

# Financial Modelling Masterclass

Credit & Finance





9094



Virtual



16 hours



#### **Course Description:**

Best Practice model building and design solutions for common forecasting problems.

This 2-day Financial Modelling Masterclass will teach delegates a range of best-practice solutions to common design problems faced when building detailed time-series / forecasting models.

The program will firstly cover model design and structure to make updating forecast models simple and clear, starting with a set of historic data, delegates will design and construct a fully integrated 3-statement model using best-practice techniques and rules. It will progress include tools and tricks for flexibly referencing data and use these to build in alternative scenarios and sensitivity tools without having to rebuild the model. We will also use case-studies to explore a range of best-practice solutions to common design problems faced when building detailed models. This includes time-flexibility, working with massive data, and addressing and working with circularity in debt modelling, and adding diagnostic checks to a model.

The entire course is hands-on in Excel with case-studies and exercises throughout and a complete set of solutions to take away for reference, plus access to an e-learning course to revise from.

After the course, delegates will be faster, more effective and more confident in building reliable and flexible valuation, corporate planning, credit and structuring models.

### **Target Audience:**

This course is ideal for banking professionals who have some core, basic Excel skills but may be self-taught and need to know the tools and tricks that will allow them to build and work with financial models more efficiently and applying best-practice. Delegates may be

- Relationship Managers who regularly review and work with financial models
- support analysts who currently use, or want to be able to use, financial models to support financial decision-making

- Banking support employees operations, compliance, risk, technology who wish to enhance their understanding of 'good' financial modelling practice
- Early or mid-career banking professionals who have not had formal modelling training and wish to be more effective and efficient in their use of Excel

All delegates will currently use Excel as a data tool but perhaps have not had formal modelling training, or they wish to have a refresh and look at some more sophisticated financial modelling problems.

#### **Course Objectives:**

The course addresses each of these learning outcomes

- To understand and learn the principles of best practice financial modelling;
- To apply these principles to setting up a 3-statement financial forecast model
- To develop delegates' Excel code-writing skills;
- To develop tools for managing scenarios and sensitivity analysis (using Excel switches such as the Combo Box VBA form and Data Validation with date-retrieval formulae);
- To design and implement a time-flexible framework in a model (to allow analysis of monthly vs quarterly vs annual data without repeating inputs);
- To understand and apply principles of model integrity and auditing
- To build a flexible debt schedule for a model avoiding circularity
- To learn how to address and manage circularity should it arise (using macros and switches)
- To learn how to design and manage 'massive' data inputs using the same bestpractice principles

#### **Course Outline:**

#### **Day One**

#### Golden rules of model design

- What is best practice in design?
- Why design? Standard models: can they work?
- Design rules, a framework for establishing scope



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## CAPITAL CITY & Training Consulting

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**USD 800** 

#### **Excel set-up & Basics**

- Excel shortcuts a review
- Essential Add-ins
- Calculation options iteration issues
- Consistency of formats styles and templates to make it quick and easy

#### Key model elements and control methods

- Log sheet, control panel, version control and saving procedure
- Modular design how and why

#### **Code writing – best practice**

- Problem-solving strategies: how to ask the question
- Strategies for developing reliable simple code
- Practical code building techniques
- If (), And (), Or () and avoiding them
- Flags in problem solving
- Range Names what they are, how to use them and what they mean

#### Advanced scenario management and data retrieval

- Different methods to select the scenarios
- Numbers, data validation, simple Visual Basic (VB) tools
- The Lookup variations compared Vlookup, Hlookup vs. XLOOKUP, INEX and OFFSET
- Types of switches
- Building a fully flexible scenario manager
- Using data tables with a scenario manager to automate complex sensitivities.

#### **Auditing**

- What to look out for on opening, finding and killing circularity
- Finding and killing links
- The "coding clarity index" and how to use it
- Troubleshooting
- Auditing tools F2 vs. Ctrl-[ vs. Auditing Toolbar vs. F5-Special

#### Managing quality

Internal audit

- Managing quality in your own models
- Formal control procedures and third-party model audit lessons to be learned
- Building diagnostic tests

#### **Day Two**

#### **Depreciation and capex**

- Cascade vs. BASE calculation
- Consistency issues
- Transposing arrays
- The index solution

#### Modelling for date flexibility

- Add-ins for date functionality EOMONTH, EDATE etc
- Change the start date; change the length of forecast periods
- Flexibly consolidating quarterly and semi-annual models into annuals without repeating data

#### **Debt modelling and structuring**

- Finding the debt capacity and fitting it to the cash flows
- Planning to avoid circularity
- Is circularity really necessary?
- Debt amortisation schedules
- Revolver
- Switching between payback profiles

#### **Analysing data**

- Sensitivity analysis review impact of altering key inputs
- Goal seeks
- Data tables
- Automating data table updates for model modifications
- Diagnostics to indicate inconsistencies

#### Advanced sensitivities - Monte Carlo analysis in Excel

- Using data tables with distributed inputs
- Building a Monte Carlo engine in Excel
- Diagnostics to indicate inconsistencies



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**Additional session subject to time Macros** 

- Are they good / useful / necessary?
- Building macro to avoid circularity
- Recording
- Editing and understanding visual basic
- Creating loops
- Using counters

**Course Provider:** 

Capital City Training