Risk Management

Elements of Mining Feasibility Study

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Definition

"A financing of a particular economic unit in which a lender is satisfied to look initially to the cash flows and earnings of the economic unit as the source of funds from which a loan will be repaid and to the assets of the economic unit as collateral for the loan."

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Two Aspects of Project Financing

- Risk
- Balance Sheet

Two Aspects of Project Financing

- Risk – The assessment of the various elements of risk in a project and the sharing of that risks between sponsors and lenders is the most critical.
- Full recourse vs. non-recourse financing

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Two Aspects of Project Financing

- Balance Sheet Treatment
- If the balance sheet of the economic unit undertaking the project and the financing need not be consolidated into the balance sheet of the sponsor then the financing may be described as "off-balance sheet".
- If consolidation is required then the financing is "on-balance sheet".

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Difference with Corporate Finance

- Corporate financing is a financing which is on credit or full recourse to the sponsor, whether it is directly borrowed or guaranteed by that sponsor.

Ultimate Goal

"The key to a successful project financing is structuring the financing of a project with as little recourse as possible to the sponsor, while at the same time providing sufficient credit support through guarantees or undertakings of the sponsor or third party, so that lenders will be satisfied with the credit risks."

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Advantages

- Longer maturity than conventional, unsecured financing
- Loan disbursement and repayment tailored to specific mine
- Ability of a joint venture/sponsor without a “track record” to raise financing
- Obtaining financing where further direct borrowing (corporate credit) limited by existing indentures
- Credit sources may be available to the project which would not be available to sponsor

Advantages

- Guarantees may be available to the project which would not be available to the sponsor
- A project financing may enjoy better credit terms and interest costs in situations in which the sponsor's credit is weak
- Higher leverage of debt to equity may be achieved
- Legal requirements applicable to certain investing institutions may be met by the project but not by the sponsor

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Disadvantages

- Perceived higher cost (risk premium) compared with straight corporate credit
- More documentation
- Need to negotiate risk-sharing aspects

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Causes for Project Failures

- Delay in completion, with consequential increase in the interest expense on construction financing and delay in the contemplated revenue flow
- Capital cost overrun
- Technical failure
- Financial failure of the contractor
- Government interference
- Uninsured casualty losses

Causes for Project Failures

- Increased price or shortages of raw materials
- Technical obsolescence of the plant
- Loss of competitive position in the market place
- Expropriation
- Poor management, and
- Overly optimistic appraisals of the value of the pledged security, such as petroleum or mineral reserves

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Project Risks

- Project loans involve a degree of equity risk in the sense that they rely on the project for their pay-out and not on a general credit of the borrower.
- Project finance is only concerned with self-liquidating projects such as mines, oil-wells, pipelines, refineries, toll ways, and industrial plant.

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Main Areas of Risk

- Completion risk
- Resource risk
- Operating risk
- Market risk
- Currency risk
- Political risk
- Environmental risk
- Native title risk

Completion risk

- That the project can be completed and brought into operation. Period of highest risk because of the possible cost overruns, delays in completing the infrastructure, labour difficulties, technical setbacks and the like.

Resource risk

- That the minerals or other resources will be sufficient and of good quality and will be economically recoverable by the proposed facilities

Operating risk

- Availability of raw materials for the project, the availability of a competent labour force, the vulnerability of the project to breakdown, the expertise of the operator and the exposure of the project to a hostile physical environment

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Market risk

- Whether the product is assured of a non-volatile market

Economic risk

- This is the risk that a project will be adversely affected by external economic circumstances such as inflation and rising interest rates.

Currency risk

- Where the currency of product sales differs from the loan currency. Project currencies should be matched to debt currencies as closely as possible. The risks are increased if significant local sales are contemplated which do not generate a hard currency

Political risk

- Includes the risk of civil disorder and revolutions, outright expropriations without compensation or creeping expropriations such as the imposition of taxes or royalties, the removal of construction licenses or licenses for the import of project equipment, the imposition of export prohibitions or price controls, exchange control regulations, and forced management.

