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Risk Allocation

Risk Allocation in Public Private Partnerships

A number of key risks must be identified, allocated, and managed to ensure successful financing and implementation of a PPP project. These risks will need to be allocated with the party that is best placed to manage them in a cost effective way (this will not necessarily always be the private sector).

Below are categories of risk that must be carefully allocated and managed to ensure the bankability and long-term success of a PPP project:

Construction and Completion Risk

Cost of Construction **-** Clearly, the cost of completion will be fundamental to the financial viability of the project as the financial assumptions and ratios are all dependent on the assumed cost of construction of the project. The lenders will need some mechanism to manage the risk if the project company's cost of completion increases as compared with that anticipated at financial close. The project company will also seek to lock in certain costs such as **costs of commodities**, as early as possible in the project, so as to limit price escalation.

Delay **-** Completion represents the end of the construction phase of the project. The construction contractor will be liable for liquidated damages for late completion, therefore the definition of "completion" will have a large impact on the construction contractor's risk.

Performance **-** The lenders will want to ensure that completion requires the works to be in a condition sufficient to merit release of the construction contractor from delay liquidated damages liability. The works will therefore be subject to certain technical tests and demonstration of performance capacity before completion is achieved.

The project company will want to ensure that the criteria placed on completion can be measured objectively as set out in the construction contract, and that the lenders do not have the right to refuse completion owing to their own subjective evaluation of the works. This may involve technical testing effectuated by independent experts, or by standard measures or tests with clearly ascertainable results, not unreasonably subject to dispute.

Operating Risks

As noted under Certainty of Revenue Stream, the financial model and assumptions to viability of the project are dependent on the projected costs of operations. If there is something in the cost of the operation that increases, lenders will want to be protected to the extent that it will impact the revenue stream. For instance, one of the key costs of operation in a power generation project will be the cost of the fuel and in the case of a water treatment plant, the cost of power. The cost can be locked in, to some extent, through hedging and futures contract and through input agreements but there are likely to be some costs that are not hedged and the lenders will want to be sure that these are limited (for instance, the increased cost is reflected in the tariff calculation for the power or treated water). Another key cost in operations will be the cost of workers and an assumption for wage inflation is usually built into the agreement by reference to an index such as the retail

price index. It is important to ensure that the index covers increases in the sorts of costs incurred by the project.

The other key risk in operations is performance. The lenders and other investors are likely to have chosen an experienced operator to operate the project but there will be risks associated with operations such as key pieces of plant breaking down when they are out of construction warranty and also in the project company failing to meet the performance requirements and facing penalties and even the risk of termination for default. The lenders will seek to mitigate these risks through warranties and step-in rights.

Demand Risk

For more information go to Certainty of Revenue Stream.

Force Majeure and Change in Law

It is important to note that the financing agreements will not include *force majeure* or change in law provisions. The obligation to repay the loans will continue in the event of *force majeure* or change in law. The lenders will want to review the *force majeure* and change in law provisions in the project documents and ensure that they are back?to?back (as far as possible) with the concession agreement.[1]

Political and Regulatory Risk and Expropriation or Nationalization Risk

As the market for project finance transactions has expanded into developing countries, concerns about political risk have grown. Key risks that arise are the decision by a government to cancel a project or to change the terms of the contract or not to fulfil its obligations, political or regulatory risk in failing to implement the tariff increases agreed upon in the contract, the risk of expropriation or nationalization of project assets by a government. Some of this will be managed in the project agreements with the government taking some of the risk in terms of compensation to be paid in the case of unilateral termination or expropriation, but not all political risks are likely to be borne by the government.

Commercial lenders may be prepared to take a degree of political risk, but in some countries the perceived political risk inhibits or even prevents the financing of projects which otherwise might be viable. Since the commercial insurance market can only absorb a limited degree of true political risk, many project sponsors have turned to multilateral agencies or export credit agencies to shoulder some or all of this burden, as described in Risk Mitigation Products.

Issues which commonly arise in relation to such cover include:

- the scope of "political risk", including regulatory risk and administrative risk;
- whether or not political risk includes events in more than one country or different states of the host country;
- the relationship between political risk and other "normal" project risks (for example completion risk);
- the extent to which a shareholder (particularly a local shareholder) can influence events which comprise political risk; and
- the consequences of a political risk event occurring and how it affects, for example, shareholder obligations to achieve completion, liability of shareholders under indemnities provided to export credit agencies or the basic liability of the borrower.

