

Financial Modelling Course

Natural Resources Projects

Overview

Construct a robust project finance model from scratch and use it to assess the feasibility of a project.

This course is aimed at financial analysts seeking a best practice approach to building a project finance model. Students will construct a model to perform a discounted cash flow analysis for the investment decision, and explore the relevant sensitivities, to introduce an overall approach to building models. As well as a number of fundamental techniques and concepts which will prove invaluable in future modelling assignments.

Content

Session 1

Model design and construction

- » The top down approach
- » The Principle of Error Reduction

Techniques for quick and efficient modelling

The inflation index

The cashflow drivers

- » Production and revenue
- » Variable and fixed costs
- » Working capital

Profits and Retained earnings

The cashflow and net cash

Session 2

Cash and overdraft (cash shortfall)

Capital expenditure and depreciation

Financing and capital structure

Interest and dividends

Tax losses and the tax calculation

Sensitivities and data tables

Graphs

Investment decision:

Base case vs expansion case

Session 3

Calculating interest

- » The calculation of interest
- » Interest on unpaid interest

Peak exposure

- » INDEX and MATCH functions

Subordinated debt

- » Deferring interest
- » Deferring repayments
- » Interest on unpaid interest

The cash cascade

- » Sources and uses of funds

Session 4

Ratios

- » Annual debt service cover ratio
- » Loan life cover ratio
- » Project life cover ratio

Debt service reserve account

- » Future debt service obligations
- » Movements to and from the DSRA

Senior debt

- » Calculating debt requirements
- » Repayment holiday
- » Repayment period mask

Cash sweep

- » The circular problem
- » Recognising future cash flows

Debt sculpting

- » Restructuring the debt

