# 1.1.0 Project Funding Risk Management Guidelines

Your SELECTIVE FINANCIAL SERVICES Guide to successful Risk Management

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To Sum Up

#### **Preliminaries**

We at the SELECTIVE FINANCIAL SERVICES Financial Strategies Team feel that project funding is an innovative and timely financing technique that has been used on many high-profile corporate projects, including Euro Disneyland and the Eurotunnel. Employing a carefully engineered financing mix, it has long been used to fund large-scale natural resource projects, from pipelines and refineries to electric-generating facilities and hydro-electric projects. Increasingly, project financing is emerging as the preferred alternative to conventional methods of financing infrastructure and other large-scale projects worldwide.

Project funding discipline includes understanding the rationale for project financing, how to prepare the financial plan, assess the risks, design the financing mix, and raise the funds. In addition, one must understand the cogent analyses of why some project funding plans have succeeded while others have failed. A knowledge-base, such as it is available and built up through the SELECTIVE FINANCIAL SERVICES Financial Strategies Team is required regarding the design of contractual arrangements to support project funding; issues for the host government legislative provisions, public/private infrastructure partnerships, public/private funding structures; credit requirements of lenders, and how to determine the project's borrowing capacity; how to prepare cash flow projections and use them to measure expected rates of return; tax and accounting considerations; and analytical techniques to validate the project's feasibility

Project funding is finance for a particular project, such as a mine, railway, pipeline, toll road, power station, ship, hospital or prison, which is repaid from the cash-flow of that project. Project funding is different from traditional forms of finance because the financier principally looks to the assets and revenue of the project in order to secure and service the loan. In contrast to an ordinary borrowing situation, in a project funding the financier usually has little or no recourse to the non-project assets of the borrower or the sponsors of the project. In this situation, the credit risk associated with the borrower is not as important as in an ordinary loan transaction; what is most important is the identification, analysis, allocation and management of every risk associated with the project. SELECTIVE FINANCIAL SERVICES would like to help you manage such risks.

Through of this report SELECTIVE FINANCIAL SERVICES likes to explain, in a brief and general way, the manner in which risks are approached by financiers in a project funding transaction. Such risk minimization lies at the heart of project funding.

In a no recourse or limited recourse project funding, the risks for a financier are great. Since the loan can only be repaid when the project is operational, if a major part of the project fails, the financiers are likely to lose a substantial amount of money. The assets that remain are usually highly specialized and possibly in a remote location. If saleable, they may have little value outside the project. Therefore, it is not surprising that funders working with the SELECTIVE FINANCIAL SERVICES team and advisers, go to substantial efforts to ensure that the risks associated with the project are reduced or eliminated as far as possible. It is also not surprising that because of the risks involved, the cost of such finance is generally higher and it is more time consuming for such funding to be provided.

#### 1 The Risk minimization process

Financiers are concerned with minimizing the dangers of any events which could have a negative impact on the financial performance of the project, in particular, events which could result in: (1.0.1) the project not being completed on time, on budget, or at all; (1.0.2) the project not operating at its full capacity; (1.0.3) the project failing to generate sufficient revenue to service the debt; or (1.0.4) the project prematurely coming to an end.

The minimization of such risks involves a three step process. The first step requires the identification and analysis of all the risks that may bear upon the project. The second step is the allocation of those risks among the parties. The last step involves the creation of mechanisms to manage the risks.

If a risk to the financiers cannot be minimized, the financiers will need to build it into the interest rate margin for the loan.

#### 1.1 The Risk Identification And Analysis

The project sponsors will usually prepare a feasibility study, e.g. as to the construction and operation of a pipeline or a mine. The financiers will carefully review the study and may engage independent expert consultants to supplement it. The matters of particular focus will be whether the costs of the project have been properly assessed and whether the cash-flow streams from the project are properly calculated. Some risks are analyzed using financial models to determine the project's cash-flow and hence the ability of the projects management to meet repayment schedules. Different scenarios will be examined by adjusting economic variables such as inflation, interest rates, exchange rates and prices for the inputs and output of the project. Various classes of risk that may be identified in a project financing will be discussed below.

## 1.2 The Risk Allocation

Once the risks are identified and analyzed, they are allocated by the parties through negotiation of the contractual framework. Ideally a risk should be allocated to the party who is the most appropriate to bear it (i.e. who is in the best position to manage, control and insure against it) and who has the financial capacity to bear it. In research and analyses conducted by SELECTIVE FINANCIAL SERVICES's Financial Strategies Team it has been observed that funders attempt to allocate uncontrollable risks widely and to ensure that each party has an interest in fixing such risks. Generally, commercial risks are sought to be allocated to the private sector and political risks to the state sector.

