



Institute
and Faculty
of Actuaries



Improving business engagement using top-down validation

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Improving business engagement

Why top-down validation?

A fresh perspective

Regulatory focus

NEDs and Board feedback

Today's agenda

Examples and case studies

Bottom-up vs. top-down

Ideas for Monday

Where next on the validation journey?



Detailed test plan

Pass/fail criteria

Test schedules

Where next on the validation journey?



1. What moves the dials?

2. Understanding change

3. NED top-down questions



1. What moves the dials? Sensitivity testing

Typical bottom-up approach

Sensitivity test		Impact on SCR	Commentary
1	Increase in attritional claim volatility – Class A	+15	Movement as expected
2	Decrease in attritional claim volatility – Class B	-20	Movement as expected
3	Increase in attritional claim volatility – Class C	+30	Movement not as expected – escalated
4	Decrease in attritional claim volatility – Class D	-12	Movement as expected
5	Increase in attritional claim volatility – Class E	+10	Movement as expected
6	Increase in large loss frequency – Class A	+15	Movement as expected
7	Decrease in large loss frequency – Class B	-20	Movement as expected
8	Increase in large loss frequency – Class C	+30	Movement not as expected – escalated
9	Decrease in large loss frequency – Class D	-12	Movement as expected
10	Increase in large loss frequency – Class E	+10	Movement as expected
11	Decrease in large loss severity – Class A	-15	Movement as expected
12	Increase in large loss severity – Class B	+20	Movement as expected
13	Increase in large loss severity – Class C	+30	Movement not as expected – escalated
14	Decrease in large loss severity – Class D	-12	Movement as expected
15	Increase in large loss severity – Class E	+10	Movement as expected
16	Increase/decrease in payment patterns	+1	Minimal impact – as expected
17	Catastrophe exposure sensitivity	+30	Material sensitivity
18	Increase in most material operational risk scenarios	+5	Small impact – as expected
19	Sensitivity testing of dependency structure	+25	Material assumption with significant judgement

