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Proceedings of the Researchers‘ Corner for the 16th Annual Meeting of the Sponsoring Group Reinsurance 2023

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Table of Contents

Foreword 4

Cologne Research Centre for Reinsurance 6

Cyber warfare from the (re)insurance perspective (Cremer) 8

Captives: Increasing importance due to the market hardening
in reinsurance *(Dirks)* 14

Who'd like a round of reinsurance? No way – I always lose at that! *(Joniec)* 20

ESG – Challenges in the reinsurance of renewable energies *(Winkler)* 25

Disaster insurance without premium payment – The concept of contingent liability in
Switzerland *(Lassen)* 31

The impact of the US-China trade war on the Chinese motor-insurance market *(Wang)* ..37

Directory of publications of the Cologne Research Centre for Reinsurance 42

Impressum 61

Foreword

The 16th Annual Meeting of the Sponsoring Group Reinsurance [Förderkreis Rückversicherung] was held 16 June 2023 in Niederkassel, near Cologne. Some 90 representatives of the (re)insurance companies involved in the Sponsoring Group took part in the meeting, along with guests. Offered for the ninth time as part of the Annual Meeting, the Researchers' Corner gave the six academic researchers at the Cologne Research Centre for Reinsurance an opportunity to deliver a presentation on the research project in which each is involved in 2023.

Over the course of three sessions, the most important results of the scientific studies by the Cologne Research Centre for Reinsurance were presented and discussed. The heterogeneity of the topics presented reflects the dovetailing of Cologne Research Centre with reinsurance practice.

Session 1

a) Frank Cremer (M.Sc., FCII, cand. PhD.): Cyber warfare from the (re)insurance perspective

b) Jörg Dirks (M.Sc., FCII): Captives: Increasing importance due to the market hardening in reinsurance

Session 2

a) Robert Joniec (PhD, FCII): Who'd like a round of reinsurance? No way – I always lose at that!

b) Erik Winkler (M.Sc.): ESG – Challenges in the reinsurance of renewable energies

Session 3

a) Fabian Lassen (M.Sc., FCII): Disaster insurance without premium payment – A concept from Switzerland

b) Lihong Wang (M.Sc., FCII): The impact of the US-China trade war on the Chinese motor-insurance market

With the publication series, ‘Proceedings of the Researchers’ Corner’, the Cologne Research Centre for Reinsurance meets the desire for publication of the research results of our researchers along with the related discussions. The titles are reproduced in keeping with the above agenda of the Researchers’ Corner for the 16th Annual Meeting of the Förderkreis Rückversicherung [Sponsoring Group Reinsurance].

(From left to right: Prof. Stefan Materne, Phillip Sampson, Fabian Lassen, Dr. Robert Joniec, Frank Cremer, Erik Winkler, Jörg Dirks, Florian Grüttner, Lihong Wang, Prof. Dr. Michael Fortmann and Prof. Dr. Jan-Philipp Schmidt. Evelyn Hartramph and Secil Güven are not pictured.)

We would like to express our deep gratitude to the sponsors with whose assistance the activities of the Cologne Research Centre for Reinsurance, and the Annual Meeting of the Sponsoring Group Reinsurance in particular, are possible.

Cologne, July 2023 Prof. Stefan Materne

Cologne Research Centre for Reinsurance

The Professorship for Reinsurance was established in 1988; Prof. Stefan Materne received the first appointment to the professorship. The position was redesignated the Chair for Reinsurance by rectorate decision in 2008. The basis for this was the defined field of instruction and research comprised by reinsurance together with related topics such as alternative risk transfer, captives, insurance-linked securities, etc. In particular, the integration of the Chair for Reinsurance within the Institute of Insurance Studies at the Cologne University of Applied Sciences permits a focus on instruction and research in the field of reinsurance. The focus on the specialisation in reinsurance, in turn, promotes the international reputation of the chair and of the affiliated Cologne Research Centre for Reinsurance.

The Cologne Research Centre for Reinsurance currently employs five academic researchers, three academic project managers and two student assistants and ensures the bidirectional transfer of knowledge between theory and practice. This takes place, firstly, through continuous, bilateral project cooperation as well as an exchange of views with the respective experts in the field, and secondly, through publications by the Cologne Research Centre for Reinsurance and the two major scientific events held each year (Cologne Reinsurance Symposium, Annual Meeting of the Sponsoring Group Reinsurance).

