



Project Finance and Financial Modelling for Infrastructure and PPP Projects



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Introduction:

Infrastructure and PPP transactions often stall at the lender stage because the contract structure leaves risks unfunded, the debt is sized on optimistic cash flows, or the model cannot survive a model audit. This Core Concept programme builds Project Finance and Financial Modelling capability for the analysts who structure, lend to and review these deals. The first week covers SPV structures, contract risk allocation, funding sources and lenders' due diligence; the second week builds a full project finance model. Participants leave with a Project Finance Model and Bankability Report for an infrastructure case.

Course Objectives:

- Structure a limited-recourse SPV financing and map how concession, EPC, O&M and offtake contracts allocate risk to the parties best able to carry it
- Compare senior debt, mezzanine, export credit and sukuk funding options and select a financing mix that fits the project cash flow profile
- Assess bankability using lenders' due diligence findings, term sheet conditions and a structured risk checklist
- Build a project finance model covering construction funding, operations, the cash flow waterfall and reserve accounts
- Size and sculpt debt to target cover ratios and test DSCR, LLCR, lock-up and equity returns under downside cases
- Prepare a lender-ready base case and Bankability Report that supports financial close and later refinancing decisions

Target Audience:

- Analysts who build and maintain cash flow models for infrastructure and PPP transactions
 - Credit and structured finance staff who appraise and monitor limited-recourse loans
 - Sponsor and developer investment staff responsible for bid pricing and equity returns
 - Infrastructure fund staff who review asset-level models and distribution forecasts
 - Public sector PPP transaction staff who evaluate bidder financing and debt structures
 - Advisers and model reviewers who check project models before financial close
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Course Outline:

Day 1: Project Finance Foundations and SPV Structures

- Limited-Recourse Financing Compared with Corporate Balance Sheet Lending
- Special Purpose Vehicle Ownership, Ring-Fencing and Sponsor Support Structures
- Project Life Cycle Phases: Development, Construction, Operations and Handback
- Project Parties Map: Sponsors, Lenders, Offtaker, EPC Contractor and O&M Operator
- Infrastructure Sector Profiles: Power, Water, Transport and Social Infrastructure

Day 2: PPP and Concession Models from the Lender and Sponsor View

- BOT, BOO, DBFOM and Concession Structures with Their Cash Flow Profiles
- Availability Payment Versus Demand-Risk Revenue Models
- Concession Agreement Clauses That Drive Debt Capacity
- Termination Compensation Regimes and Their Effect on Lender Cover
- Independent Power and Water Producer Offtake Structures

Day 3: Risk Allocation and the Project Contract Structure

- Project Risk Matrix: Construction, Completion, Operating, Market and Political Risks
- EPC Contract Terms: Fixed Price, Date-Certain Completion, Liquidated Damages and Bonds
- O&M Agreement Terms: Performance Guarantees, Availability Targets and Cost Pass-Through
- Offtake and Supply Agreements: Take-or-Pay, Tariff Indexation and Fuel Supply Terms
- Direct Agreements, Lender Step-In Rights and the Security Package

Day 4: Sources of Finance and Lenders' Due Diligence

- Senior Term Debt: Tenor, Margin, Amortisation Profiles and Commitment Fees
- Mezzanine Debt, Shareholder Loans and Equity Bridge Loans
- Export Credit Agency Cover and Multilateral Lender Participation
- Sukuk Structures for Project Finance: Ijara and Istisna Arrangements
- Lenders' Technical, Legal, Insurance and Model Audit Due Diligence Reports

Day 5: Week-One Case: Bankability Assessment of an Infrastructure Transaction

- Term Sheet Review: Pricing, Conditions Precedent and Financial Covenants
 - Toll Road Concession Case: Bankability Checklist Application
 - Solar Power Purchase Agreement Case: Contract Gaps and Risk Mitigants
 - Credit Committee Paper Drafting: Key Risks, Ratios and Recommended Structure
 - Bankability Findings Presentation and Peer Challenge
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Day 6: Model Build: Timeline, Construction Period and Funding Cascade

- Project Model Architecture: Inputs, Timing Flags and Calculation Sheet Layout
- Construction Cost Schedule and Capital Expenditure Drawdown Profile
- Funding Cascade Logic: Equity First, Pro-Rata and Debt Drawdown Options
- Interest During Construction, Upfront Fees and Circularity Resolution
- Sources and Uses Table and Completion Date Test

Day 7: Operations Modelling, Cash Flow Waterfall and Reserve Accounts

- Operating Revenue Build from Tariff, Availability and Volume Drivers
- Operating Cost, Lifecycle Cost and Major Maintenance Forecasting
- Cash Flow Available for Debt Service CFADS Calculation
- Cash Flow Waterfall Priority: Senior Debt, Reserves, Mezzanine and Distributions
- Debt Service Reserve Account and Maintenance Reserve Account Mechanics

Day 8: Debt Sculpting, Cover Ratios and Equity Returns

- Debt Sculpting to a Target DSCR and Sizing by Gearing Constraint
- DSCR, LLCR and PLCR Calculation with Distribution Lock-Up Triggers
- SPV Tax, Depreciation and Dividend Trap Treatment
- Project IRR, Equity IRR and Sponsor Returns Analysis
- Covenant Test Flags and Event of Default Indicators in the Model

Day 9: Sensitivities, Financial Close and Refinancing

- Scenario Manager Design: Construction Delay, Cost Overrun and Tariff Cases
- Breakeven Analysis: Minimum DSCR and Maximum Downside Tolerance
- Lenders' Base Case Agreement and Model Audit Sign-Off
- Financial Close Checklist: Conditions Precedent and Final Model Lock
- Refinancing Analysis: Margin Step-Down, Tenor Extension and Gain Sharing

Day 10: Capstone: Full Model Build and the Project Finance Model and Bankability Report

- Water Desalination Concession Data Pack and Assumptions Book Review
 - Full Project Finance Model Build from Construction to Debt Maturity
 - Model Integrity Checks and Peer Review Using a Review Checklist
 - Financing Recommendation with Sensitivity Output Dashboard
 - Project Finance Model and Bankability Report Presentation to a Lender Panel
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Skills You Will Gain:

- Limited-Recourse Structuring
- Contract Risk Allocation
- Financing Mix Selection
- Bankability Assessment
- Construction Funding Modelling
- Cash Flow Waterfall Design
- Debt Sculpting and Sizing
- Model Review and Audit Readiness

Why Attend This Course:

- Return with a working Project Finance Model and Bankability Report built on an infrastructure concession case and reviewed by a lender panel
- Read an EPC, O&M or offtake contract and see at once which clauses weaken debt capacity
- Answer lender and sponsor questions on DSCR headroom, reserve funding and equity returns with numbers that tie out
- Compare deal experience with peers from lenders, sponsors, funds and public PPP units across power, water and transport sectors

Conclusion:

Project finance succeeds when contracts, funding and the model tell the same story to lenders. Week one moves from SPV structures and PPP concession models through contract risk allocation, funding sources and lenders' due diligence to a guided bankability case. Week two adds the full model: construction funding, operations, the cash flow waterfall, reserve accounts, debt sculpting, cover ratios, sensitivities, financial close and refinancing. The final day brings every element together in a Project Finance Model and Bankability Report ready for lender review.