Environmental Risk

Environmental and social laws and regulations will impose liabilities and constraints on a project. The cost of compliance can be significant, and will need to be allocated between the project company and the grantor.

Equally, in order to attract international lenders, in particular IFIs, the project must meet minimum environmental and social requirements that may exceed those set out in applicable laws and regulations. For more on requirements of IFIs, go to **Environment**. This process is made easier where local law supports similar levels of compliance.

The Equator Principles[2] constitute a voluntary code of conduct originally developed by the IFC and a core group of commercial banks, but now recognized by most of the international commercial banks active in project finance.

These banks have agreed not to lend to projects that do not comply with the Equator Principles. They follow generally the IFC system of categorizing projects, identifying those that are more sensitive to environmental or social impact, and requiring specialist assessment where appropriate. During project implementation, the borrower must prepare and comply with an environmental management plan.

Environmental due diligence in respect of such projects and in respect of the legal regime within which they are being constructed, and an appreciation of the environmental requirements of public agencies which will be involved with the project, are crucial if the project company and lenders are to make a proper assessment of the risks involved.

Social Risk

Infrastructure projects generally have an important impact on local communities and quality of life, in particularly delivery of essential services like water and electricity or land intensive projects like toll roads. Project impact of society, consumers and civil society generally, can result in resistance from local interest groups that can delay project implementation, increase the cost of implementation and undermine project viability.[3] This social risk should be high on a lenders due diligence agenda, though it often is not. The lenders and project company often look to the grantor to manage this risk. The grantor in turn may underestimate its importance, since the social risk paradigm for public utilities is very different, the grantor may not have experience of its implications for private investors.

Tenor and Refinancing Risk

See Considerations for Government

Currency Exchange Risk

Project finance debt is often sourced from foreign lenders, in foreign currencies, yet project revenues are generally denominated in local currency. Where the exchange rate between the currency of revenue and the currency of debt diverge, the cost of debt can increase, often dramatically. Though under the theory of purchasing power parity, inflation pressures on the devalued currency will eventually bring the foreign exchange rate back to parity, project finance lenders are generally not prepared to wait quite so long (with average periods of about 10 years).

Where revenues are to be earned in some currency other than that in which the debt is denominated, the lenders will want to see the revenue stream is adjusted to compensate for any relevant change in exchange rate or devaluation. If this is not available, the lenders will want to see appropriately robust hedging arrangements or some other mechanism to manage currency exchange risk.[4]

Interest Rate Risk

Interest may be charged at a fixed rate, at variable rates (usually based on the banks lending rate or an inter-bank borrowing rate plus a margin) or a floating rate (calculated by reference to cost of short-term deposits). The spread or margin is expressed in "basis points". One basis point is one-hundredth of 1%. Inter-bank

borrowing rates include LIBOR (London inter-bank borrowing rate), EURIBOR (in the EU) and NIBOR (in New York).

Project finance debt tends to be fixed rate. This helps provide a foreseeable, or at least somewhat stable, repayment profile over time to reduce fluctuations in the cost of infrastructure services. If lenders are unable to provide fixed rate debt and no project participant is willing to bear the risk, hedging or some other arrangements may need to be implemented to manage the risk that interest rates increase to a point that debt service becomes unaffordable to the project. The tension between local and foreign currency debt is often a question of balancing fixed rate debt with foreign exchange rate risk or local currency debt subject to interest rate risk.

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[1] *Force majeure* and change in law are the subject of Checklists.

[2] For further discussion of environmental risk and the Equator Principles, see Equator Principles and also Environment.

[3] Delmon, “Implementing Social Policy into Contracts for the Provision of Utility Services”, in Dani, Kessler and Sclar eds., Making Connections: Putting Social Policy at the Heart of Infrastructure Development (2007)

[4] This issue is discussed further in hedging instruments.

Related Content

- **Financing Mechanisms**
- **Government Support**
- **Risk Mitigation**
- **Private Sector Mobilization**
- **Financial Intermediaries**
- **Intercreditor Arrangements**
- **Project Finance – Key Concepts**

- **Key Issues in Developing Project Financed Transactions**
- **Risk Mitigation Mechanisms**
- **Government Guarantees**
- **Further Readings on Financing and Risk Mitigation**

Additional Resources

- Managing PPP risks with a new guide on guarantees
- PPP Risk Allocation Tool (2019)
- A common goal: More consistency and risk analysis for infrastructure PPPs
- Guidance on PPP Contractual Provisions
- Termination Provisions