Operational Risk

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Agenda

- Definition and risk culture
- Current research
- Data issues
- Quantitative approach
- Qualitative approach
- Risk mitigation
- Conclusion

Definition and risk culture

- Definition of Operational Risk
  - The risk of loss resulting from inadequate or failed internal processes, people, systems or from external events
- Risk Culture
  - Operational risk is closely linked to the (risk) culture of an undertaking
  - The qualitative components play a large role in the management of operational risks

Current research

- CIA: Research Paper on OP Risk
  - Summary of OP risk, approaches on how to assess it
- Milliman: OP Risk Modeling Framework
  - Summary of present modeling approaches
- CRO Forum: OP Risk Management and Measurement
  - Consideration from both qualitative and quantitative aspects
- BCBS: Review for the Sound Management of OP Risk
  - Methods for identifying and managing OP risk should be seen as complementary to the calculation of OP risk capital requirements

Data issues

- Data sources
  - Beyond pure quantitative data , the capturing and understanding of qualitative information is critical
- Data quality
  - The issue of potential double-counting; losses can be registered more than once when put into connection with different other risk categories
- Data relevance
  - Any data uncovering a material risk generally leads to actions that make the data unusable for quantifying the future risk
- Quantitative approaches require expert judgment as reliable data for insurers is currently scarce

Quantitative approach

- A comprehensive assessment of OP risk is always an amalgamation of a qualitative and a quantitative approach
- When reliable and sufficient relevant historical data on OP risk events exists, a frequency and severity approach for computing an aggregate loss distribution can be used
- Loss Distribution Approach (LDA)
  - LDA implementation needs a through exploratory work before deciding on a model
- Causal Modeling/Bayesian Techniques
- Stress Testing

Qualitative approach

- OP risk has elements that are considered purely qualitative
- The current data sources for operational losses are rather thin
- It is imperative that risk assessments for OP risks take into account the risk management processes for these risks
- BMA has introduced the Commercial Insurer Risk Assessment
  - This self-assessment is split into three components: corporate governance, risk management function and risk management process
  - For the last item, it assesses the level of maturity (4 possible levels) of each risk management process phase (identification, measurement, response and monitoring & reporting) for each operational risk category (8 of them)
  - Scores are allocated to the assessed items and the total score is matched with an operational risk charge, which can range from 1% to 10% (of required capital for underwriting, market and credit risks)

Risk mitigation

- Typically a capital charge or other mitigation method acts to reduce risk management, but adding an OR charge based on past losses (or the lack thereof) will have no impact on reducing future risk

- The quality and maturity of the risk management processes have a material impact on the severity and frequency of potential operational losses

Conclusion

- OP risk is most likely the one risk which has the strongest qualitative aspects for insurers
- Choosing a predominantly quantitative approach would fundamentally fail to describe and assess this risk appropriately
- The main operational risk focus should thus be more on how operational risk is managed than how it is measured. The ORSA requirements currently being developed mirror this focus

Thank you

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