Making it top-down

Business focused

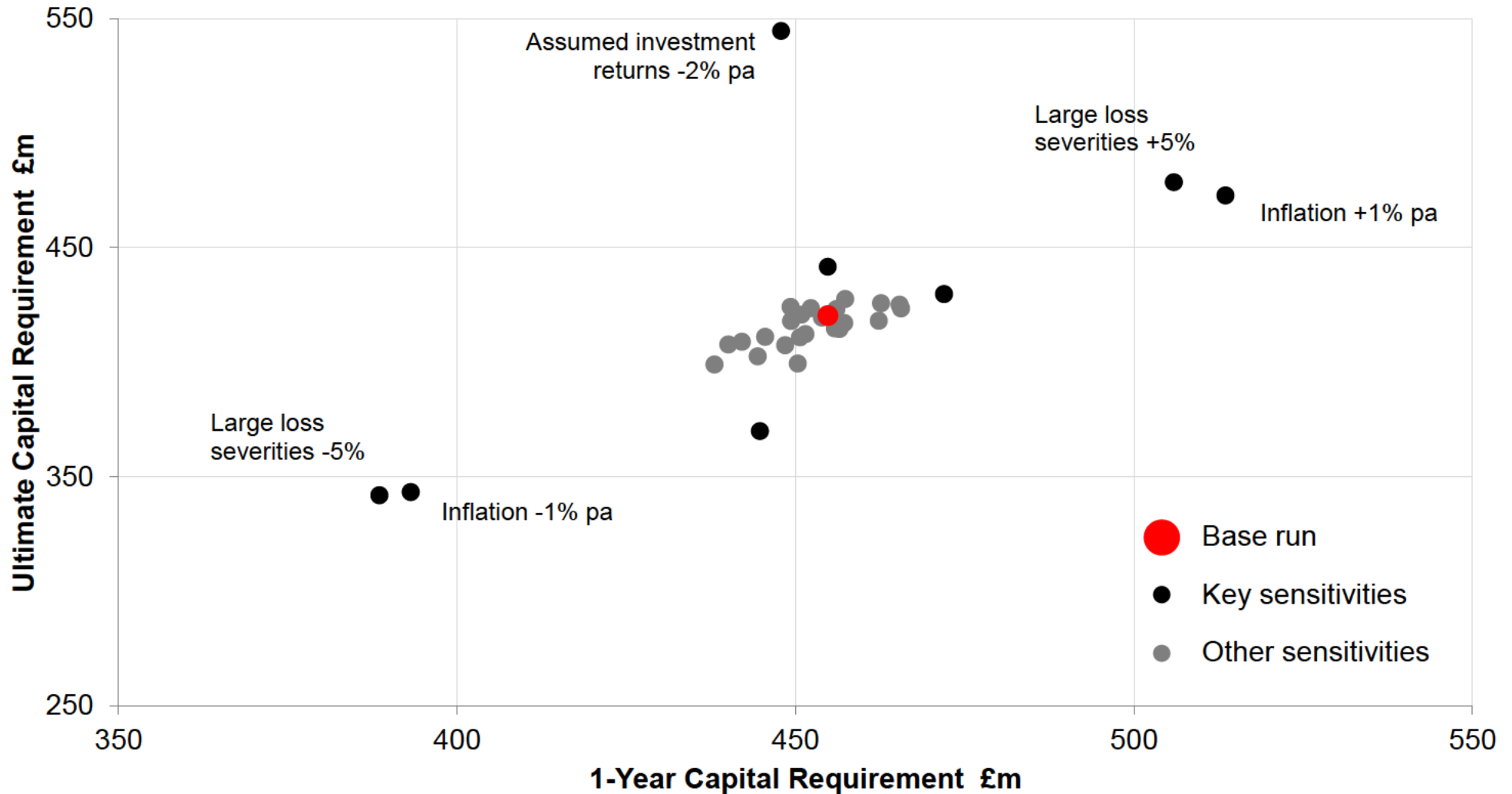
Consistent sensitivities

Forensic



1. What moves the dials?

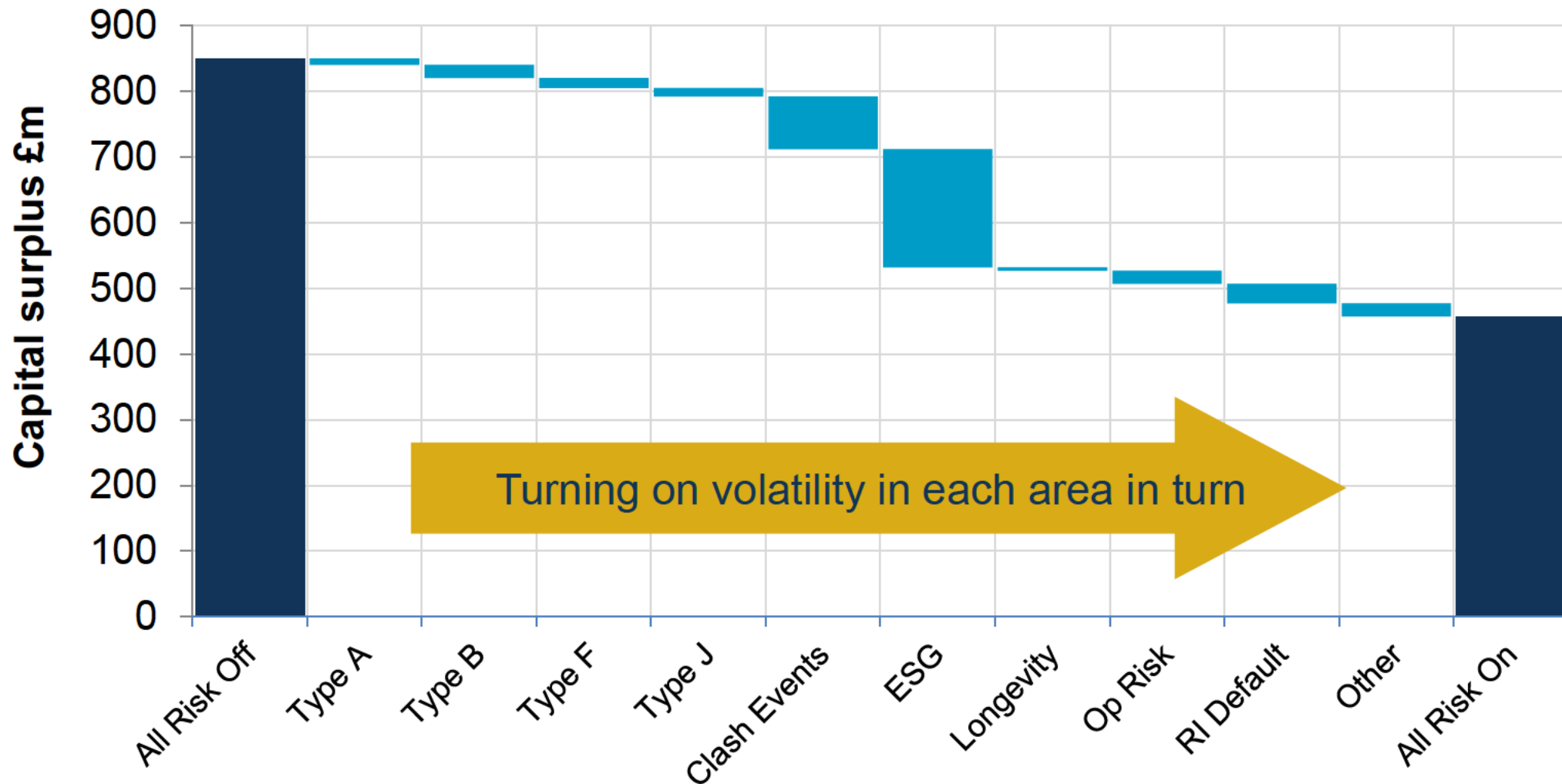
Sensitivity map





