

Report from DAV Working Group Cyber

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DAV

DEUTSCHE
AKTUARVEREINIGUNG e.V.



DGVFM

DEUTSCHE GESELLSCHAFT
FÜR VERSICHERUNGS- UND
FINANZMATHEMATIK e.V.

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DAV Working Group Cyber – Overview and results

Ausschuss Schadenversicherung



DAV Working Group Cyber
"AG Cyber" – Working Group
on Data and Methods for
Cyber Risk Assessment



- January 2019 – Foundation of Working Group

Publications:

- July 2020 – *Daten und Methoden zur Bewertung von Cyberrisiken*
- June 2022 – *Cyberrisiken – Herausforderungen und Einfluss auf das Risikomanagement von Versicherungsunternehmen*
- November 2022 – *Use Case zur Modellierung (Beispielportefeuille, Modellansätze inkl. Programmierung)*
- Webinare, presentations, Cyber Coffee Lounge
- Publications such as press articles by DAV on the topic of cyber



Members of the AG Cyber

- Nina Kilian (BaFin)
- Jonas Becker (Munich Re)
- Christine Fonger (Gothaer)
- Jan Gompers (Allianz)
- Markus Kohlen (Deutsche Rück)
- Dr. Hendrik Kläver (Gen Re)
- Florian Liebe (EY)
- Dr. Carsten Liese (HDI)
- Philipp Mieke (Hannover Rück)
- Dr. Mathias Raschke (Ecclesia Re)
- Dr. Leonie Ruderer (R+V Re)
- Frank Sagerer (Allianz)
- Maximilian Stosch (Munich Re)
- Roland Voggenauer (Humn)
- Dr. Nikolai Vogl (Munich Re)

Current projects of the AG Cyber



Realistic Disaster Scenario

- Creation of a *Realistic Disaster Scenario* for ransomware affecting underwriting risk
- Development of a calibration of the relevant risk factors and shocks
- Enhancement of existing R-Code (c. f. *Use case zur Modellierung* from 2022)



Systemic Cyber Risk

- Holistic perspective on management on cyber risk from a macroprudential perspective
- Relate systemic cyber risk to existing macroprudential tools
- Implications regarding risk governance framework of cyber risk for undertakings



Loss taxonomy

- Development of a loss taxonomy for cyber
- *Consideration of existing frameworks (GDV, VERIS (Vocabulary for event recording and incident sharing) framework)*

Current projects of the AG Cyber – Realistic Disaster Scenario



Realistic Disaster Scenario

Scope

- Creation of a Realistic Disaster Scenario for ransomware for the cyber underwriting risk
- Investigating on a reasonable calibration
- Focus on primary insurance with SMEs in Germany

Challenge

- Identify relevant risk factors for SME portfolio in germany
- Determine reasonable shock levels for risk factors
- Think about a meaningful validation for the constructed scenario

Benefit

- Possible applications in risk management
- Challenger model to commercial models or to models developed in-house
- Basis for loading in pricing

Current projects of the AG Cyber – Systemic Cyber Risk



Systemic Cyber Risk

Scope

- Explore different concepts of systemic risk and adopt it to cyber
- Discuss macroprudential tools to cope with cyber risk
- Investigate consequences for the risk governance framework of an insurance undertaking

Challenge

- Identify relevant risk factors for SME portfolio in germany
- Determine reasonable shock levels for risk factors
- Think about a meaningful validation for the constructed scenario

Benefit

- Easily accessible overview of cyber systemic risks for actuaries
- Condensed insights to models (EIOPA), Risk Governance
- Framework as "basis for discussion" with entities/supervisors in relation to measures



Thank you for your attention

Any questions, ideas or issues you would like
to raise?

Happy to discuss!

→ Please do not hesitate to contact us:
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