

THE CONCEPT OF LOAN SECURITY

Through the course of this paper I have been emphasising the importance of loan security. So what is it and why is it so important ?

Project financiers are in the business of lending money, this should never be confused with selling money, project financiers are members of a service industry, they are not vendors. The thrust of this discussion must focus on the word, Lend.

There is no difference in the philosophy of a bank lending money for a fee and of an equipment hire company supplying a garden ladder for a fee. In both cases the client pays for the use of an item for a set period of time, the item remains the property of the owner. Thus the loaned funds for project development remain the property of the bank and the bank expects and requires that it get them back at the termination of the loan period. If the equipment hire company does not get its ladder back the hirer must pay for it and in the same way if the bank does not get its money back then it must rely on the security package at whose heart lie the reserves, to recover its funds.

It is thus easy to see why the process of the "due diligence" analysis of the security package is so important to the financier. It goes without saying that this procedure can be very expensive if not well managed from both the client's and bank's points of view. The due diligence exercise underlines the governing technical parameters of the project, is the foundation of the financial model and is thus the basis for the determination of the loan margins.

The loan margins for mining facilities vary from project to project and reflect the bank's perception of the degree of difficulty of putting the loan in place. A loan secured by a large corporate balance sheet obviously attracts a lower interest rate than one secured by a small mining project in New South Wales.

A bank which has a high level of internal technical understanding will be in a better position to offer interest rates which actually reflect the project risks. It may seem strange that considering the old saying "as safe as houses" that interest rates for mining projects are generally very much lower than for the average housing loan, considering the comparative risks involved in funds repayment.

Repayment of the loan is a function of the cash flow, corporate balance sheet if this is substantial or if all else fails, the security package. Thus the quality of the key underlying asset, the ore reserve, is of paramount importance for two reasons. Firstly it forms the basis of the ability of the company to make its loan repayments on the scheduled dates and secondly because if some dire twist of fate should cause the corporate entity to collapse, then the only way to recover the loaned funds is to either perform a work-out, or to on-sell the asset to realise its value.

In either case, if the quality of the ore reserve is in doubt then the scenario presents a serious problem for the bank. All of us have been witness to some extreme cases of loan defaults and corporate collapses in the late 1980s and it serves us well to remember the prudential lessons that this unfortunate period has taught or reinforced.

DETERMINATION OF THE LOAN AMOUNT

The loan amount for a given project's development is a function of a number of factors:

- a) The amount of money required to fund the pre-production and capital expenses
- b) The cost of the various loan alternatives
- c) The allowed limit which is determined on the basis of the banking and financial ratios calculated from the Feasibility Study.

It is point (c) that encompasses the banker's analysis of the project risk. The ratios are a function of all of the input factors including the selected discount rate which is an implied risk measurement in itself. The most commonly perceived risks are:

- (I) geological risk,
- (II) mining and extraction risk
- (III) metallurgical and ore treatment risk,
- (IV) operating cost risk and
- (V) commodity price risk

To a greater or lesser extent all of these elements contribute to the ore reserves of the project.

Risks which are not as directly assessed as part of the ore reserve estimate, but which are still very important from the banker's viewpoint are:

- (I) capital cost risk,
- (II) environmental risk,
- (III) native title claim risk,
- (IV) management risk
- (V) corporate risk and
- (VI) sovereign risk

The very important point to note is that there are mechanisms available to deal with problems in the second list of risk elements, but if the ore reserve is badly estimated and there is no easy way to correct errors then there may well be no possible way to put a funding package in place. It's really rather simple; no reserve, no loan !

Of all of the risks inherent in estimating the ore reserve it is the estimates of the Measured and Indicated resources which are the prime factors. Nothing can be done to correct the situation if the resource estimate is based on a poor geological interpretation to the extent where mineralisation simply does not exist in some areas where it was thought to be present. However, if the reserve has been put into question because of the inept efforts of unskilled practitioners then there may be a solution, albeit a relatively expensive one, in that work will have to be repeated. Thus Rothschild Australia Limited always recommends the use of well qualified consultants in the first instance.

We believe at RAL that it is the ore reserves which are the key to maintaining good security for the loan and therefore it is these that the bank's technical experts subject to the most rigorous analysis.

Although the title of this paper is Feasibility Studies and Ore Reserves - A Banker's Perspective, the notions that I will be espousing more reflect the viewpoints of merchant banks and project financiers that deal in the business of funding the development of mining projects, rather than those of commercial trading banks.

I shall attempt to give a clearer view of why bankers are so keenly interested in the quality of the ore reserve estimate and why companies which may be potential borrowers should ensure that the ore reserve estimate which is included as part of the bankable Feasibility Study is of the highest standard.