1. What moves the dials?

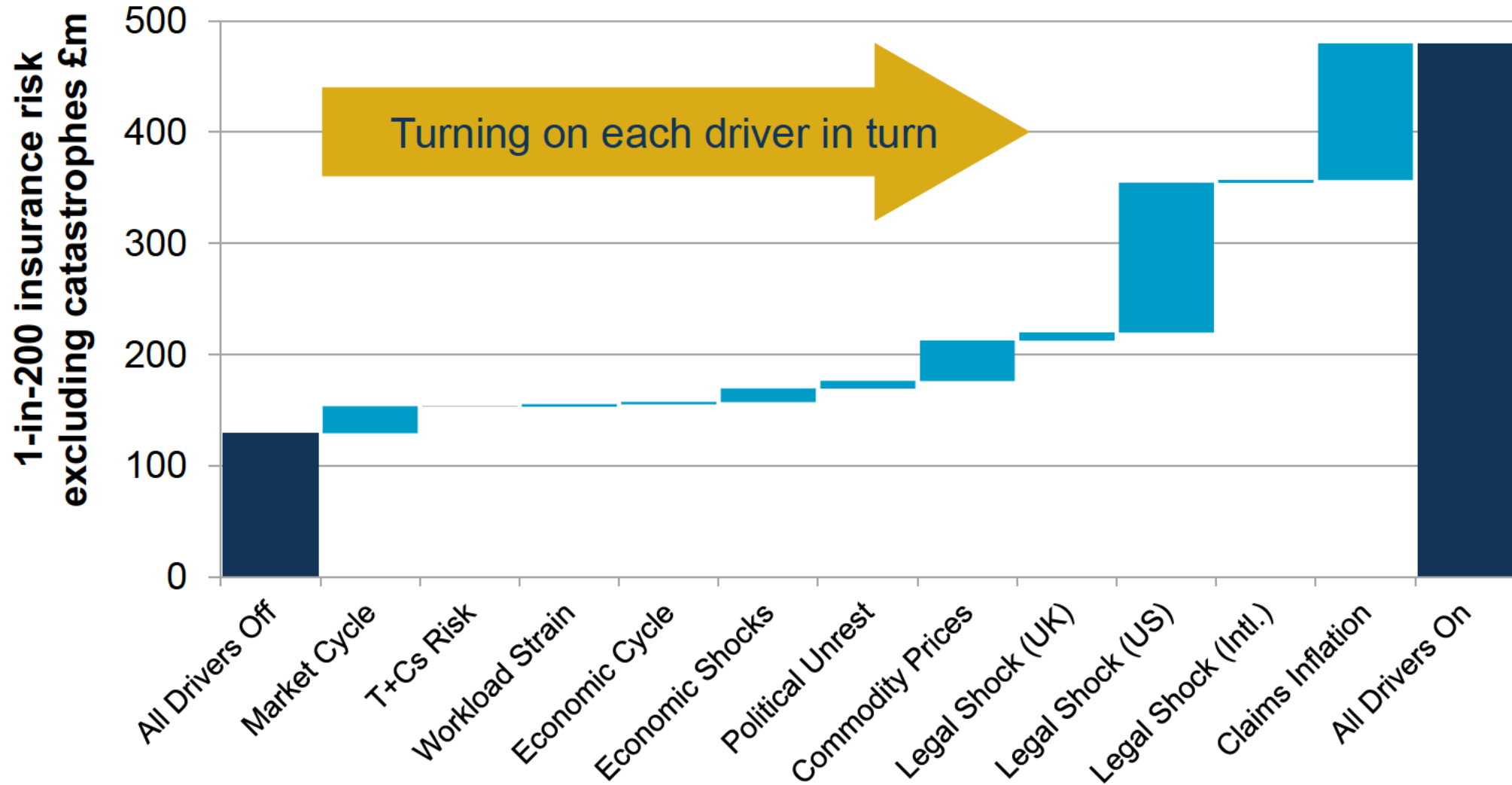
Volatility build-up





1. What moves the dials?

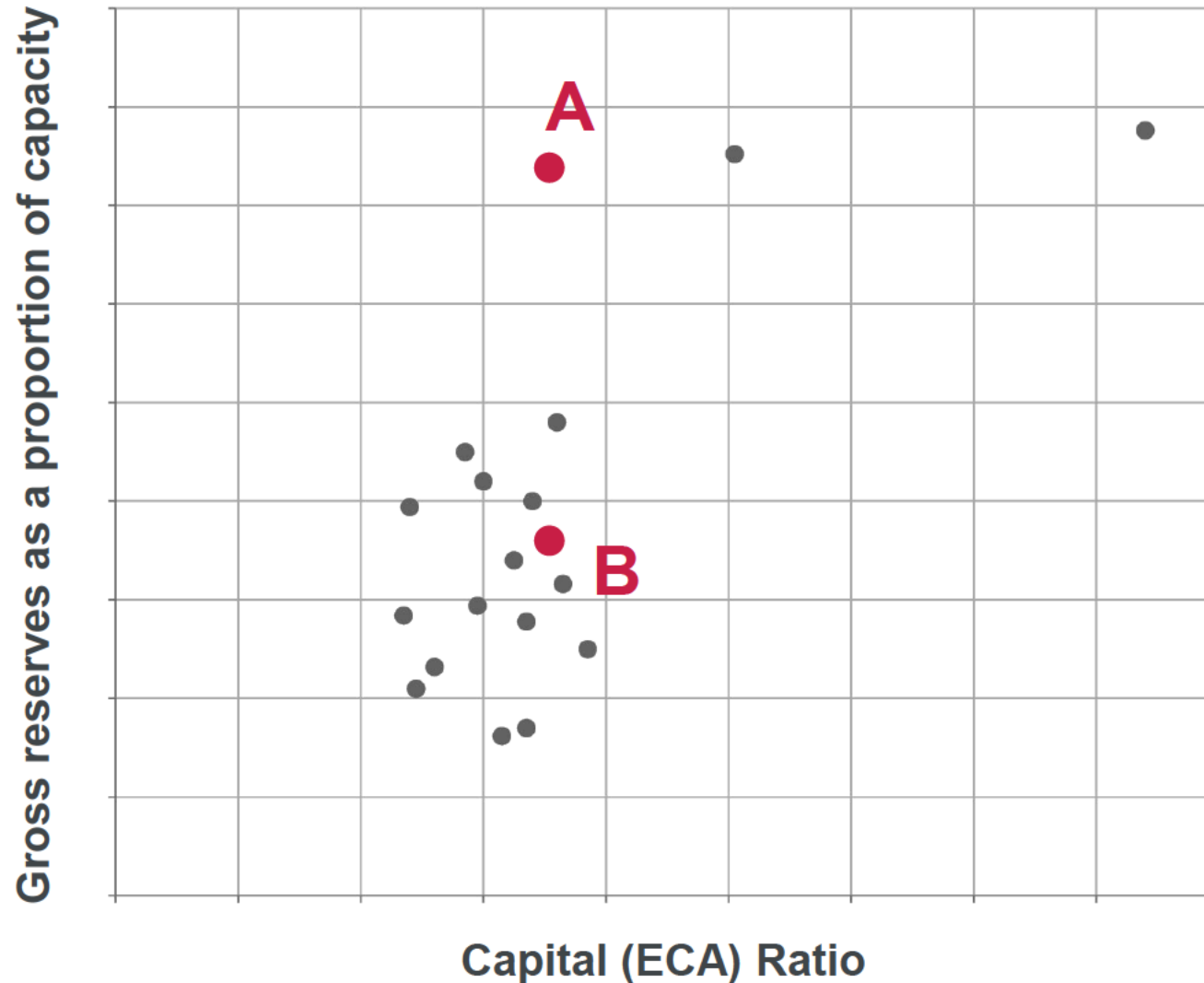
Driver build-up





1. What moves the dials?

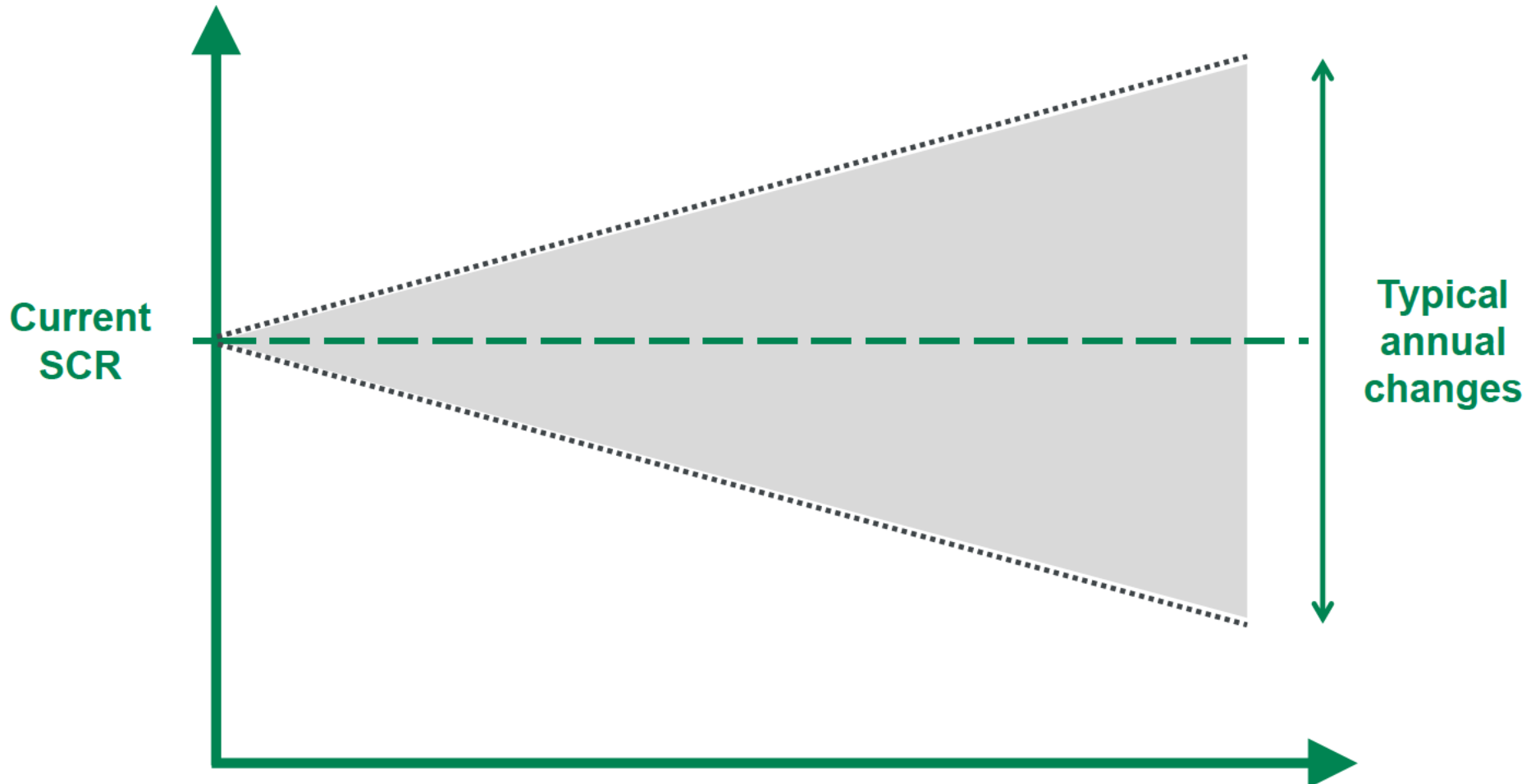