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Environmental risk

- It is reasonable for lenders to expect the mining company to have in place an established environmental policy designed to ensure that appropriate systems are in place for identifying potential environmental risks, dealing with any environmental problems in a quick and efficient manner should they arise and ensuring compliance with environmental laws.

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Native Title risk

- It is risk that title to a project area will be invalidated or the operation of the project will be enjoined or a compensation payment will need to be made because indigenous peoples have native title rights in respect of the project area which are inconsistent with the existence or operation of the project.

Project Contracts

- Project finance documentation evidences an enormous variety of contractual forms
- These contracts strain contract law to its limits, perhaps because they are forced to stretch across the gap between loan and equity.

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Project Contracts

- Completion Guarantees
- Take-or-Pay Contracts
- Investment Agreements
- Purchase Agreements
- Forward Purchase Agreements
- Production Payment
- Hedging Transactions

Completion Guarantees

- Normally, lenders will expect substantial credit support from the sponsors until completion of the project is achieved and it is shown to be capable of operating satisfactorily.

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Under a completion guarantee the sponsors agree:

- To procure that the project will be completed and in operation by a specified long-stop date as defined by reference to construction of physical facilities, according to development plan or at a performance test.
- To provide overrun finance if required either by equity or subordinated loans.
- To infuse equity into the project company in an appropriate proportion to the lender's loans.
- To ensure that the project company satisfies certain financial tests on completion.

Take-or-Pay Contracts

- The essence of the take-or-pay contract is that the obligor undertakes to pay stipulated minimum sums for goods or services from the project whether or not he takes them.
- The minimum price is fixed as the amounts necessary to cover the loan payments and the operating costs of the project.

The take-or-pay contract may be a contract for:

- The *purchase of goods* produced by the project, such as minerals, hydrocarbons or manufactured goods
- The *purchase of services* such as processing of product (known as throughput contracts) or use of a pipeline or transportation system (known as tolling agreements)
- The *hire of equipment* or a ship (financial lease or demise charter)

Investments Agreements

- The project sponsors agree to provide a degree of financial support to the project company by agreeing:

  - to finance the project company by way of subordinated loans or equity capital in sufficient amounts to ensure the solvency of the project company or

  - to pay the project company sums equal to the amounts which are required to service and repay the loan.
- These commitments are generally given direct to the project company and are assigned by the project company to the lenders.

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Purchase Agreements

- A contract whereby the project sponsors agree with the lenders to purchase the amount of their loans in the event of a default.

Forward Purchase Agreements

- An agreement between the project company and the lenders (or more usually a financing vehicle owned by the lenders) under which the vehicle agrees to pay in advance for goods to be produced by the project company. The project company uses the advance purchase price for the construction of the project in the same way as it would use the proceeds of a loan. Interest is payable on the prepayment. When the project is completed and in operation, the project company delivers production to the vehicle under the forward purchase agreement and the vehicle sells the product on to a third party so as to generate the cash flow needed to repay the loan.

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Production Payment

- A transfer of a proportionate share of an interest in minerals or hydrocarbons in the ground coupled with a right to receive a portion of the proceeds of sale of the minerals. The duration of the grant continues until such time as the "lender" has received the sum paid for the grant of the right together with interest.
- But there is no claim for a shortfall.

Hedging Transactions

- Many resources companies enter into numerous hedging transactions to protect themselves from fluctuations in the gold price as well as currency and interest rates movements. They are important because they give a level of certainty as to future revenues flows and hence the ability to repay a loan.

Conclusion

- In borrowing money for mining and energy projects, it is of critical importance for the company to ensure that its lenders understand the key aspects of the company's business.
- It is with this understanding that lenders will be able to assess accurately the risks involved in the development projects and existing operations and the ability of the company to pay a loan.

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