

F-201 Building and Analyzing Financial Models I



Course Description

Without systematic and comprehensive financial planning, review, and analysis, project developers and owners cannot assess the bankability and viability of a project. In this IP3 course titled, Building and Analyzing Financial Models I, we focus exclusively on the techniques of building, interpreting, and analyzing a project financial model using Microsoft Excel®.

The structure of this course is unlike any other that IP3 offers, as the focus each day is on learning certain financing and accounting techniques, and practicing those techniques in an on-going project case study. Each day, the IP3 financial modeling facilitator will build additional elements into the financial model. By the end of the course, participants will not only understand all key accounting and financial terms and how to use them, but will have applied them to a simulated PPP project model.

Who Will Benefit

- National, regional, and local government officials responsible for infrastructure financial modeling
- Contract officers and regulatory commissioners
- Financial analysts from PPP or privatization units
- Public servants, utility managers, executives, and financial experts
- Audit or project managers
- Staff of bilateral and multilateral international organizations

Learning Objectives

Through successful completion of this course, participants will be able to:

- Identify the key accounting and finance terms and concepts used in financial models
- Develop best practices and shortcuts for spreadsheet modeling
- Determine the key input variables to an infrastructure financing spreadsheet
- Integrate and link key financial statements including the profit and loss, balance sheet, and cash flow waterfall into a financial model
- Build a capital expenditure worksheet that details the timing and amounts of capex including interest capitalized during construction
- Develop a funding worksheet that helps determine the debt capacity of a project
- Develop and interpret key output worksheets which summarize the profitability measures (NPV and IRR) and various debt service cover ratios (DSCR)
- Perform key sensitivity and scenario analyses to determine how robust the project is under a range of downside assumptions
- Create a comprehensive financial model and present/defend the financing viability to experts and your peers

The Institute for Public-Private Partnerships
1320 North Courthouse Road, Suite 600
Arlington, VA 22201 USA

+1 (202) 466-8930 | Training@IP3.org
Learn more at IP3.org

Introduction & Overview to Building & Analyzing PPP Financial Models

- Review of PPPs
- PPP rationale & objectives
- PPP contract structuring options
- Understanding the unique investment requirement of infrastructure & public services
- Options for financing infrastructure investments
- Understanding the role of financial modeling and analysis in PPPs

Overview of Capital Projects

- Capital project types
- Key characteristics of infrastructure investments
- Infrastructure financing methods: from the lender's perspective
- Characteristics and ratios of infrastructure and PPP investments

Project Finance Fundamentals

- The “time value” of money
- Future valuation of a current investment
- Compounding
- Present valuation of future cash flows
- Discounting
- NPV & IRRs

Key Outputs of Financial Models: Financial Statements

- Accounting and income analysis vs. financial analysis and cash flows
- Income analysis for infrastructure investments: Non-cash expenses, depreciation and net income
- Calculating cash flow analysis: Debt service coverage ratios (DSCRs), net cash flows and internal rate of return on equity
- Understanding key investment ratios and financial indicators

Calculating IRRs & NPVs - PPP Credit Enhancement

- Utilizing credit enhancements to make economic and social infrastructure PPPs “bankable”
- PPP credit enhancement techniques and case examples
- Case study of India's PPP framework and program: Viability gap funding (VGF) and model PPP documents

Financial Modeling Building Blocks: Revenue and Operating Cost Line Items

- Typical financial model inputs and outputs

Modeling Tax and Depreciation

- Why does depreciation matter?

Introducing Debt Financing and Modeling Debt Amortization and Debt Service Coverages

- Financial modeling fundamentals and objectives
- Excel basic and advanced features
- Key concepts
- Typical project finance process
- Debt amortization
- Debt service coverage ratios
- Construction period cash flows

Making the Model More Flexible: Flags & Counters

- Logical statements and other excel functions
- Flags and counters
- Cash waterfall
- Multiple period analysis
- Taxes and depreciation

Building a Financial Model - Financial Analysis

- Project analysis steps
- Project finance risk allocation

Become a Certified Project Finance Specialist

IP3's PPP Specialist Certification program provides a core body of knowledge in project finance, creating a world-class standard in project finance development.

Certification requirements include 24 CEUs and successful completion of a PPP Specialist exam.



IP3 is an accredited provider of Continuing Education Units (CEUs) as sponsored by the International Association for Continuing Education and Training (IACET).

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