Peer group comparison





2. Understanding change

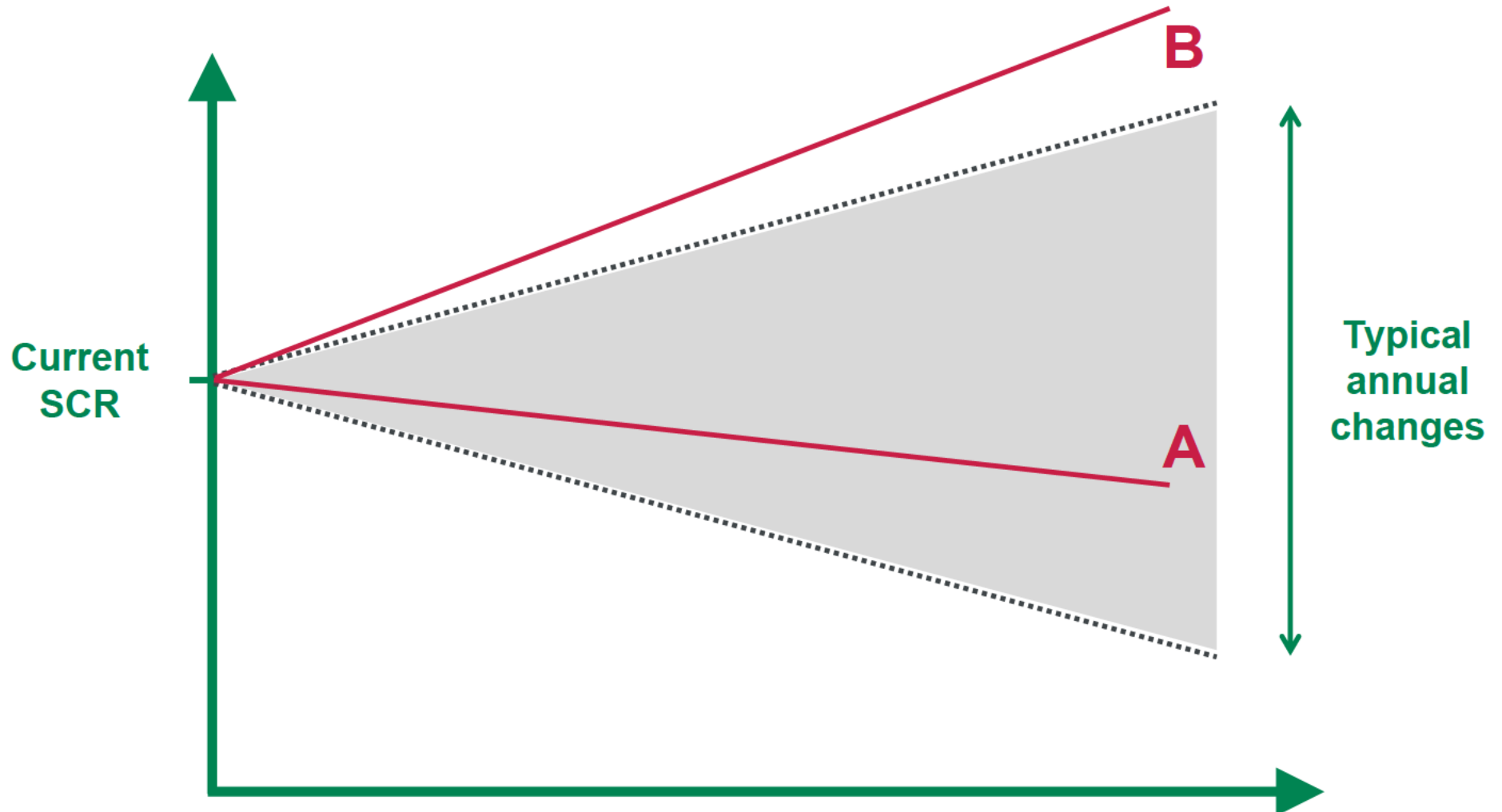
Corridor of uncertainty





2. Understanding change

Corridor of uncertainty





3. NED top-down questions

