

# BOYADJIAN & ASSOCIATES

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## PROJECT FINANCE & MANAGEMENT CONSULTANTS

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# The Risks of Financing Large Scale Projects

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One of the interesting features of large scale projects is the considerable number of parties or players with differing interests that are brought together with the common aim of being involved to a greater or lesser extent with the project. The challenge is to ensure that all these parties can work together efficiently and successfully and co-operate in achieving the project's overall targets. It is inevitably the case that, although all of the parties will share the same overall aim in ensuring that the project is successful, their individual interests will vary considerably and, in many cases, will conflict. The success or failure of these players can often depend upon the proper identification, analysis and allocation of risk. The objective of this document is to highlight some of the key risks that characterize project finance transactions.

### *Project Finance Stakeholders:*

No two projects have the same cast of "players" but the following is a reasonably comprehensive list of the different parties likely to be involved:

- The sponsors;
- The insurers;
- The suppliers;
- The purchasers;
- The lenders;
- The contractors;
- The operators;
- The government.

## *Key Characteristics of Project Financing Structures:*

Project Financing typically includes the following basic features: Project financing usually involves setting up of a special purpose vehicle (SPV)—bound by a contractual matrix to various project participants—which raises debt and services it from its own cash flows, without recourse to its sponsors. From a credit perspective, assessing a project can be challenging, given that the debt investor has access to just a single source of cash flow, much unlike in a corporate or structured finance transaction, where multiple and diversified sources of cash flow may be available. Thus, the strength of a project financing rests primarily on the project’s ability to generate and sustain this cash flow, which is exposed to a multitude of risks.

### **Completion Risks**

Completion risk refers to the inability of a project to commence commercial operations on time and within the stated cost. This risk, which also includes construction and design risk, generally results in time and/or cost overruns that will require a substantial increase in capital and/or interest expenses during construction. This risk is also dependent on the complexity of construction, as greater the complexity (for instance, in the case of a petrochemical facility), higher the risks arising on this count. In addition, for projects with strong vertical linkages, the non-availability of upstream and downstream infrastructure is an important source of completion risk. Typical examples of such projects would be liquefied natural gas, natural gas, and toll road projects. In certain types of projects, such as ports and roads, project completion is also a function of the permitting risks associated with obtaining the necessary Rights of Way, environmental clearances and Government approvals.

### **Funding and Financing Risks**

A project company’s financial structure and its ability to tie up the requisite finances are the focus of analysis here. The financing structure is usually reviewed for:

#### **Capital Structure**

The capital structure of a project is evaluated to assess whether the debt-equity ratio is in line with the underlying business risks and that of other projects of similar size and complexity. The protections provided to bondholders such as minimum coverage ratios that must be met before

shareholder distributions are made, and the availability of substantial debt reserves to meet unforeseen circumstances. The matching of project cash flows (under various sensitivity scenarios) with the debt service payouts and the potential for cash flow mismatches.

#### **Currency risk**

Currency risk occurs when the revenue or turnover and the expenses of a project are in different denominations. The most common method for managing this risk is to enter into a hedge agreement with the supplier and/or a third party financial institution, in which the project is assured a certain exchange rate.