Since 2004, the Cologne Research Centre for Reinsurance has hosted the Cologne Reinsurance Symposium free of charge, an annual event with more than 500 attendees. This event, with its top-flight presenters and international implementation with the aid of simultaneous interpreting, shapes the international reputation of our reinsurance-oriented activities.

The Cologne Research Centre for Reinsurance is fully financed by third-party funds provided from the Sponsoring Group Reinsurance, in which there are currently 84 companies involved. These are risk carriers (with an approx. 85% market share worldwide) as well as cedants and reinsurance-oriented service providers. Whether in the academic world or in the reinsurance market, there is no other institution similar to the Sponsoring Group Reinsurance.

Förderkreis Rückversicherung

Current as at: July

The Annual Meeting of the Sponsoring Group Reinsurance is held once a year, offering another major scientific event for the Cologne Research Centre for Reinsurance. Participants include representatives of (re)insurance-company members of the Sponsoring Group Reinsurance along with invited guests. *Researchers' Corner*, a lecture event in which the six current academic researchers of the Cologne Research Centre for Reinsurance present the results of their research, represents another important opportunity for interaction with practitioners.

The solid practical relevance of our research activities is manifested in their full financing by the Sponsoring Group Reinsurance – which is funded by the (re-) insurance industry – and in excellent attendance at the Cologne Reinsurance Symposium and the Annual Meeting of the Sponsoring Group Reinsurance.

We want to thank the Sponsoring Group Reinsurance, the University leadership and administration, ivw Köln [the Institute of Insurance Cologne] and the employees of the Cologne Research Centre for Reinsurance for all their support for research projects and events.

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16th Annual Meeting of the Sponsoring Group Reinsurance
Researchers' Corner, 16 June 2023

Cyber warfare from the (re)insurance perspective

Frank Cremer, M.Sc. / PhD cand. / FCII

Motivation and point of departure

Cyber warfare and state-backed cyber-attacks pose an international challenge

- More than 700 verified, state-backed cyber-attacks have been carried out since 2005[1]
- The presumably state-sponsored 'NotPetya' cyber-attack resulted in approx. USD 10 billion in damage[2]
- The 'Stuxnet' cyber weapon destroyed approx. 1,000 centrifuges of the Iranian nuclear-enrichment programme[3]

[1] CFR Tracker, 2022
[2] Ferland, 2019
[3] Nye, 2017

A look at cyber insurers

- Uncertainty on the part of cyber insurers due to the lack of adjudication on the topic of war
- Lack of data and clear definitions complicate possible insurance solutions and the growth of the cyber market[4]
- Concerns about the exclusion of losses due to cyber war and state-sponsored cyber attacks

[4] Bateman, 2020

Methodology

Conducting semi-structured interviews

Distribution of interviewees

Group	Number
Insurance Broker	6
Primary Insurer	12
Reinsurer	4

Overall approach

1. Selection and enquiries of experts
2. Interview via Zoom or MS Teams
3. Transcription via Amberscript
4. Sending of the raw material
5. Evaluation of the material via MAXQDA
6. Summary of the findings

List of questions

- Problems with the war exclusion?
- Difference between traditional and cyber warfare?
- Rejection of claims?
- Has the claims landscape changed?
- Are there ways to insure against the risks of cyber warfare?

Results

Problems with the war exclusion

- Lack of clear definition and adjudications
- Origin of the clause does not take cyber risks into account
- Burden of proof
- LLMA clauses are considered critically but are an important step

No rejection of claims

Difference between traditional and cyber warfare

- Different views among respondents
- Common features → Damage to and destabilisation of a country
- Three clear differences were identified

Change in the claims landscape?

- Mixed distribution
- Industry is more lucrative than SMEs
- Increase in critical infrastructure
- Deployment of resources for Ukraine / Russia conflict

Possible solutions for insurability (future)

- Risk pooling
- ILS
- Elements of different contract constellations are conceivable

16th Annual Meeting of the Sponsoring Group Reinsurance

Researchers' Corner, 16 June 2023

Cyber warfare from the (re)insurance perspective

Frank Cremer, M.Sc. / PhD cand. / FCII

Frank Cremer (M. Sc., cand. PhD / FCII) works as an academic staff member at the Cologne Research Centre for Reinsurance. Under a partnership with the University of Limerick, he is completing his doctorate on various aspects of the topic of cyber (cyber risks, risk transfer, cybersecurity). For the Cologne University of Applied Sciences, the doctoral research is being supervised by Prof. Dr. Michael Fortmann.

