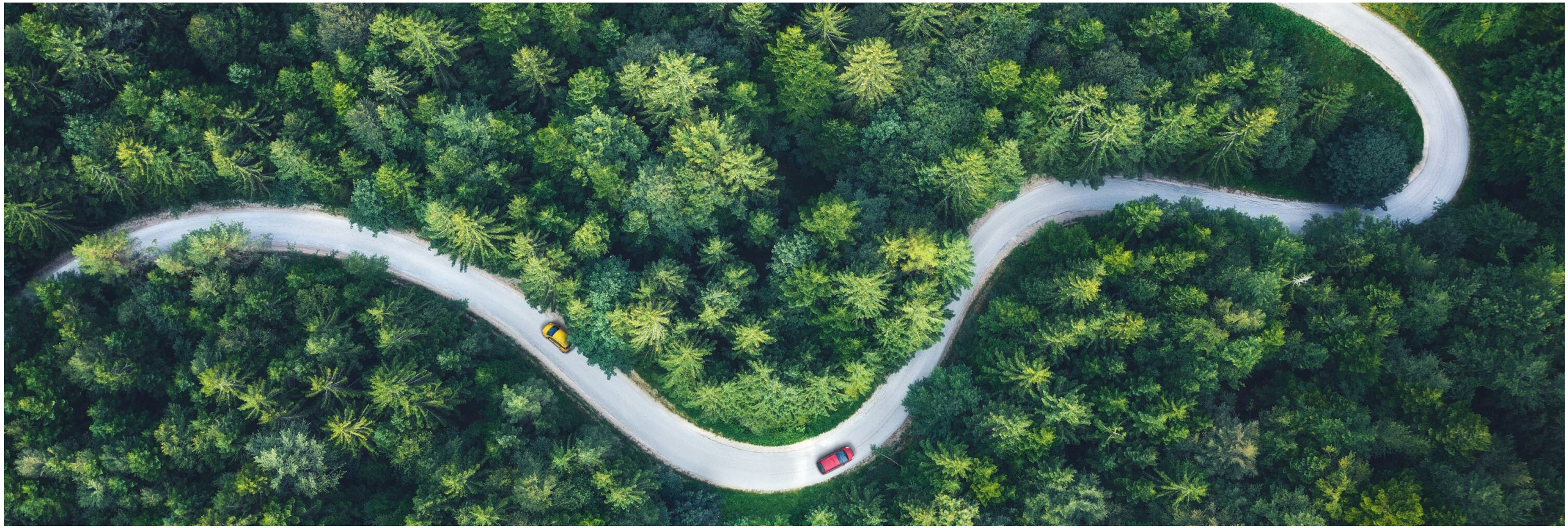

Forvis Mazars Presents

Financial Model Review: Avoiding Pitfalls & Pursuing Precision

November 2025

Agenda

1. Welcome & Introduction
2. Objective of a Model Review
3. Model Review Approach
4. Common Errors
5. What's Next?

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01

Welcome & Introduction

Welcome & Introduction

Jerome Devillers

Partner

20+ years experience in assurance and consulting. Founder and Lead for the Energy & Infrastructure Finance practice in the Americas.

Sakshi Ghai

Director

14+ years experience in the energy and infrastructure finance industries. Lead for the Model Due Diligence business in the Americas.

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02

Objective of a Model Review

Objective of a Model Review
Understanding the Purpose

Accuracy & Consistency

Assumption Validation

Logical Flow

Commercial Appropriateness

Documentation & Transparency

Performance Optimization

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03

Model Review Approach

Model Review Approach

How Model Risk Manifests

Examples

- Model developed generically or ad hoc without a planning and design phase
- Insufficient training of the model developer (and often user)
- Lack of use of a methodology
  - No segregation of inputs, calculations, and outputs
  - Inconsistent formulae across row
  - Sub-optimal model architecture
- No model documentation when model is headed over between users
- Complex/non-transparent formula (nested logic, unnecessary functions)
- Occurrence of un-trapped circular references

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Model Review Approach

Quality Control

Model Review

Model risk can be formally mitigated through a model review process (either internal or external)

Internal

- This should be done by yourself as a self review and someone independent

External

- Appointment of an independent professional service
- Reporting of errors is formalized and categorized according to type/importance
- Checking of revised versions until issues are satisfactorily addressed
- Issuance of final deliverables

