

# Foundation in Project Finance Modelling

This 2-day course is designed for participants who would like to build, review or analyse project finance models. Participants will create a discounted cash flow model from scratch using best practice methodology and along the way, practice powerful Excel techniques and shortcuts.



The models you learn to build on this course are robust, flexible and easy to use.

## Financial models in the context of project finance

- Discuss the role of the financial model in a project finance transaction
- Understand what differentiates a “good” model from a “bad” one
- Apply industry accepted best practice principles
- Discuss the 3Fs – foundation, formatting, formula
- Learn tips and shortcuts to improve efficiency and reduce errors

## Model development

- Plan the model layout, structure, flow and periodicity/timing
- Design a user-friendly input sheet and create drop down lists, data validation and custom formatting
- Understand the phases of a typical project and create flexible timing and flags
- Write clear and concise formulas using binary flags, switches, and range names. Discuss the pros and cons of these techniques
- Learn the common Excel functions and understand when to use them

## Capital expenditure

- Discuss how to layout construction costs in a transparent and flexible way
- Add flexible contingency cost calculation

## Operations phase

- Consider the cash flow drivers and calculate production and revenue
- Calculate fixed and variable operating costs
- Understand real vs nominal values and use escalation index

## Funding the project

- Understand the structure of the cash flow waterfall
- Discuss typical funding options and drawdown approaches seen in typical transactions
- Discuss different debt repayment options and add a switch to allow users to evaluate the repayment methods
- Incorporate costs of debt including upfront fees and commitment fees

## Ratios and returns

- Calculate equity and project returns
- Perform returns (NPV and IRR) analysis and understand their drivers and pitfalls to different calculation methods
- Analyse key project finance ratios including DSCR and discuss the requirements from lenders

## Scenario and sensitivity analysis

- Perform sensitivity analysis and build a powerful scenario manager
- Create data tables to perform project analysis
- Introduction to optimising the funding mix using data tables

## Reviewing and troubleshooting (optional time permitting)

- Add checks to the model to reduce the risk of errors
- Where to start reviewing a model and what to look out for
- How to navigate around a model and interrogate formulas
- Model circularity - What is it? Why is it not accepted How to eliminate it?
- Discuss types of Excel errors and how to fix them
- Use a delta worksheet to analyse changes and spot potential errors

## Charting and presentation (optional time permitting)

- Pick up quick charting tips and pointers
- Create dynamic and flexible charts