



Webinar

**Building
Error Checks**
IN FINANCIAL MODELS
with Danielle Stein Fairhurst

FINANCIAL MODELLING IN EXCEL ONLINE TRAINING BUNDLE



INTRO TO
FINANCIAL
MODELLING

ADVANCED
FINANCIAL
MODELLING

FINANCIAL
MODELLING
IN EXCEL

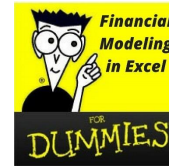
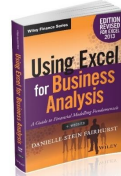
GET THE BUNDLE

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DANIELLE STEIN FAIRHURST



- “ Founded the “Financial Modelling in Excel” LinkedIn forum
- “ Modellers’ Meetups
- “ “Using Excel for Business Analysis: a Fundamental Approach to Financial Modelling”



What we'll cover today:

1. Which **errors** need checking?
2. Types of **errors** to avoid
3. Options for **error** check calculations

EXCEL ERROR VALUES

#####	The railroad tracks; not really an error - just make the column wider
#DIV/O!	You're trying to divide by zero
#N/A	No value available
#NAME?	There's a name in the formula Excel doesn't recognise
#REF!	Your formula refers to a cell that no longer exists
#VALUE!	The formula uses a wrong type of operand or argument
Circular Reference	This means you are trying to link a formula to itself somehow. Circular references often cause models to stop calculating

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LEARN TO LOVE YOUR EXCEL ERRORS



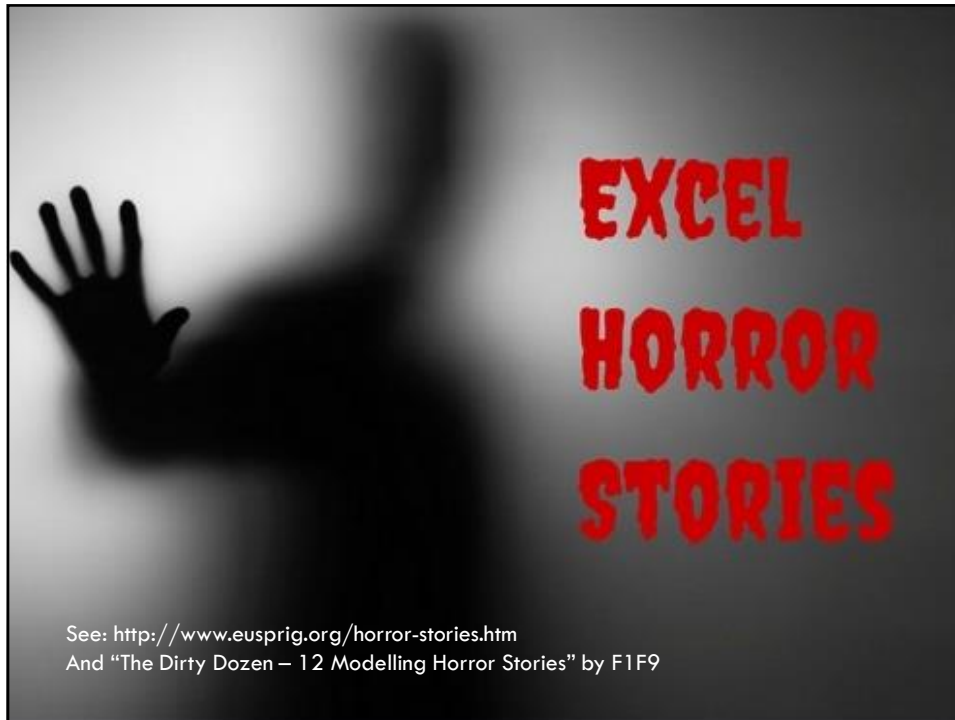
<http://www.plumsolutions.com.au/articles/learn-love-your-excel-errors>



TYPES OF MODEL ERROR

1. **Formula errors** are the easiest to make, but the easiest to fix.
Also the most career-damaging!
2. **Incorrect assumptions** or inputs
3. **Logic error** can be very difficult to identify

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TEN STRATEGIES FOR REDUCING ERROR

1. Use the enter key
2. Check your work
3. Check it again (sense-check)
4. Have someone else check it!
5. Validate assumptions
6. Document methodology
7. Stress-Testing
8. Sensitivities & Scenario analysis
9. Note Excel error values
10. Build Error Checks

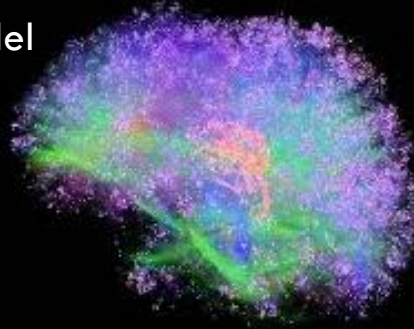
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See page 75 of "Using Excel for Business Analysis"

BEWARE OF SENSE CHECKING: COGNITIVE BIAS

“ **Confirmation bias**; we tend to interpret an outcome in a way that confirms what we already think

“ **Expectation bias**;
Modellers testing a model
are inclined to believe
outputs that agrees
with their expectations
for the model output



BEWARE THE FALSE ERROR!

Excel truncates at 14 decimal places, so certain checks
e.g. $A=B$ does not always work



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NOTE

Error checks are not a substitute for good modelling practices!

They are most helpful for users, not modellers.

OPTIONS FOR ERROR CHECK CALCS

" =A-B

" =A=B

" =IF(A<>B,"error",0)

" =IF(ABS(A-B)>1,"error",0)

" Consider a summary page (don't bother to count errors!)

See page 86 of "Using Excel for Business Analysis"

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USING ERROR CHECKS

Pay attention to errors, don't ignore them

Don't move on until they are fixed

Use conditional formatting

Build as you go

Errors vs. Breaches or Warnings

CIRCULAR REFERENCES

oranges are called oranges
because they are orange and the
colour orange is called orange
because oranges are orange.

See page 90 of "Using Excel for Business Analysis"



TIPS FOR FINDING ERRORS

- “ Enter extreme values
- “ Use a colleague
- “ Experience
- “ Compare to previous version!

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