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Model Review Approach

Planning the Model Review & Familiarization

- Identify and review the **key outputs**
- Identify any **external sources** or links
- Review **inbuilt checks** in the model
- Review the model **structure** (timeline and periodicity)
- Review whether there are **macros** and consider their apparent purpose
- Review the **scenario manager** to understand potentially significant variables
- Use Error Checking tool to review whether there are **circularities** present
- Review whether there is a clear distinction between **actuals and forecast data** (in case of operational model with actuals)
- Use **Sparklines/Charts** to identify any unexpected trends in financial statements and/or key outputs
- Ensure the model for review has been **fully calculated** (CTRL + ALT + F9), and that all appropriate macros have been run

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04

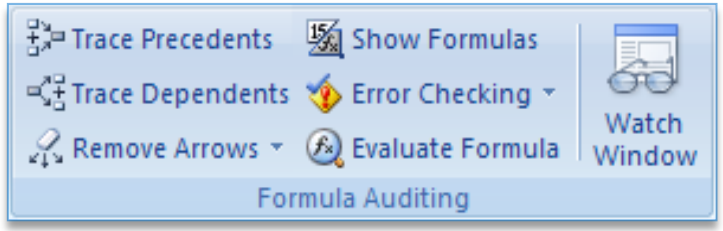
Common Errors

Common Errors
Error #1

Run a few simple tests to avoid these unnecessary errors

General Excel

- Formulas inconsistent across rows
- Hash errors:
  IF(AND(L$2>=$E8,L$3<=$F8),1,#REF!)
- Unused inputs
- Labels



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Common Errors
Error #2

Make sure that the escalation formula is consistent with the contract

Escalation

- Base date of escalation
- Date of uplift, *e.g.*, 1 Jan or 1 July
- Frequency of the escalation factor
- Should it be applied or not

Operating Expenses		
Australia All Groups CPI Data - Actual	[index]	[calc]
Quarterly Annualised Inflation Rate	[%]	[calc]
Annual Annualised Inflation Rate	[%]	[calc]
Operating Expenses Escalator - Quarterly		
Escalation as percentage of CPI	[%]	[calc]
Annualised Inflation	[%]	[calc]
Inflation Index - Base 30 Jun 18	[index]	[calc]

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Common Errors
Error #3

Graph the financial statements (using sparklines) and see what happens when you change the scenario

Financial Statement Irregularity

- Incorrect Signs:
  - Cash
  - Fixed Assets
  - Debt Balance
- Where is this account?

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Common Errors
Error #4

Make sure you press the macro button, and it solves …

Macros

- Macros not solving
- Macros taking too long to run
- Save the file
- Use name range

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Common Errors
Error #5

Check each of these labels and references

Returns

- Project cashflow and equity cashflow calculations
- Pre versus post tax cashflows
- Nominal versus real cashflows
- Discount rates
- XNPV and XIRR formulae

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Common Errors
Error #6

Check how the LLCR is defined in the financing documents

Loan Life Coverage Ratio

- We have seen a number of issues in the calculation of ratios, in particular the LLCR

LLCR = NPV of CFADS during Loan Life / Debt Outstanding

- The most common errors:
- CFADS not matching the financing documents
- Discounting of CFADS not done right
- It’s LLCR not PLCR

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Common Errors
Error #7

Debt Service Reserve Account

- Target balance not met
- Distributions paid when the DSRA is not fully funded
- DSRA maintained until the project timeline
- Funds not being released at maturity
- Cash inflow/outflows are the wrong way around
- Circularity macro not run (as a result of forward-looking target balance)

Debt Service Reserve Account		
DSRA Indicator	[indicator]	[calc]
DSRA Funding - Periods Ahead of the Following Period	[#]	[calc]
DSRA		
Senior Debt Service	[$000]	[calc]
Amount to be funded	[$000]	[calc]
Opening Balance	[$000]	[calc]
Cashflow To (From) DSRA Account	[$000]	[calc]
Closing Balance	[$000]	[calc]
Deposit Rate	[% p.a.]	[calc]
Interest on DSRA - Copy	[$000]	[calc]
Interest on DSRA - Paste	[$000]	[calc]