I shall also briefly outline some of the types of loans which may be available for project development, on what basis the bank determines the appropriate size and duration of those loans, but most importantly I shall focus on the determination and quantification of the risk elements of mining projects and how these relate to the quality of the underlying security for the loan. I intend to show that it is the ore reserves which are the key factor in any mining project, for if the reserve is unreliable or incorrect, then the entire project is in jeopardy and the quality of the bank's loan security is poor at best.

It is very important that resource companies which rely on the quality of the projects which they are mining for their complete loan security package should be absolutely aware that banks that do not understand the technical aspects of the projects in question cannot be relied upon in difficult times. It is very likely that financial institutions without a deep understanding of the salient technical issues will "pull the plug" on a project at the first sign of trouble rather than accepting the challenge and working with the company to reach an equitable solution.

The basic element for good team work over the life of the loan is open communication on technical matters between the company and the bank's technical team. In this way the surprise element will be eliminated and the financier will be prepared for directional changes in the development of the project.

TYPES OF LOANS

Mining projects can be funded by way of either cash or commodity loans. Producers are often happier and feel more secure with loan drawings and repayments denominated in the commodity being mined. The other main factor of concern is of course, the cost of the loan. Gold loans were very popular in the eighties when the rates of inflation were at historical highs as were cash interest rates, but in comparison gold lease rates were low. In the relatively low inflationary environment of today many producers are just as, or more comfortable with cash loans.

Depending upon the style of the project it may be possible to fund it's development by either conventional debt mechanisms or by quasi-equity instruments such as convertible notes. The latter style of funding appeals to some companies as it demonstrates a commitment on the part of the financier to share in the initial risks, but by so doing, be in a position to participate in the greater rewards that such an early entry should bring if the project is successful.

Depending upon the view taken by the bank's technical appraisal team it may also be possible to fund some part of a project at a pre-feasibility stage if the indications are that the project looks to have the potential to generate a strong ore reserve. These determinations largely depend upon the resource base, the methodologies used for it's estimation and the reputation and track record of the consultants used for the estimation procedure.

FEASIBILITY STUDIES & ORE RESERVES - A BANKER'S PERSPECTIVE

Quentin Amos¹.

ABSTRACT

From the perspective of a mineral resources banking house the quality of the ore reserve base is of paramount importance, indeed it is the prime lending security. The selection of an optimizing package which has a successful proven track record will assist in maximizing the reliability of the ore reserve estimate from the banker's point of view. It is likely that the selection of a well known and reliable package may result in the client company being in a position to borrow a greater amount of funds on the back of the bank's increased confidence levels.

The bank will always consider that the funds and hedging that it has advanced for development of a mineral resource project will be at risk until such time as those funds are repaid. The prime security for such loans in most cases will be the ore reserves. Thus it is necessary from the banker's viewpoint that during mining, the reserve will perform close to the tenor of the ore reserve estimate so that confidence in the project is maintained and the prime security risk is minimised.

A strong reserve base which has reconciled well with the reserve estimate will often place the client company in a position to use the prime project as security for the development of another operation at a stage somewhat earlier than might have been possible if it was a one project company. This is because the bank will have developed a level of comfort with the performance reliability of the reserve estimate and may thus be willing to extend the current facilities to cover an additional development on the back of the existing security.

Determining the acceptability of the ore reserve as part of the security package for project development is addressed during the banker's "due diligence" process. The clearer and more generally accepted the methodologies employed for definition of the reserve base, the faster the exercise can be concluded with the obvious attendant cost savings for the client company.

INTRODUCTION

1. QUENTIN AMOS

Qualifications: Economic Geology (Hons) degree, University of New England, Australia.

Membership: FAusIMM

Experience: Newmont Holdings Pty Ltd. Pancontinental Mining Ltd. (Both in Australia.)

Currently: Associate Director, Rothschild Australia Ltd.

THE ADVANTAGE OF A STRONG SECURITY PACKAGE

Apart from the obvious advantages of strong security in the form of a reserve which reconciles well with actual production from a corporate budgeting viewpoint, a very reliable reserve estimate can assist the company in the funding of additional projects.

If a bank has been working with its client for some time and has come to respect the management's ability to reliably predict tonnes, grade and operating costs then it may be possible to extend project A's finance package to cover at least the development of new project B. This will very probably result in a much cheaper funding package for the initial stages of B than would result if the bank had to negotiate and document a completely new legal agreement with its client.

In the event that project A is simply too small to provide adequate security to cover project B, then the reliable performance of project A will certainly give a bank much greater assurance of the management's capability. This may put the client in a favourable position where some form of early or mezzanine finance for project development might be possible.

Since I am stressing the position that a project financier would take, it should also be remembered that at least part of the funding package will be derived from equity. This may be simply a function of the client applying available internal funds to the project development or alternatively the company may have to go to the market place to raise the required monies by public issue or private placement. There is no doubt that a good project performance history between prediction and realisation will greatly assist the corporate adviser and/or underwriter in its quest for raising the desired funds on behalf of its client.

