



ORIC
INTERNATIONAL

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?



ASK AN EXPERT





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?



OPERATIONAL RISK MANAGEMENT & MEASUREMENT

Survey by ORIC International and Oliver Wyman – Summary of results

March 2015

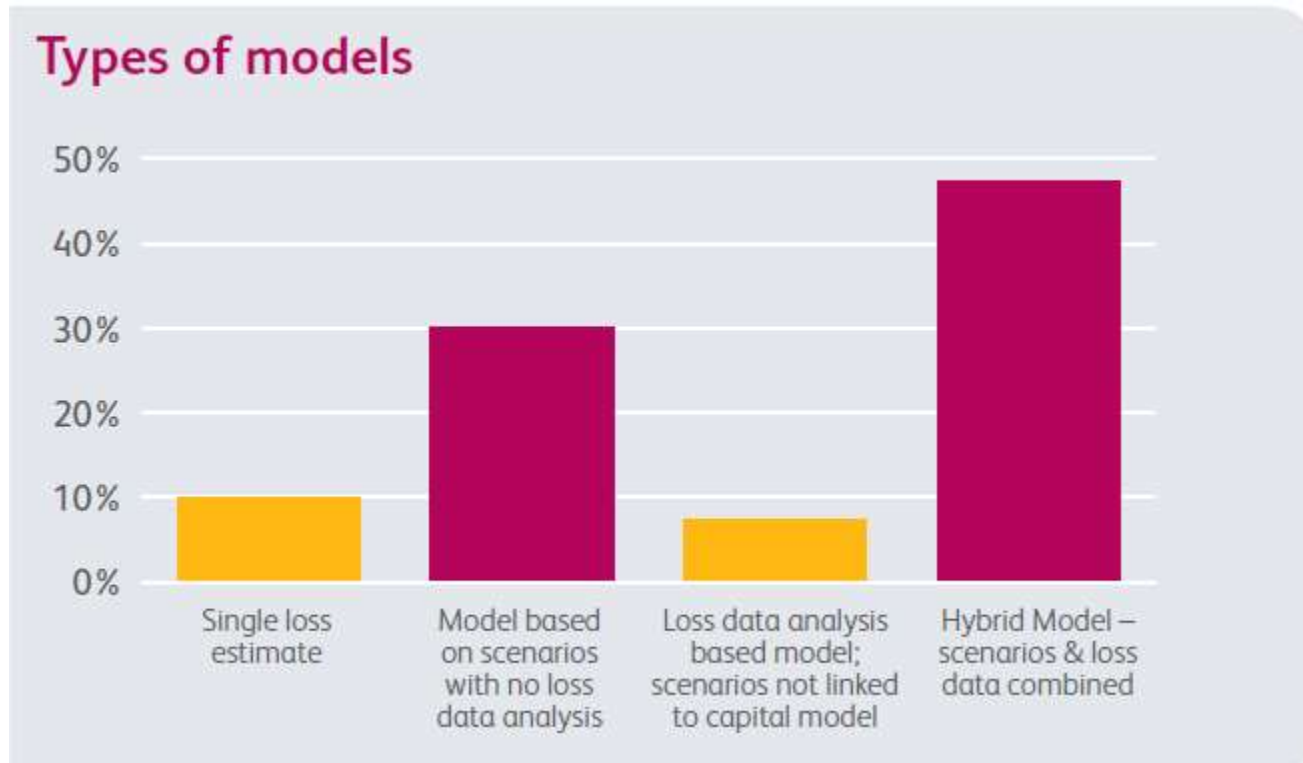
Capital calculation method for operational risk



