



Mastering Project Finance and Projects Financial Modelling

22 – 26 August 2027
Johannesburg

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Overview

Large capital initiatives require rigorous quantitative structures to evaluate economic viability, allocate risk, and secure non-recourse debt. Mastering project finance and projects financial modelling enables analysts and managers to translate commercial agreements into dynamic, audit-ready spreadsheet models. Participants learn to construct integrated financial statements, model debt sculpting, apply control account methodologies, and resolve calculation circularities using Visual Basic for Applications. This course is delivered by Agile Leaders Training Center.

Who Should Attend

- Financial analysts and investment associates building cash flow forecasts for capital assets.
- Project finance managers structuring non-recourse and limited-recourse debt facilities.
- Treasury analysts and finance managers monitoring debt service coverage and reserve requirements.
- Project developers evaluating risk allocations, equity returns, and off-take agreements.
- Accountants and financial controllers transitioning to long-term asset lifecycle modeling.

Departments and Industries

This course serves finance and investment professionals responsible for modeling major capital projects across asset-intensive sectors.

- Project Finance and Treasury Teams in Renewable Energy and Utilities
- Infrastructure Advisory Units in Transportation and Logistics
- Commercial Development Divisions in Real Estate and Civil Construction
- Investment Analysis Groups in Oil, Gas, and Natural Resources
- Public-Private Partnership Units in Municipal and Industrial Development

Learning Objectives

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



- Differentiate project finance models from corporate finance frameworks using dedicated cash flow structures.
- Apply control account methodology to track construction funding, asset capitalization, and depreciation schedules.
- Incorporate dynamic timeline flags, delay scenarios, and indexation factors into project schedules.
- Structure construction drawdowns, financing costs, and capitalization of interest during construction.
- Program cash waterfall structures to manage sculpted debt repayments and reserve account funding.
- Implement Visual Basic for Applications macros to eliminate circular references in debt sizing.
- Execute sensitivity testing and scenario analysis to assess project robustness under operational stress.

Course Agenda

Day 1: Foundations of Project Finance and Model Structuring

- Core Features of Project Finance versus Corporate Balance Sheet Financing
- Contractual Matrix and Risk Allocation across Sponsors, Lenders, and Off-Takers
- Taxonomy of Project Finance Models across Bidding, Financial Close, and Monitoring
- Model Architecture Design using Modular Worksheets and Standardized Formulas
- Input Sheet Setup for Macroeconomic Drivers, Tariffs, and Inflation Assumptions
- Establishing Audit-Ready Model Navigation and Integrity Check Systems

Day 2: Modeling Best Practices, Control Accounts, and Timing

- Application of the FAST Modeling Standard for Transparency and Maintenance
- Implementation of Control Account Methodology for Balance Sheet Integrity
- Dynamic Timeline Mechanics for Construction Periods and Commercial Operations
- Modeling Timing Flexibility, Milestone Shifts, and Construction Delay Scenarios
- Indexation Factors and Escalation Adjustments for Revenues and Operating Costs
- Establishing Integrated Financial Statements: Income Statement, Balance Sheet, and Cash Flow

Day 3: Construction Phase Mechanics and Funding Structures

- Capital Expenditure Phasing and Asset Class Categorization
- Interest During Construction Calculations and Financing Fee Modeling
- Equity First versus Pro-Rata Drawdown Sequencing Mechanics
- Managing Circularity between Debt Sizing, Interest During Construction, and Fees
- Senior Debt Sizing based on Debt-to-Equity Caps and Gearing Constraints
- Standby Debt Facilities, Sponsor Support Agreements, and Public Capital Contributions



Day 4: Operational Cash Waterfalls and Debt Sculpting

- Revenue Generation Mechanics under Availability and Volume-Risk Frameworks
- Operating Expenditure Modeling, Maintenance Cycles, and Working Capital Adjustments
- Modeling Tiered Cash Waterfall Structures and Payment Priorities
- Structuring Non-Sculpted versus Sculpted Debt Repayments
- Calculating Debt Service Coverage Ratios and Loan Life Coverage Ratios
- Modeling Debt Service Reserve Accounts and Major Maintenance Reserve Accounts
- Dividend Distribution Gates and Investor Internal Rate of Return Calculations

Day 5: Model Optimization, VBA Automation, and Stress Testing

- Setting Up Solver Routines for Tariff Optimization and Return Targets
- Writing Visual Basic for Applications Macros for Circularity Resolution and Debt Sizing
- Running Multi-Variable Scenario Analyses for Cost Overruns and Tariff Reductions
- Conducting Breakeven Sensitivity Analysis on Debt Service Coverage Ratios
- Model Audit Procedures, Error-Checking Flags, and Diagnostics
- Executive Dashboard Design for Sponsors, Rating Agencies, and Credit Committees

Practical Exercises

Participants complete hands-on activities to resolve operational challenges and build execution plans.

- Suggested activity: Construct an integrated three-statement financial model incorporating debt drawdowns and asset capitalization.
- Suggested activity: Program a dynamic debt sculpting schedule targeting a minimum debt service coverage ratio.
- Suggested activity: Write a VBA macro to resolve circular references arising from funding fees and interest during construction.
- Suggested activity: Build an operational cash waterfall that incorporates reserve account funding and dividend lock-up tests.
- Suggested activity: Run sensitivity scenarios evaluating the impact of tariff reductions and completion delays on equity returns.

FAQs

How does this course differ from general financial modeling training?

This programme focuses specifically on non-recourse project structures, sculpted debt profiles, cash flow waterfalls, and balance sheet control accounts rather than corporate financial statement forecasting.

Is prior knowledge of Visual Basic for Applications required?

No prior programming experience is needed. The curriculum introduces model automation and macro writing step by step, specifically addressing debt circularity and iterative calculations.



What industry sectors are represented in the modeling examples?

Case examples draw from economic and social infrastructure, renewable energy installations, utility networks, and capital-intensive industrial developments.

Conclusion

Professionals depart with practical modeling techniques required to structure, audit, and optimize complex project financings. By mastering control accounts, debt sculpting, cash waterfalls, and automated circularity breakers, participants build transparent financial tools that satisfy lender criteria and investor performance benchmarks.