



Strengthening Private Sector Participation for Infrastructure in the Pacific Region

Cost of Capital and Risk Pricing
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In this session we will cover...

- ▶ Importance of identifying and analysing project risk
- ▶ Risk transfer and management
- ▶ Project risk categories
- ▶ Risk mitigating strategies for Sponsors

Importance of identifying and analysing project risk

- ▶ The essence of any project financing!
- ▶ Finance raised on the basis of contractual risk transfer and allocation
- ▶ Detailed analysis required at the outset
- ▶ Involves all parties to the project

Ground Rules

- ▶ Risk should be assumed by the party best able to manage and control that risk (and thus best price it)
- ▶ Risks should not be “parked” with the Project Company
- ▶ Risk transfer and allocation should be undertaken prior to detailed work on the project documentation

Risk Categories

- ▶ Every project is different...
- ▶ Helpful to categorize risk according to project phase:

Construction	Operation	Common to both
<ul style="list-style-type: none">▶ Construction Risk (also known as completion risk, development or cost-overrun risk)	<ul style="list-style-type: none">▶ Operating Risk▶ Market / Off-take Risk▶ Supply / Resource Risk	<ul style="list-style-type: none">▶ Political Risk▶ Environmental Risk▶ Interest Rate Risk▶ Foreign Exchange Risk▶ Force Majeure Risk

Construction Risk

- ▶ Construction phase carries substantial risk for the financier
- ▶ Common concerns for financiers:
 - ▶ Type of contract
 - ▶ Price
 - ▶ Completion date
 - ▶ Supervision
- ▶ This risk is not usually taken by financiers in project lending

Mitigating Construction Risk

- ▶ Commonly employed mechanisms used by lenders prior to construction commencing include:
 - ▶ Completion tests
 - ▶ Completion guarantees
 - ▶ Turnkey contract
 - ▶ Overrun undertakings
- ▶ During construction, lenders may make drawdowns conditional on expert certification

Operating Risk

- ▶ Project facility can be operated and maintained at levels designed?
- ▶ Common concerns for financiers:
 - ▶ Experience of the operator (track record)
 - ▶ Technology
 - ▶ Staff and skills
 - ▶ Responsibility for operating costs
- ▶ Independent Operator or Sponsor = Operator

Mitigating Operating Risk

- ▶ Prior to lending:
 - ▶ Reputable and financially sound operator
 - ▶ Proven technology
- ▶ During the loan period:
 - ▶ Detailed reports on the operations
 - ▶ Use of a proceeds account and reserve accounts
 - ▶ Lenders cover ratios

Market / Off-take Risk

- ▶ Two principal risk elements:
 - ▶ A market for the products (or services)
 - ▶ That the price is sufficient to service all fixed costs (including the project debt)
- ▶ Use of off-take contracts
- ▶ Common concerns for financiers, if no off-take
 - ▶ Ready market for the products
 - ▶ Delivery of the product



Mitigating Market / Off-take Risk

- ▶ Difficult risk to cover
- ▶ Use of independent market studies
- ▶ ‘Take-or-Pay’ contracts:
 - ▶ Contract between Project Company and third party
 - ▶ ‘Hell or high water’ clauses
 - ▶ Third party may be a Sponsor

Supply / Resource Risk

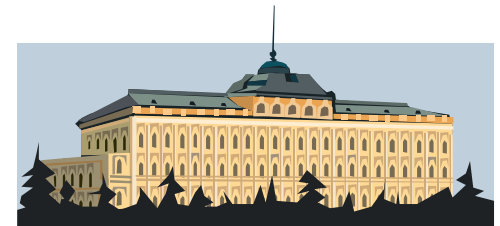
- ▶ Inadequate production inputs to produce adequate project returns
- ▶ Issue associated with input:
 - ▶ Quantity
 - ▶ Quality
 - ▶ Price

Mitigating Supply / Resource Risk

- ▶ Commonly employed mechanisms used by lenders include:
 - ▶ Experts' reports
 - ▶ Requiring long term supply contracts
 - ▶ Obtaining guarantees that there will be a minimum level of inputs

Political Risk

- ▶ Two principal risk elements:
 - ▶ The danger of political and financial instability within a given country
 - ▶ Impact of government action (or inaction) on the cash flow generating capacity of a project
- ▶ Political risk:
 - ▶ Governmental concessions
 - ▶ Crucial to a country's infrastructure or security



Mitigating Political Risk

- ▶ Use of Multilateral Agencies (e.g. World Bank, EBRD) is most effective
- ▶ Other mitigating strategies lenders may use:
 - ▶ Export Credit Agency support
 - ▶ Obtaining government assurances
 - ▶ Offshore banking accounts

Environmental Risk

- ▶ Not simply a sub-set of political risk
- ▶ Three major types:
 - ▶ Emissions from the daily operations
 - ▶ Consequences of major disasters
 - ▶ Contextual risk

Mitigating Environmental Risk

- ▶ Commonly employed mechanisms used by lenders include:
 - ▶ Environmental impact assessment study (conformity with Equator Principles)
 - ▶ Seek compliance of EPC contractor

Interest Rate Risk

- ▶ Interest rate risk doesn't exist under fixed rate loans
- ▶ However, project finance loans are often issued on floating rate basis
 - ▶ LIBOR + Margin
- ▶ Risk if interest rates escalate uncontrollably and negatively impacts cash flows



Mitigating Interest Rate Risk

- ▶ Hedging to minimise risk using:
 - ▶ Interest rate swaps
 - ▶ floating to fixed
 - ▶ 100% of the risk may not need to be covered
 - ▶ **to a lesser extent interest rate caps, collars, and other investments**

Foreign Exchange Risk

- ▶ Includes the risks that:
 - ▶ depreciation in the loan currencies may increase the costs of construction
 - ▶ a depreciation in the revenue currencies may cause a cash flow problem
- ▶ Lenders will look to avoid this risk

Mitigating Foreign Exchange Risk

- ▶ Lenders will look for a natural hedge
- ▶ Examples:
 - ▶ Match the loan currency to the underlying currency in which the price of the product/tariff/toll is set
 - ▶ Match equipment purchases to the sales revenue currency
- ▶ Foreign exchange swaps (unusual in project finance)

Force Majeure Risk

- ▶ The risk of events which render the construction or operation of the project impossible. This can be:
 - ▶ a temporary problem
 - ▶ a permanent problem
- ▶ Difficult area in negotiating project contracts
- ▶ Lenders are concerned it could affect the Project Company's ability to service debt

Mitigating Force Majeure Risk

- ▶ The main mechanism is insurance
- ▶ There are force majeure events that cannot be covered
- ▶ Additionally, if cover is available, it is at a cost that is commercially unattractive