors
  - Obtain better financial conditions when credit risk of project is better than credit standing of sponsors
- Allow lenders to appraise the project on a stand-alone basis
  - Identify and quantify risks of construction, operation
  - Exercise on-going supervision and monitoring
- Reduce political risks
Project Financings In The Emerging Markets - Organisation of Project Finance

- Government
- Sponsors
- Lenders
- Off-taker
- BORROWER Project Company
- Suppliers
- Operator/ Technical
- Constructor/ Equipment Supplier

- Constructor/ Equipment Supplier
- Operator/ Technical
- Suppliers
- Off-taker
- Government
- Sponsors
- Lenders
Project Financing In The Emerging Markets – Security Arrangement

**BORROWER**

**Project Company**

- **Off-take Agreement**
- **Supply Agreement**
- **O&M Agreement/ Technical Assistance Agt**
- **EPC Contract**

**O&M Services**

**fee**

**Constructors/ Equipment Supplier**

**Suppliers**

- **Payment for Supplies**
- **Output (revenues)**

**Government**

- **Concession Contract, Permits**

**Off-taker**

- **Off-take Agreement**

**Sponsors**

- **Subscription Agt, Cash Contribution Agt**
- **Shares/ Subordinated Loans**

**Lenders**

- **Financial Agreement**
- **Credit Enhancement**
- **Project Participants/ Third Interested Parties**

**Operator/ Technical**

- **Debt Financing**
- **Debt Services**

**Suppliers**

- **Construction Services**
- **Turnkey price**

**Constructors/ Equipment Supplier**

- **Debt Financing**
- **Debt Services**

**Project Financing In The Emerging Markets – Security Arrangement**
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Advisory</th>
<th>Project analysis</th>
<th>Risk analysis</th>
<th>Financing</th>
<th>Implementation &amp; monitoring</th>
</tr>
</thead>
</table>
| **Objectives**    | • Clarification / analysis of general bankability / financial & economic viability  
  • Structuring of financing | • Specific bankability & economic viability / sustainability  
  • Assess essential precondition for PF | • Detailed risk analysis  
  • Optimal risk distribution  
  • Cost minimisation | • Development of viable financing | • Implement project  
  • Monitor if project develops according to plan & meets all covenants & milestones |
| **Participants**  | • Consultants  
  • Sponsors  
  • State / government | • Consultants  
  • Sponsors & state  
  • Banks (& finance investors)  
  • Experts | • Consultants  
  • Sponsors & state  
  • Experts  
  • Insurances  
  • Banks (& finance investors) | • Consultants  
  • Sponsors & state  
  • Banks & finance investors | • Sponsors & state  
  • Banks & finance investors |
| **Time required** | • 6 – 12 months | • 2 – 6 months (stand-alone); 3 – 9 months (integrated) | • 1 – 3 months | • 1 – 3 months | • Term of project and of financing |
| **Results**       | • PF not suited for financing the project or  
  • PF suited for financing the project | • PF of potentially involved parties not considered doable or  
  • Continue risk analysis | • Abandon project or  
  • Structure financing | • Financing not viable/ sustainable and/or economical or  
  • Implement project | • Implementation according to plan & finalise project |
Project Financing In The Emerging Markets – Risks

Risk phases in a project finance

- Engineering & Construction Phase
- Start-Up Phase
- Operation Phase

Project Finance Risks

- Construction & Completion Risk
- Technology Risk
- Marketing & Operating Risk
- Supply risk
- Financial risk
- Political Risk
- Legal risk
- Environmental risk

Debt Service
Project Financing In The Emerging Markets – Power Project

**Financing Structure**

**Facility** | Syndicated 5-year Term Loan Facility
--- | ---
**Size** | US$20,000,000
**Borrower** | Subsidiary of a SGX listed company
**Purpose** | To partially finance the project cost of 3 power generation sets totaling 19.5MW in the power plant project located in Cambodia.
**Offtake Agreement** | Long-term offtake agreement with economic zone developer
**Security** | Including:
- Mortgage of land title deed
- Assignments of power purchase agreement and insurance
- Debenture over fixed and floating assets of the Borrower
- Charge over accounts
- Pledge of shares
- Corporate guarantee
**Final Maturity** | 5 years
### Project Financing In The Emerging Markets – Agriculture Project

