



المركز العالمي للتدريب والتطوير
International Centre For Training & Development



PROJECT Finance Modeling



INTERNATIONAL ACCREDITATION ORGANIZATION



UNIVERSITY OF ROCKHAMPTON
MAKING THE DIFFERENCE



Course Introduction:

The principal aim of the course is enable participants to create, use and analyze a project finance model. These skills can be used to support credit approvals and reviews by lenders and to support organizations which run or sponsor projects. This will be done by reviewing best practice in model structures and logic, and using tools to highlight areas of risk, particularly in sensitivity analysis

Course Objectives:

By the end of the course, participants will be able to:

- Identify the main responsibilities handled by financial controllers
- Describe the different financial statements used in their organizations
- Analyze company performance highlighting impact of current operations on future financial results
- Evaluate and present company budgets and assist management in selecting proper plans
- Practice some of the key skills required in Excel to boost the efficiency of accounting and finance work
- Assess internal controls within the finance department and the organization in general

Who Should Attend?

- Project Finance, Structured Finance & Corporate Finance Professionals
- Analysts
- Investment Officers
- Risk Managers
- Financial Consultants

Course Outline:

Introduction and course objectives

- Brief overview of project finance
- Review of models and their objectives
- Introduction of a simple model and its components

Overall model structure

- Best financial modelling practice
- Overall structure of the model
- Separation of inputs, calculations and outputs
- Logic flow within the model
- Use of switches to allow option selection

- Use of flags to control timing factors
- Set-up to ease flexibility
- Accommodating multiple options at early stages of project
- Checks and totals, and error reporting

Inputs and assumptions

- Principles of model structure
- Building assumptions off the term sheets
- Using the assumptions sheets as a sign-off document
- Building-in ability to change and work changes through the model
- Restricting ranges of inputs and validation criteria
- Version control
- Tracking changes

Exercise: Creating an assumptions input sheet with built-in flexibility

Revenue and cost build ups

- Build-up of construction or other capital costs
- Correct matching of units
- Treatment of fixed and variable costs
- Use of Maintenance Reserve accounts
- Pricing assumptions
- Use of lookup functions to change expenditure timings
- Building in sensitivities

Taxes

- Tax treatment of costs
- Allowing for deductibility and non-deductibility
- Capital allowances
- Cash versus accounting treatment

Interest and fee calculations

- Circularity and consequences
- Calculations of interest and fees
- Timing of payments
- Cash flow payment vs. amortization in the
- P&L
- Capitalized fees and interest
- Exercise – from given term sheet of interest
- rates and fees, model interest and fee cash flow and P&L effects

Financing section

- Leverage, risk and the debt/equity equation
- Calculating the cost of different types of debt capital
- Cost of equity capital
- Use of Debt Service Reserve Accounts (DSRA)
- Use of the cash flow waterfall
- Modelling issues arising:
- Timing of debt and equity funding
- Fee costs, upfront and spread
- Interest costs, capitalized interest
- Interest rate ratchets
- Debt repayment profiles
- Rate switches or refinancing at various stages of deal
- DSRA interest margin
- Debt repayment profiles and built-in options
- Dividend and other equity returns
- Constraints on dividend payments
- Overall risk profile

Exercise: Creation of simple model to reflect debt costs, DSRA, repayment profiles, and returns to equity under constraints.

Modelling multiple drawdowns

- Cash flow driven
- Cash positive periods and interest earned
- Debt service reserve accounts
- Fees to be included in drawdown amounts
- Multiple facilities

Exercise: Given a pattern of cash flows, calculate facility drawdowns and related interest cost and earned

Multi-currency modelling

- Modelling foreign exchange rates
- Dealing with changes in exchange rates
- Comparing actual with forecast

Exercise: For a given pattern of cash flows in various currencies, model the amounts to be drawn in each currency

Separate exercise: Compare modelled rates and actual and separate effect of exchange rate changes from other variances

Inflation / escalation factors

- Use of indices
- Controlling start time of inflationary pattern
- Applying multiple rates to different cost & revenue items
- Varying inflation rates over life of the project
- Comparing the effect of actual inflation vs. modelled

Exercise: Model multiple, variable rates and analyze a separate set of actual rates

Creation of balance sheet

- Link between modelled cash flow and P&L
- Key balance sheet items and their calculation
- Non-cash items: depreciation, deferred tax
- Assumptions required to be made
- Use of existing figures or opening balance sheets
- Creation of check totals

Exercise: From a given P&L and cash flow statement, calculate balance sheet

Derivation of ratios

- Cash available for distribution and free cash flow
- Debt service coverage reserve ratios
- Interest cover ratios
- Equity returns
- IRR & NPV calculations
- Components of the weighted average cost of capital ("WACC")

Exercise: From a given cash flow and balance sheet, calculate the above ratios

Comparing actuals to previously modelled results

- Separate runs and variation of inputs
- Ability to compare results
- Reviewing future implications of variances

Exercise: From a modelled forecast and actual results, calculate variances and project future model changes resulting

Sensitivity analysis

- Break-even calculations
- Stress-testing of model

- Varying inputs to assess effect on results
- Use of goal seek
- Use of statistical techniques – probabilities and Monte Carlo simulations
- Version control to allow comparison of outputs
- Comparison of actual results against forecast as a sensitivity analysis

Exercise: From a given model of cash flows, P&L and balance sheet, calculate effect of varying inputs to a given degree, and stress-test model to break-even.

Risk reviews

- Use of risk matrices
- Relationship to model and sensitivity analysis
- Probability analysis
- Risk-adjusted returns – equity view
- Risk-adjusted returns – lender's view

Exercise: For a given model, calculate risk-adjusted returns from potential risks in the project

Exercise: Perform a risk assessment applicable to participants' own organizations, and model probability-weighted outcomes.

Documenting the model

- Setting up base case model
- Recording changes to model structure
- Recording changes to assumptions
- User guides
- Running scenarios: descriptions, comparisons to base, version control

Wrap up

- Overall review
- Key points to re-iterate
- Brief introduction to further exercises
- Final questions and issues to discuss

Course summary and close

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per the course location. This rate includes participant's manual, and-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session