More On DSRA's (As Pictured Above) Can Be Found Here

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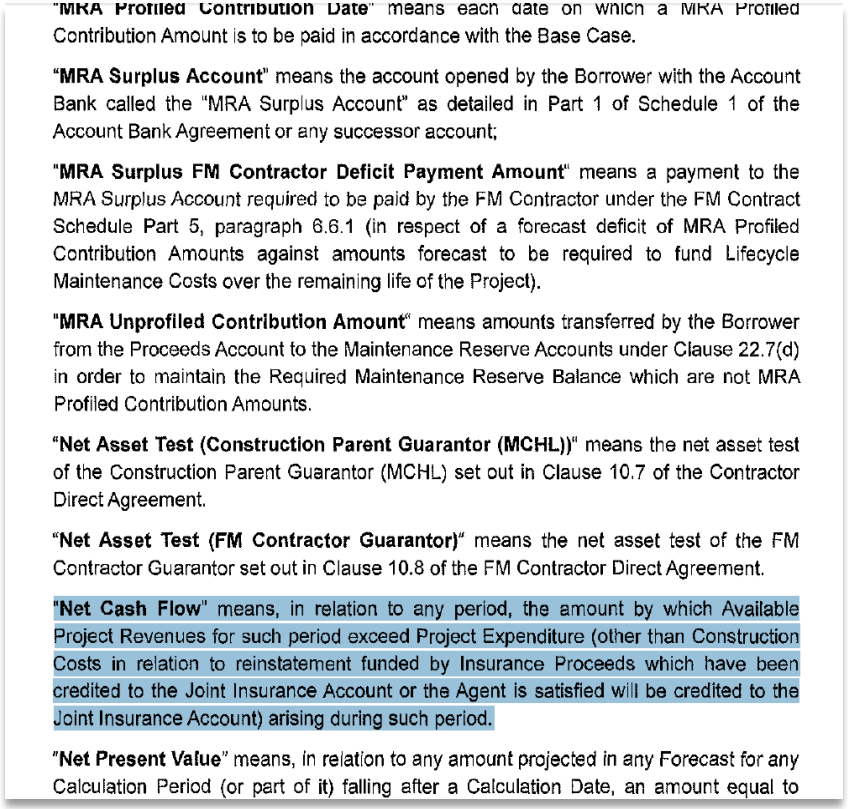
Common Errors
Error #8

Every time there is a change to the financing documents ensure the model is also updated

Financing Documents

- Debt covenants
  - Lock-up ratio
  - Gearing ratio
- Timing and rates
  - Margin
  - Upfront fee
- Dividend restrictions



"**MRA Profiled Contribution Date**" means each date on which a MRA Profiled Contribution Amount is to be paid in accordance with the Base Case.

"**MRA Surplus Account**" means the account opened by the Borrower with the Account Bank called the "MRA Surplus Account" as detailed in Part 1 of Schedule 1 of the Account Bank Agreement or any successor account;

"**MRA Surplus FM Contractor Deficit Payment Amount**" means a payment to the MRA Surplus Account required to be paid by the FM Contractor under the FM Contract Schedule Part 5, paragraph 6.6.1 (in respect of a forecast deficit of MRA Profiled Contribution Amounts against amounts forecast to be required to fund Lifecycle Maintenance Costs over the remaining life of the Project).

"**MRA Unprofiled Contribution Amount**" means amounts transferred by the Borrower from the Proceeds Account to the Maintenance Reserve Accounts under Clause 22.7(d) in order to maintain the Required Maintenance Reserve Balance which are not MRA Profiled Contribution Amounts.

"**Net Asset Test (Construction Parent Guarantor (MCHL))**" means the net asset test of the Construction Parent Guarantor (MCHL) set out in Clause 10.7 of the Contractor Direct Agreement.

"**Net Asset Test (FM Contractor Guarantor)**" means the net asset test of the FM Contractor Guarantor set out in Clause 10.8 of the FM Contractor Direct Agreement.

"**Net Cash Flow**" means, in relation to any period, the amount by which Available Project Revenues for such period exceed Project Expenditure (other than Construction Costs in relation to reinstatement funded by Insurance Proceeds which have been credited to the Joint Insurance Account or the Agent is satisfied will be credited to the Joint Insurance Account) arising during such period.