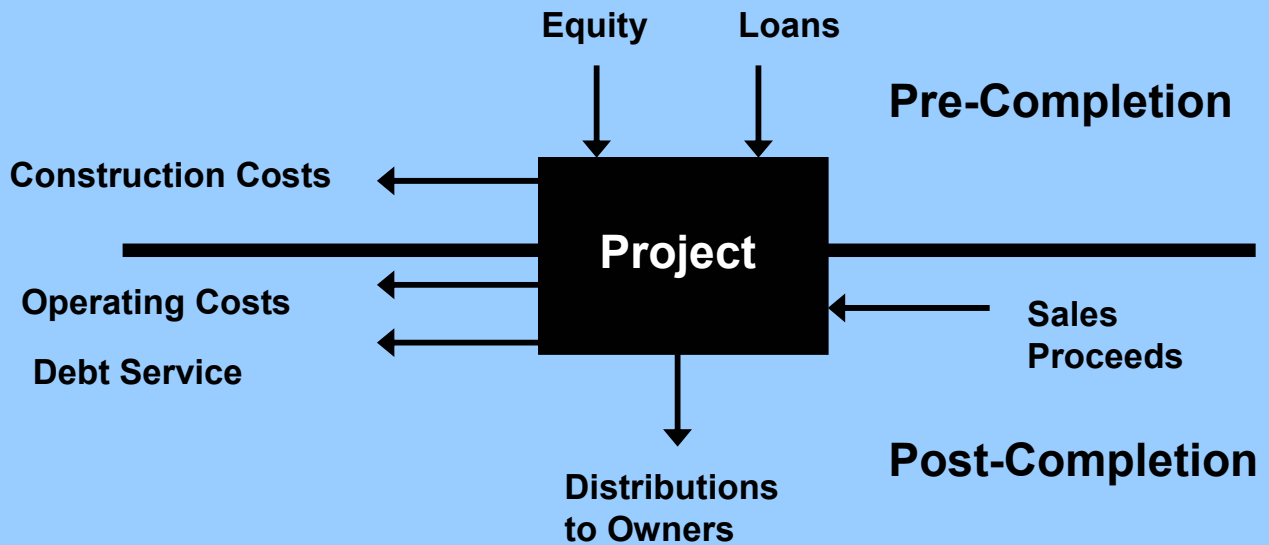
#### **Inflation risk**

This risk represents the possibility that the actual inflation rate will exceed the projected risk during the development of the feasibility study. Inflation risk may be mitigated by including an actual index, based on inflation, in the contract’s pricing formula, or by entering into long-term supply contracts with predetermined prices (these contracts increase the counter-party credit risk), to the extent that the risk cannot be controlled by the private sector, the public sector may decide to retain the risk, reducing the cost of the project.

#### **Operating and Technology Risks**

Technical and operational problems may prevent the project from meeting the required quantity and/or quality of services. Such risks usually arise in projects using complex technology like power plants, refinery or telecom projects. For projects in the roads, ports, and airport sectors, such risks are usually of a lower order. Operating risk applies to

## The Basic Elements of a Project Financing:



the various resources that are important to the operations of the project. This risk may be directly controlled by management, or be due to external conditions, inadequate maintenance that adversely affect the project's eventual operations.

### Market Risks

Market risks usually arise because of insufficient demand for products/services, changing industry structures, or pricing volatility for inputs and also outputs. Given the long-term nature of project financing, a considerable source of market risk is the possibility of dramatic changes in demand patterns for the product, either because of product obsolescence or sudden and large capacity creations, which could severely affect the economics of the project under consideration.

### Counter-party Risks

Counter-party risk is the most obvious and common risk, and is associated with the different project stakeholders unable to meet their contractual obligation. Therefore, an evaluation of the strength and reliability of such stakeholders assumes considerable importance in ascertaining the credit strength of the project. Counter-parties to projects usually include feedstock/raw material suppliers, principal off-takers, and EPC contractors. Even a sponsor/developer could become a source of

counter-party risk, as it needs to provide equity during the construction stage. Because projects have inherently complex structures, a counter-party's failure can put a project's viability at risk.

### Regulatory and Political Risks

Investors will generally review the history and current political conditions of the host country to assess the possibility of expropriation, nationalization, war, restrictions on the repatriation of funds, or exchange controls. In addition, they will examine the likelihood of other changes within the legal system, particularly with respect to labor, tax and environmental issues. For instance, such risks may take the form of:

- Lack of transparency and predictability in the functioning of the regulatory commissions which are typically involved in granting licenses, specifying the terms and conditions for use of infrastructure on a "common carrier" basis and fixing tariffs.
- Resistance to increases in user charges for common utilities such as water charges, toll tax rates, and energy charges, despite such tariff increases being envisioned in the project documents.

- Changes in environmental norms, which could impact power plants and refinery projects by requiring them to invest substantially in meeting such norms.
- Problems in acquisition of land, which are typical in the case of road projects.

### **Force Majeure Risks**

This risk reflects the occurrence of unexpected and uncontrollable natural and/or man-made conditions. A careful analysis of force majeure events is critical in project financing because such events, if not properly recompensed, can severely disrupt the careful allocation of risk on which project financing depends. Natural disasters, such as floods and earthquakes, civil disturbances, and strikes can potentially disrupt a project's operations and hence its cash flow.

### **Conclusion**

The demand for investments in industrial and infrastructure projects by private sector, suggests considerable potential for adequately structured project finance transactions. A project can conceptually be viewed as a nexus of contracts and agreements, which bring together various counter-parties for the sole purpose of creating and operating the asset under consideration. Where such projects are financed on a non-/limited-recourse basis, the usefulness of the project agreements reside primarily in their ability to contractually transfer/allocate risks to participants who are best equipped to handle them. The limited growth of this form of financing so far is attributable mainly to the high-risk perception of project financiers and the inability of project entities to offer suitable structures that mitigate these risks.

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