#### Financing Structure

<table>
<thead>
<tr>
<th>Facility</th>
<th>Club 5-year Term Loan Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>US$6,000,000</td>
</tr>
<tr>
<td>Borrower</td>
<td>Subsidiary of a SGX listed company</td>
</tr>
<tr>
<td>Purpose</td>
<td>To partially finance the capital expenditure requirement for 10,000 + ha of agriculture plantation in Cambodia.</td>
</tr>
<tr>
<td>Offtake Agreement</td>
<td>Long-term offtake agreement with economic zone developer</td>
</tr>
<tr>
<td>Security</td>
<td>Including:</td>
</tr>
<tr>
<td></td>
<td>• Mortgage of land title deed</td>
</tr>
<tr>
<td></td>
<td>• Debenture over fixed and floating assets of the Borrower</td>
</tr>
<tr>
<td></td>
<td>• Charge over accounts</td>
</tr>
<tr>
<td></td>
<td>• Pledge of shares</td>
</tr>
<tr>
<td></td>
<td>• Corporate guarantee</td>
</tr>
<tr>
<td>Final Maturity</td>
<td>5 years</td>
</tr>
<tr>
<td>Other Support</td>
<td>International Enterprise Singapore Internationalisation Finance Scheme</td>
</tr>
</tbody>
</table>
## Project Financing In The Emerging Markets - Water and Wastewater Project

### Financing Structure

<table>
<thead>
<tr>
<th>Facility</th>
<th>Amortising Term Loan with warrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>S$5,000,000</td>
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<tr>
<td>Borrower</td>
<td>Holding Company Pte Ltd</td>
</tr>
<tr>
<td>Purpose</td>
<td>To part-finance the Borrower’s industrial waste water treatment plant in Shandong, China.</td>
</tr>
<tr>
<td>Concession Agreement</td>
<td>30-year Concession Agreement for Phase 1 (20,000 m3/d); Phase 2 (40,000 m3/d)</td>
</tr>
<tr>
<td>Security</td>
<td>Including:</td>
</tr>
<tr>
<td></td>
<td>- Pledge of shares of Subsidiary Company Pte Ltd (Singapore incorporated) that holds 80% in the Project Company;</td>
</tr>
<tr>
<td></td>
<td>- Pledge of shares of 80% stake in the Project Company held by Subsidiary Company Pte Ltd;</td>
</tr>
<tr>
<td></td>
<td>- First legal charge over the fixed and floating assets of Subsidiary Company Pte Ltd;</td>
</tr>
<tr>
<td></td>
<td>- Charge of the Debt Service Account;</td>
</tr>
<tr>
<td></td>
<td>- Assignment of the Joint Venture Agreement between Subsidiary Company Pte Ltd and the Chinese Provincial Government;</td>
</tr>
<tr>
<td></td>
<td>- Assignment of the Technical Support or Management Agreement between Subsidiary Company Pte Ltd and Project Company; and</td>
</tr>
<tr>
<td></td>
<td>- Letter of Support of certain directors</td>
</tr>
<tr>
<td>Final Maturity</td>
<td>3 years + 2 years (if extend)</td>
</tr>
<tr>
<td>Other Support</td>
<td>Approval of IES Internationalisation Finance Scheme</td>
</tr>
</tbody>
</table>
• Know your business / joint venture partners
• Balance of Interests
• Country Risk
  • Expropriation risk
  • Security enforcement risk
• Know Your Customers
  • AML
• Engage other working partners
  • consultants, legal counsels, financiers
Project Financing In The Emerging Markets – Coverage Area

- Myanmar
- Thailand
- Laos
- Philippines
- Vietnam
- Cambodia
- Malaysia
- Brunei Darussalam
- Singapore
- Indonesia
Project Finance Advisory

**Structuring**
- Undertake due diligence
- Identify key risks and mitigants
- Develop financial model
- Identify banks, multilateral agencies etc
- Sound out market appetite
- Optimise financing structure

**Sourcing**
- Prepare Information Memorandum
- Structures indicative termsheet
- Solicit financing bids from funding network
- Assist clients to appoint consultants/lawyers

**Assessment / Negotiation**
- Evaluate financing proposals with client
- Facilitate negotiation with financial institutions
- Advise client to select banks/arrangers
- Support clients to negotiate term sheet

**Financial Close**
- Assist clients to finalise documentation