"**Net Present Value**" means, in relation to any amount projected in any Forecast for any Calculation Period (or part of it) falling after a Calculation Date, an amount equal to

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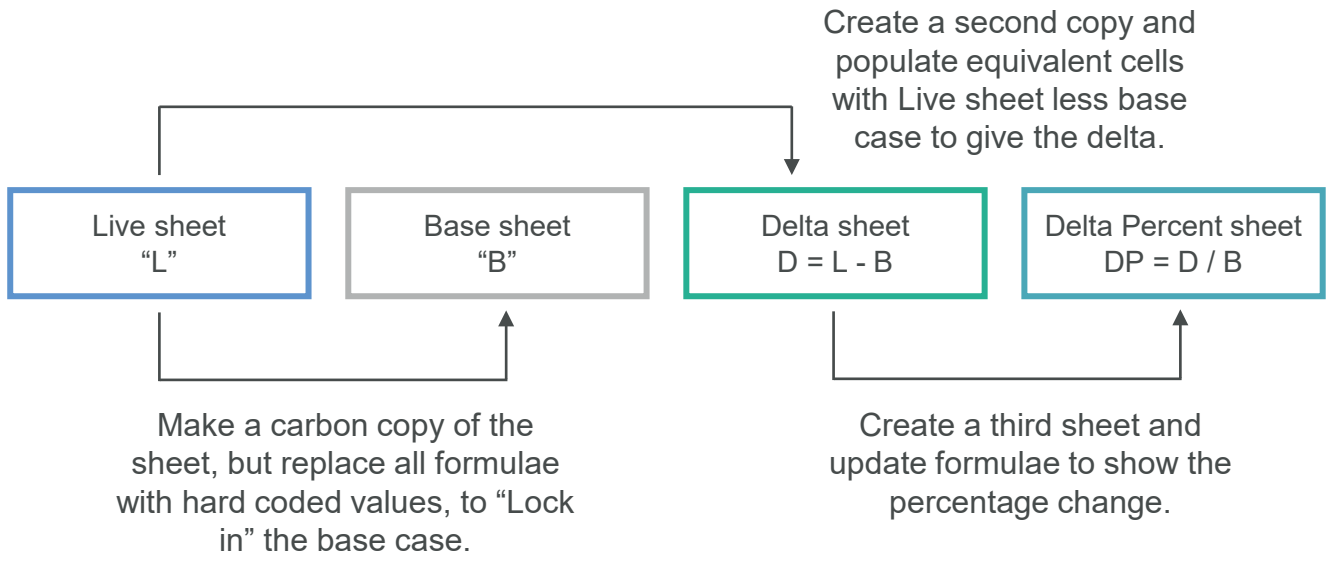
Common Errors
Error #9

Make sure you understand the deltas

Sensitivities & Scenarios

- Inputs not linked
- Facilities are not active in delay scenarios
- Lock-ups/cash sweeps/LDs, etc.



Advanced Technique: Delta Sheets Webinar | Forvis Mazars Financial Modeling

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Common Errors
Error #10

Double-check the first period and last period of calculations when there is a stub period

Stub Period Adjustments

- Mid-period start/end dates
- Common issues relate to:
  - Revenues and costs
  - Interest
  - Commitment fees

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Common Errors

General Excel Errors

Escalation

Financial Statement Irregularities

Loan Life Coverage Ratios

Scenarios

Financing Docs

Returns

Debt Service Reserve Account

Macros

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05

What’s Next

What's Next

The Review Process

Key Techniques

- Review by inspection
  - Supported by Inquire (or other similar packages)
  - Formula auditing toolbar
- Analytical review
  - Sparklines
  - Scenarios analysis/delta sheets
  - Dashboard
- Re-performance (or shadow modelling)

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What's Next

Forvis Mazars' Financial Modeling Training Course Calendar

Expand your modelling skills and learn the core Forvis Mazars methodology for how to build clean, robust, and flexible financial models.

Visit our website for more information
Financial Modeling Training for Energy & Infrastructure Professionals

November 19th & 20th	Advanced Project Finance Modeling
December 9th-11th	Financial Modeling for Renewable Energy Projects
January 27th & 28th January 29th & 30th	Best Practice Project Finance Modeling Advanced Project Finance Modeling
February 11th & 12th February 24th-26th	Financial Modeling for Digital Infrastructure Projects Financial Modeling for Renewable Energy Projects
March 17th & 18th March 19th & 20th	Best Practice Project Finance Modeling Advanced Project Finance Modeling
April 7th–9th April 22nd & 23rd	Financial Modeling for Power Generation Projects Financial Modeling for Acquisitions Transactions
May – exact dates TBC	Best Practice Project Finance Modeling Advanced Project Finance Modeling
June – exact dates TBC	Financial Modeling for Mining Projects Financial Modeling for Renewable Energy Projects

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