It can never be stated too often that the market loves a winner and hates a loser. If a company has a history of poor performance and each annual meeting is a litany of excuses for the failure of grade, tonnes and/or costs to meet their respective budget targets, then the chances of the company being able to maximize its market potential are very low. Markets are fickle and the window of opportunity for an effective capital raising may be very narrow. If a company is not well placed to "seize the day" then that opportunity may not arise again for some considerable time, if at all.

PROJECT FEASIBILITY STUDIES

The most important document that the company will present to support its request for funding will be the Feasibility Study. This document must be absolutely comprehensive in its coverage of all the project aspects and must address those areas of risk outlined above.

The client company will advance its financing opportunities markedly if it uses well known, reputable consultants to either complete or assist with the various aspects of the Feasibility Study. Such an approach will give the potential financier confidence that the company has taken a professional and unbiased attitude in determining the development feasibility of the property in question.

Upon receipt of the Feasibility Study, the bank will use the data supplied by the company in its cash flow analysis to build its own financial model. The purpose of this is to examine the timing of revenue input, cash requirements and the ability of the project to repay debt and the timing of such repayments. More specifically, the bank will develop a set of ratios for the project. The most critical of these are the Project Life Ratio, the Loan Life Ratio and the Debt Service Ratio.

The Project Life Ratio is defined as the net present value of the operating surplus for the life of the project at the end of the period, divided by the loan balance at the start of the period. The Loan Life Ratio is defined as the net present value of the operating surplus for the life of the loan at the end of the period, divided by the loan balance at the start of the period. The Debt Service Ratio is defined as the period loan repayment divided by the period operating surplus. The discount factor used for ratio calculation will reflect the perceived risks and poor work on the ore reserve will be reflected in the requirement for greater loan cover.

Thus the required size of the ratios varies depending on a number of factors including the commodity to be mined, the geographical location, the size of the project and the particular banks' understanding of resource projects and their appetite for the business.

BANKING DUE DILIGENCE STUDIES

Providing that the initial cash flow analysis meets the bank's lending criteria, then it will commence a technical "due diligence" study. The purpose of this study is to confirm all the elements of the Feasibility Study, but placing particular emphasis on areas which it considers critical for the success of the project and the project's ability to repay the loan amount. It will also investigate areas where it suspects that the Feasibility Study did not address a particular issue in sufficient detail.

The type and style of the due diligence study will primarily depend upon the size of the deal, it's geographical location and the commodity which the company is proposing to mine. Where a project is located in a well known mining district in Australia, less work is required to understand the intended operation than if the project is located in a difficult access region of a distant developing nation.

Also, if a project is of a scale that needs a syndicate or club of banks to share the risk, or if the client wants the opportunity to develop relationships with a number of banks, then due diligence studies tend to be time consuming because of the necessary discussions that must take place between the various syndicate members. This is because not all the syndicate banks may be as aware of the project parameters as the lead bank.

The due diligence study is typically managed by the bank's technically experienced staff, who may conduct either a larger or smaller part of the Study internally. These staff are responsible for a continuing process of information analysis and for liaison with the client, and for ensuring that the consultants liaise with the client. RAL strongly believes that a client company is far better served by a bank with a technical team which is not only well experienced in mining matters, but also well experienced in project finance. This is because the due diligence studies are focussed, effective and managed in a timely and cost efficient manner.

Active liaison is most important to minimise, and finally eliminate, any errors of fact which may have occurred during the Study. Liaison normally involves a number of face to face meetings with a good two way flow of information. Rothschild actively encourages it's clients to spend as much time with their ore reserve consultants as they can afford. We believe that this approach leads to not only a result with which the bank is comfortable, but should also result in the production of useful data for the company.

The Due Diligence Study will always involve a site visit by the bank's technical personnel and its senior consultants. The client company is best served by not only ensuring access to its senior staff responsible for each area (including accounting), but by also ensuring that line managers are available to answer questions. Good access will cut down the length of the site visit, speed up the due diligence process and contain the costs as much as possible.

Following completion of the Due Diligence Study, it will be submitted to the client company for a final check prior to its distribution to the relevant members of the bank(s) as part of the credit analysis process.

CONCLUSION

The purpose of this paper has been to outline the concepts that govern a bank's determination of the quality of the security which will be the foundation for a loan for project development. If a high degree of confidence that can be placed in the ore reserve estimate contained within the Feasibility Study then the bank will be far more likely to be in a position to assist the company with a funding package than if there are concerns surrounding the reserves. A strong reserve base may even put the company in a good position to use the security of one project to support the development of another.

The use of highly reputable and competent independent consultants for specialist tasks will serve the client company well when it approaches banks for financial assistance for project development. There are two advantages to be gained from this approach, confidence in the quality of the work completed and a reduction in overall real and opportunity costs through eliminating or reducing the need to repeat work.

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