Improving business engagement using top-down validation

Tom Durkin, LCP
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

<table>
<thead>
<tr>
<th>Sensitivity Test</th>
<th>Impact on SCR</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increase in additional demand volatility - Class A</td>
<td>+15</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>2. Decrease in additional demand volatility - Class B</td>
<td>-20</td>
<td>Movement not as expected</td>
</tr>
<tr>
<td>3. Increase in additional demand volatility - Class C</td>
<td>+30</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>4. Decrease in additional demand volatility - Class D</td>
<td>-12</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>5. Increase in additional demand volatility - Class E</td>
<td>+10</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>6. Increase in large base frequency - Class A</td>
<td>+15</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>7. Increase in large base frequency - Class B</td>
<td>+30</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>8. Increase in large base frequency - Class C</td>
<td>+10</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>9. Increase in large base frequency - Class D</td>
<td>-20</td>
<td>Movement not as expected</td>
</tr>
<tr>
<td>10. Increase in large base frequency - Class E</td>
<td>+10</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>11. Increase in large base frequency - Class A</td>
<td>+15</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>12. Increase in large base frequency - Class B</td>
<td>+30</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>13. Increase in large base frequency - Class C</td>
<td>+10</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>14. Increase in large base frequency - Class D</td>
<td>-20</td>
<td>Movement not as expected</td>
</tr>
<tr>
<td>15. Increase in large base frequency - Class E</td>
<td>+10</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>16. Increase in large base frequency - Class A</td>
<td>+15</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>17. Increase in large base frequency - Class B</td>
<td>+30</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>18. Increase in large base frequency - Class C</td>
<td>+10</td>
<td>Movement as expected</td>
</tr>
<tr>
<td>19. Increase in large base frequency - Class D</td>
<td>-20</td>
<td>Movement not as expected</td>
</tr>
</tbody>
</table>

Making it top-down

- Business focused
- Consistent sensitivities
- Forensic
1. What moves the dials?

Sensitivity map

- Assumed investment returns -2% pa
- Large loss severities +5%
- Inflation +1% pa
- Large loss severities -5%
- Inflation -1% pa

Legend:
- Red: Base run
- Black: Key sensitivities
- Grey: Other sensitivities
1. What moves the dials? Volatility build-up

Capital surplus £m

- All Risk Off
- Type A
- Type B
- Type F
- Type J
- Clash Events
- ESG
- Longevity
- Op Risk
- RI Default
- Other
- All Risk On

Turning on volatility in each area in turn
1. What moves the dials?
Driver build-up

Turning on each driver in turn

1-in-200 insurance risk excluding catastrophes £m

- All Drivers Off
- Market Cycle
- T+Cs Risk
- Workload Strain
- Economic Cycle
- Economic Shocks
- Political Unrest
- Commodity Prices
- Legal Shock (UK)
- Legal Shock (US)
- Legal Shock (Infl.)
- Claims Inflation
- All Drivers On
1. What moves the dials? Peer group comparison
2. Understanding change
Corridor of uncertainty

Current
SCR

Typical
annual
changes
2. Understanding change
Corridor of uncertainty

Current SCR

Typical annual changes

B

A
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