Models and Operational Risk

7 September 2017
Today’s agenda

- Introductions
- Who are ORIC International?
- To model or not to model?
- What are others doing?
- Data inputs
- Concluding remarks
- Stay in touch
Introductions

• Operational risk manager
• 10+ years in the insurance industry
• 7+ in operational risk management
• Experience in operational risk processes and frameworks
• Led on scenario analysis and emerging risk and engaged on the capital modelling work streams
Who are ORIC International?
Operational risk: To model or not to model?
Key considerations

• Appetite
• Appropriateness
• Type of model/model design
• Technical knowledge/expertise
• Data inputs – applicability and relevance
• Benefits vs challenges?
What are others doing?
What are others doing?
Industry benchmarks

Types of models

- Single loss estimate
- Model based on scenarios with no loss data analysis
- Loss data analysis based model; scenarios not linked to capital model
- Hybrid Model – scenarios & loss data combined
Data inputs
Model inputs – Internal data sources

- Risk and control self assessment data
- Expert judgement - Scenario assessment data
- Internal risk event data
Model inputs – External data sources

- Public risk event data
- Consortium risk event data
- Scenario assessment benchmarks
Consortium loss event data

The value of pooling data with peer firms
Scenario Universe

- Industry developed best practice
- 38 benchmark specifications
- No membership required
Scenario Assessment Benchmarking

Scenario severity estimates

<table>
<thead>
<tr>
<th>Category</th>
<th>Maximum 1:1 year impact estimate (GBP)</th>
<th>Max 1:10 year impact estimate (GBP)</th>
<th>Max 1:100 year impact estimate (GBP)</th>
<th>Max 1:200 year impact estimate (GBP)</th>
<th>Max modelled severity (GBP)</th>
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<tbody>
<tr>
<td>Business Disruption &amp; System Failures</td>
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<td>Systems</td>
<td>216,512</td>
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<td>Clients, Products and Business Practices</td>
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<td>Advisory Activities</td>
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<td>Damage to Physical Assets</td>
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<td>Disasters and Other Events</td>
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<td>24,500,000</td>
<td>46,000</td>
<td>20,100,000</td>
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</table>

- Number of scenario run by business line and firm size
- Number of scenario run by risk event category level 1 and 2 and firm size
- Frequency assessments
- Frequency vs severity maps
- Anonymised firm specific scenario breakdown
- Risk event experience from consortium linked to scenarios
Concluding remarks
Decision time…

So you’re building a model…..

Things to remember:

1. The more complex the model, the more processes and model change governance will be required

2. Modelling can be important but it is not the full story

3. Use as much relevant data as possible to support and strengthen your model inputs

4. Ensure that the model can be used to provide business value

So you’re using SF…..

Things to remember:

1. Using SF is not a licence to neglect operational risk processes

2. Internal and external data should still be used to strengthen your operational risk framework

3. Potentially less capital efficient

4. Ensure that your ORSA tells a strong op risk story
Stay in touch

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