## 1.3 The Risk Management

Risks must be also managed in order to minimize the possibility of the risk event occurring and to minimize its consequences if it does occur. Funders need to ensure that the greater the risks that they bear, the more informed they are and the greater their control over the project. Since they take security over the entire project and must be prepared to step in and take it over if the borrower defaults. This requires the funders to be involved in and monitor the project closely.

We at SELECTIVE FINANCIAL SERVICES suggest that such risk management is facilitated by imposing reporting obligations on the borrower and controls over project accounts. Such measures may lead to tension between the flexibility desired by borrower and risk management mechanisms required by the funder.

## 2 Types of risks

Of course, every project is different and it is not possible to compile an exhaustive list of risks or to rank them in order of priority. What is a major risk for one project may be quite minor for another. In a vacuum, one can just discuss the risks that are common to most projects and possible avenues for minimizing them. However, it is helpful to categorize the risks according to the phases of the project within which they may arise: (2.0.1) the design and construction phase; (2.0.2) the operation phase; or (2.0.3) either phase. It is useful to divide the project in this way when looking at risks because the nature and the allocation of risks usually change between the construction phase and the operation phase.

#### 2.1 The Construction Phase Risk - Completion Risk

Completion risk allocation is a vital part of the risk allocation of any project. This phase carries the greatest risk for the funder. Construction carries the danger that the project will not be completed on time, on budget or at all because of technical, labour, and other construction difficulties. Such delays or cost increases may delay loan repayments and cause interest and debt to accumulate. They may also jeopardize contracts for the sale of the project's supply and output contacts for raw materials.

Commonly employed mechanisms for minimizing completion risk before lending takes place include: (2.1.1) obtaining completion guarantees requiring the sponsors to pay all debts and liquidated damages if completion does not occur by the required date; (2.1.2) ensuring that sponsors have a significant financial interest in the success of the project so that they remain committed to it by insisting that sponsors inject equity into the project; (2.1.3) requiring the project to be developed under fixed-price, fixed-time turnkey contracts by reputable and financially sound contractors whose performance is secured by performance bonds or guaranteed by third parties; and (2.1.4) obtaining independent experts' reports on the design and construction of the project. The Financial Strategies Team of SELECTIVE FINANCIAL SERVICES suggests that completion risk is managed during the loan period by methods such as making pre-completion phase draw downs of further funds conditional on certificates being issued by independent experts to confirm that the construction is progressing as planned.

# 2.2 The Operation Phase Risk - Reserve Risk / Resource

This is the risk that for a rail project, power station, mining project, or toll road there are inadequate inputs that can be processed or serviced to produce an adequate return. For example, this is the risk that there are insufficient reserves for a toll road a mine, passengers for, fuel for a power station or vehicles, or a railway.



As a result of SELECTIVE FINANCIAL SERVICES's research into risk management, such resource risks are identified and usually minimized by: (2.2.1) experts' reports as to the existence of the inputs (e.g. detailed reservoir and engineering reports which classify and quantify the reserves for a mining project) or estimates of public users of the project based on surveys and other empirical evidence (e.g. the number of passengers who will use a railway); (2.2.2) requiring long term supply contracts for inputs to be entered into as protection against shortages or price fluctuations (e.g. fuel supply agreements for a power station); (2.2.3) obtaining guarantees that there will be a minimum level of inputs (e.g. from a government that a certain number of vehicles will use a toll road); and (2.2.4) "take or pay" off-take contacts which require the purchaser to make minimum payments even if the product cannot be delivered.

## 2.3 The Operating Risk

These are general risks that may affect the cash-flow of the project by increasing the operating costs or affecting the project's capacity to continue to generate the quality and quantity of the planned output over the life of the project. Operating risks include, for example, the level of experience and resources of the operator, shortages in the supply of skilled labor or inefficiencies in operations. The usual way for minimizing operating risks before lending takes place is to require the project to be operated by a reputable and financially sound operator whose performance is secured by performance bonds. The SELECTIVE FINANCIAL SERVICES Financial Strategies Team suggests operating risks are managed best during the loan period by requiring the provision of detailed reports on the operations of the project and by controlling cash-flows by requiring the proceeds of the sale of products to be paid into a tightly regulated proceeds are used to ensure that funds are used for approved operating costs only.

