

LECTURE NOTE ON RISK MANEGEMENT

1 Categories of risks in PPPs (page 172, Grimsey&Lewis 2004)

- 1.1 technical risk, due to engineering and design failures
- 1.2 construction risk, because of faulty construction techniques and cost escalation and delays in construction
- 1.3 operating risk, as a result of higher operating costs and maintenance costs
- 1.4 revenue risk, e.g., because of traffic shortfall or failure to extract resources, the volatility of prices and demand for products and services sold (e.g., minerals, office facility, etc.) leading to revenue deficiency
- 1.5 financial risks arising from inadequate hedging of revenue streams and financing costs
- 1.6 *force majeure* risk, involving war and other calamities and acts of God
- 1.7 regulatory/political risks, resulting from planning changes, legal changes and unsupportive government policies
- 1.8 environmental risks, because of adverse environmental impacts and hazards
- 1.9 project default, as a result of failure of the project from a combination of any of the above

2 Principles of risk transfer

2.1 QUESTION: *Who can bear risks in a PPP project?*

- ✓ public authority
- ✓ project company
- ✓ sub-contractors
- ✓ insurance
- ✓ sponsors (leading investors)
- ✓ end-users

Who else?

2.2 QUESTION: *Is the public authority willing to or expected to take project risks in a PPP project to ensure the benefits of PPPs?*

“..., the main purpose of risk transfer from the public-sector point of view is to ensure that the Project Company and its investors are appropriately incentivised to provide the service which is the subject of the PPP Contract.” (page 243, Yescombe 2007)

2.3 QUESTION: *Is it ideal or worthwhile getting all risks transferred from the public sector to the private sector?*

“But it will not offer the best VfM for a Public Authority to try to transfer risks which are so difficult for the Project Company, its lenders or Subcontractors to limit or control, that if they do take them on they must charge heavily for doing so.” (page 243, Yescombe 2007)

VfM: “Value for money, the combination of risk transfer, whole-life cost and service provided by the Facility, as a basis for deciding what offers the best value to the Public Authority.” (page 349, Yescombe 2007)

2.4 QUESTION: *What criteria do you think of when you are asked to decide who should take a particular risk?*

“The principle is that risks should be transferred to those best able to control them at the lowest cost.” (page 243, Yescombe 2007)

“This also implies that whoever assumes the risk must have the freedom to handle it as they think best.” (page 243, Yescombe 2007)

2.5 QUESTION: *How would lenders react if the project company retained a certain risk? And why do lenders so react?*

“As far as lenders are concerned, a risk which is transferred to and retained by the Project Company means that it effectively becomes the lenders’ risk, because the Project Company has limited resources to bear any risks:” (page 243, Yescombe 2007)

Recall the key features of “project finance” (or “limited-recourse finance”).

“As far as possible, therefore, the lenders wish the Project Company to be an ‘empty box’, with all its risks reallocated elsewhere. In other words, lenders are very reluctant to accept any but the most limited (and clearly-measurable) risks.” (page 243, Yescombe 2007)

2.6 QUESTION: *Why are lenders so reluctant and cautious to assume risks?*

“..., lenders have no ‘upside’—i.e. the lenders’ return is fixed, whereas the equity return can be improved by generating more value in the project (e.g. by more efficient operation, or financial restructuring ...).” (page 244, Yescombe 2007)

2.7 QUESTION: *Who do you think should take risks related to “foreign currency availability and transfer”, “a change in law”, “site acquisition”, “construction”, or “usage or demand”?*

3 Risk management in practice

3.1 QUESTION: *What is the lesson learned from the Hub River dispute?; and do you think of any risk mitigation measures other than the cover afforded by institutions such as the World Bank and bilateral public entities such as the JBIC?*

3.2 QUESTION: Which one of the underlying causes listed below do you think is the most critical for the failure of the SCCT (Sydney Cross City Tunnel) project?

- a. inaccurate traffic forecast
- b. high toll levels
- c. government closing off the surface roads to direct the traffic into the CCT
- d. flawed concession agreement
- e. the public client and the private consortium arguing openly in public
- f. no toll subsidy and/or compensation from the government
- g. the toll level or the possibility of a government contribution was not open to negotiation

This lecture note is prepared mainly based on the following:

Chapter 14 (pages 242-248) of Yescombe, E.R. (2007). *Public-Private Partnerships—Principles of Policy and Finance*. Burlington and Oxford: Butterworth-Heinemann.

Chapter 7 (pages 171-195) of Grimsey, D. and Lewis, M.K. (2004). *Public Private Partnerships: The Worldwide Revolution in Infrastructure Provision and Project Finance*. Cheltenham and Northampton: Edward Elgar.

Tiong R & Anderson J A (2003). Public-private partnerships risk assessment and management process: the Asian dimension. In: Akintoye A, Matthias B & Hardcastle C (eds). *Public-Private Partnerships: Managing Risks and Opportunities*. Oxford: Blackwell.

Chan APC, Lam PTI, Chan DWM & Cheung E (2008). Risk-sharing mechanism for PPP projects—the case study of the Sydney Cross City Tunnel. *Surveying and Built Environment*, Volume 19 (1).