Internal Models – Op risk as a % of SCR



Industry benchmarks





Data inputs

Model inputs – Internal data sources

Risk and control
self assessment
data

Expert judgement
- Scenario
assessment data

Internal risk
event data

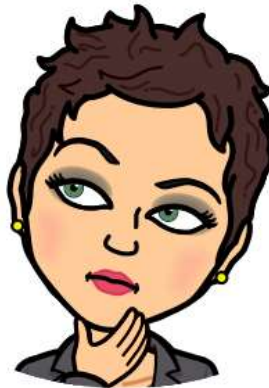


Model inputs – External data sources

Public risk event
data

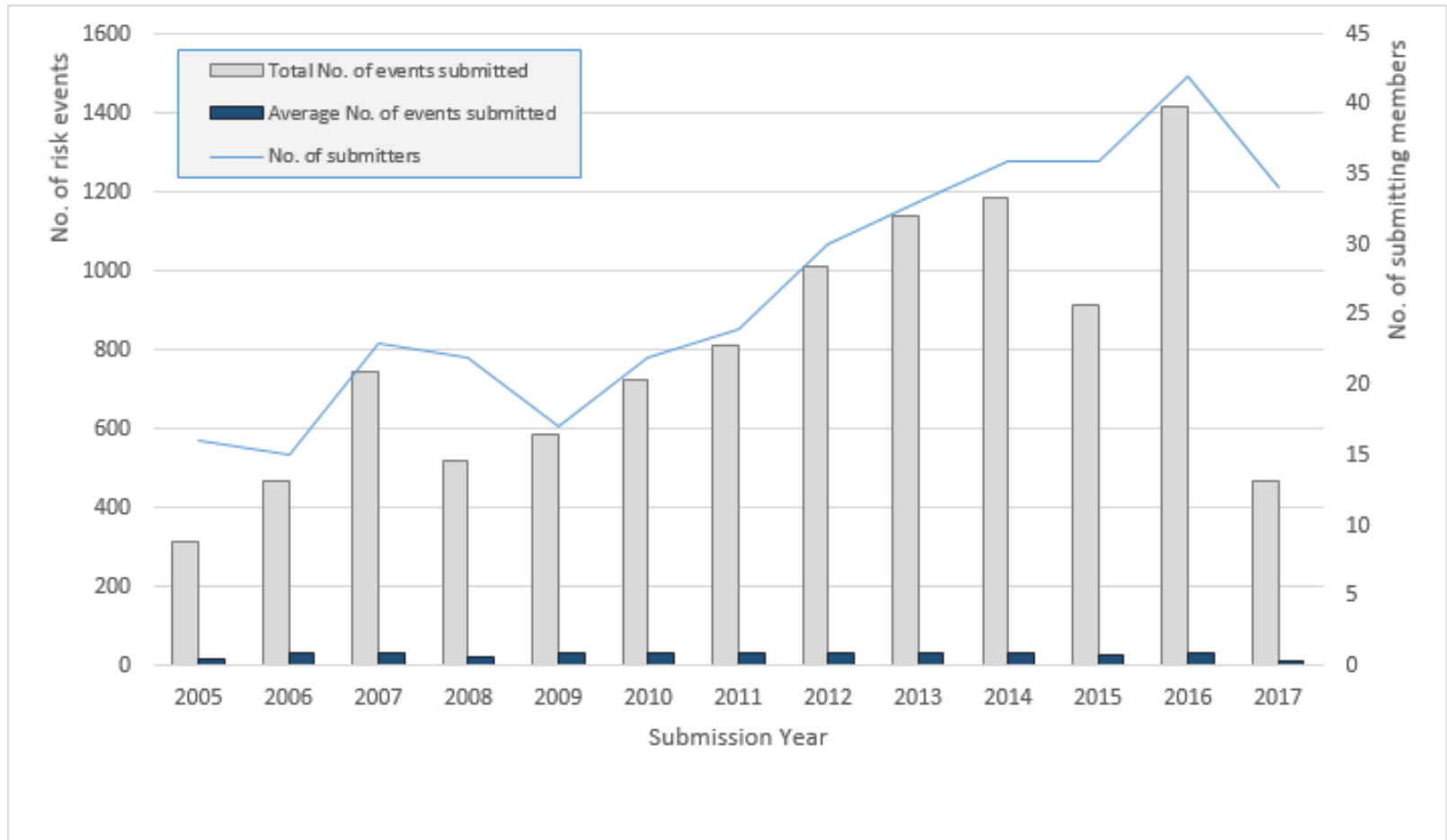
Consortium risk
event data

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	Maximum 1:1 year impact estimate (GBP)	Max 1:10 year impact estimate (GBP)	Max 1:100 year impact estimate (GBP)	Max 1:200 year impact estimate (GBP)	Max modelled severity (GBP)
Business Disruption & System Failures					
Systems	216,512	20,000,000	N/A	17,870	72,000,000
Clients, Products and Business Practices					
Advisory Activities	1,000,000	40,200,000	160,502	N/A	549,000,000
Improper Business or Market Practices	1,000,000	N/A	N/A	N/A	35,000,000
Product Flaws	1,400,000	21,500,000	N/A	5,000,000	15,200,000
Suitability, Disclosure & Fiduciary	1,500,000	50,000,000	N/A	3,000,000	524,000,000
Damage to Physical Assets					
Disasters and Other Events	4,500,000	25,000,000	24,500,000	46,000	20,100,000

- 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

Jenna.andrews@ORICInternational.com

+44 (0)207 216 7355

www.oricinternational.com





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