## 2.4 The Market / Off-Take Risk

Obviously, the loan can only be repaid if the product that is generated can be turned into cash. Market risk is the risk that a buyer cannot be found for the product at a price sufficient to provide adequate cash-flow to service the debt. The best mechanism for minimizing market risk before lending takes place is an acceptable forward sales contact entered into with a financially sound purchaser.

3 The Risks Common to Both Construction and Operational Phases

### 3.1 The Participant / Credit Risk

These are the risks associated with the sponsors or the borrowers themselves. The question is whether they have sufficient resources to manage the construction and operation of the project and to efficiently resolve any problems which may arise. Of course, credit risk is also important for the sponsors' completion guarantees. To minimize these risks, the SELECTIVE FINANCIAL SERVICES Financial Strategies Team urges that the participants in the project have suffizien human resources, experience in past projects of this nature and are financially strong (e.g. so that they can inject funds into an ailing project to save it).

#### 3.2 The Technical Risk

This is the risk of technical difficulties in the construction and operation of the project's plant and equipment, including latent defects. Financiers usually minimize this risk by preferring tried and tested technologies to new unproven technologies. Technical risk is also minimized before lending takes place by obtaining experts reports as to the proposed technology. SELECTIVE FINANCIAL SERVICES Financial Strategies Team suggest that technical risks are managed during the loan period by requiring a maintenance retention account to be maintained to receive a proportion of cash-flows to cover future maintenance expenditure.

### 3.3 The Currency Risk

Currency risks include the risks that: (3.3.1) a depreciation in loan currencies may increase the costs of construction where significant construction items are sourced offshore; or (3.3.2) a depreciation in the revenue currencies may cause a cash-flow problem in the operating phase. Mechanisms for minimizing resource include: (3.3.3) matching the currencies of the sales contracts with the currencies of supply contracts as far as possible; (3.3.4) denominating the loan in the most relevant foreign currency; and (3.3.5) requiring suitable foreign currency hedging contracts to be entered into.

### 3.4 The Regulatory / Approvals Risk

These are risks that government licenses and approvals required to construct or operate the project will not be issued, or that the project will be subject to excessive taxation, royalty payments, or rigid requirements as to local supply or distribution. SELECTIVE FINANCIAL SERVICES Financial Strategies Team suggests that such risks be reduced by obtaining legal opinions confirming compliance with applicable laws and ensuring that any necessary approvals are a condition precedent to the drawdown of funds.

### 3.5 The Political Risk

This is the danger of political or financial instability in the host country caused by events such as insurrections, suspension of foreign exchange, strikes, creeping expropriation and outright nationalization. It also includes the risk that a government may be able to avoid its contractual obligations through sovereign immunity doctrines. Common mechanisms suggested here by SELECTIVE FINANCIAL SERVICES's Financial Strategies Team for minimizing political risk include: (3.5.1) requiring host country agreements and assurances that project will not be interfered with; (3.5.2) obtaining legal opinions as to the applicable laws and the enforceability of contracts with government entities; (3.5.3) requiring political risk insurance to be obtained from bodies which provide such insurance (traditionally government agencies); (3.5.4) involving financiers from a number of different countries, national export credit agencies and multilateral lending institutions such as a development bank; and (3.5.5) establishing accounts in stable countries for the receipt of sale proceeds from purchasers.



#### 3.6 The Force Majeure Risk

This is the risk of events which render the construction or operation of the project impossible, either temporarily (e.g. minor floods) or permanently (e.g. complete destruction by fire). Management techniques for minimizing such risks include: (3.6.1) conducting due diligence as to the possibility of the relevant risks; (3.6.2) allocating such risks to other parties as far as possible (e.g. to the builder under the construction contract); and (3.6.3) requiring adequate insurances which note the financiers' interests to be put in place.

#### To sum up

Through this document SELECTIVE FINANCIAL SERVICES only gives a brief overview of the common risks and methods of risk minimization employed by financiers in project funding transactions. As stated previously, each project financing is different. Each project gives rise to its own unique risks and hence poses its own unique challenges. In every case, the parties and their consultants need to act creatively to meet those challenges and to effectively and efficiently minimize the risks embodied in the project in order to ensure that the project funding will be a success. When applying the principles described here, you will be successful in getting your project funded.

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