Example questions

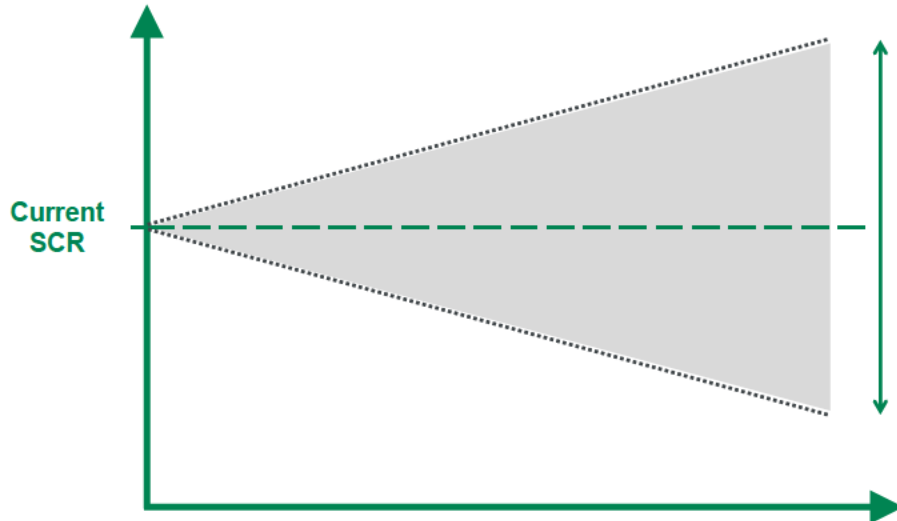
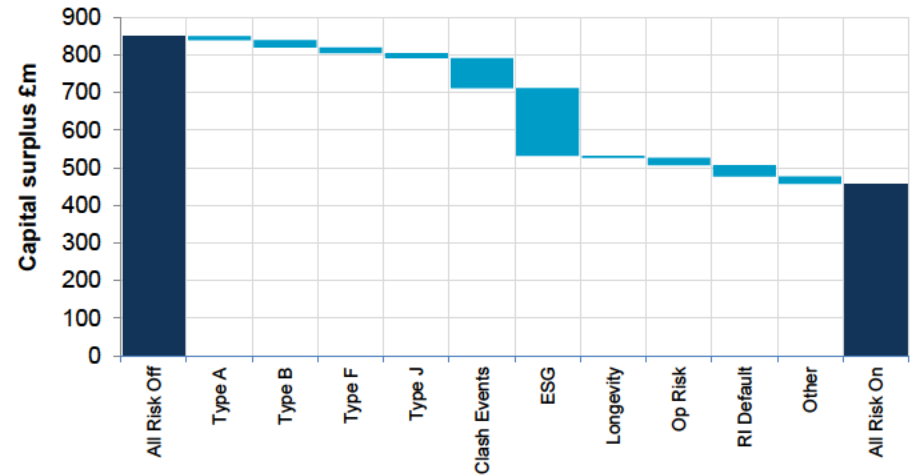
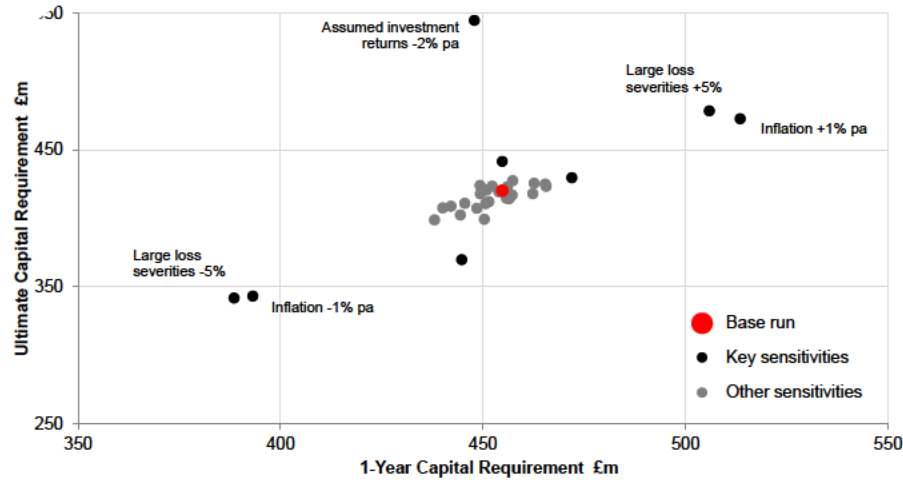
Q1: What are our 5 most material expert judgements?
How could we manage our reliance on them?

Q2: What are the key limitations of our model and why?
What could make these limitations worse?

Q3: How would we know if there were significant data issues
affecting the reliability of our modelling?



Next steps



Q1: What are our 5 most material expert judgements?
How could we reduce our reliance on them?

Q2: What are the key limitations of our model and why?
What could make these limitations worse?

Q3: How would we know if there were significant data issues
affecting the reliability of our modelling?

Three tips for top-down validation



1. Don't try to do everything

2. Simple language

3. Look for eureka moments