Due to their unpredictable nature and sweeping impacts make cyber risks, including cyber warfare and state-sponsored cyber-attacks, present a considerable challenge to many areas of our daily lives. In today's connected world, the threat of cyber risk is omnipresent. Cyber warfare and state-sponsored cyber-attacks are of particular concern, as they are initiated or supported by governments or state actors. Often, the purpose of such attacks is to compromise critical infrastructure, government systems, businesses, or citizens' privacy. The impacts can be devastating. They range from financial losses for businesses to theft of intellectual property, disruptions of public order and threats to national security. Critical infrastructure such as power grids, telecommunications systems and transport systems can be vulnerable to such attacks, as their functioning is closely intertwined with digital networks.

According to estimates by the Cyber Operations Tracker database of the Council on Foreign Relations, at least 700 verified state-sponsored cyber-attacks have been carried out since 2005 (CFR, 2022). The impact of the allegedly state-sponsored cyber-attack known as 'NotPetya' was among the most severe to date (Ferland, 2019). This data-destroying malware infected computers at hundreds of firms around the world and led to an estimated $10 billion in loss. In 2010, a computer virus known as 'Stuxnet' led to the destruction of more than 1,000 Iranian centrifuges and hampered Iran's programme of uranium enrichment. One of the earliest deployments

of a suspected cyber weapon in a state-sponsored attack, Stuxnet demonstrated the real consequences of such attacks (Nye 2017).

Where insurers are concerned, the war-exclusion clause seeks to exclude such risks from insurance cover. The reasons for this lie in the cumulation of risks and the impossibility of quantifying the scope of damage in the event of a loss. Nevertheless, there are further challenges in relation to the clause and the insurance sector. The lack of adjudications around the clause means uncertainty for insurers and insured alike. A lack of data and clear definitions also hinders the development of possible insurance solutions and the growth of a sustainable cyber market.

The war-exclusion clauses cannot, however, serve as a definitive indication of how cyber insurers view and approach the risks associated with of cyber war. Given the dynamic nature of cyber threats, there is still a need for more research to fill knowledge gaps and put possible knowledge into practice.

To gain some insight into how the insurance sector views cyber-war risks, semi-structured interviews were conducted with 22 representatives of the insurance industry. With a direct bearing on the value chain, interviews were conducted with people in primary insurance, reinsurance, and the insurance-brokerage sector. Respondents were contacted either directly or via the Cyber Expert Group of the Association of Insurance Managers [Vereinigung der Versicherungsbetriebswirte]. Where interview requests were accepted, 48 hours prior to the interview, respondents received a memo to read that outlined the course of the interview, the topics that would be covered, and the obligations involved. The interviews were conducted using the Microsoft Teams or Zoom software; the industry experts had granted their consent to recording. Roughly 72 hours after the interview, a draft of the interview notes was sent to the experts for their review and for comments that could be added, modified, or deleted prior to signature. Once the raw material had been released, it was coded using MAXQDA and summarised at the end.

The interview consisted of five questions that interviewees were free to answer or not. The questions were as follows:

- What problems do you see in excluding war from cyber insurance?
- Are there any distinctions between traditional and cyber warfare?
- Have any claims already been rejected due to the Ukraine / Russia conflict, or are you aware of any?
- Has there been a change in the claim landscape as a result of the conflict?

- Do you see any opportunities or solutions for insuring oneself against the risks of cyber warfare?

The summarised answers are now presented below. It should be noted, however, that not every question had a clear or comprehensive answer. The complexity and diversity of responses around the risks of cyber warfare can only be roughly presented in the context of this article.

Where the problems of excluding war are concerned, it was noted that there is currently a lack of clear adjudications by the authorities; many also observed that the origins of the clause predated cyber risks. Added to this is the burden of proof involved, which remains with the insurer. During the talks, it was also pointed out that the LLMA clause is viewed critically. However, it is considered important for a careful review, with possible adjustments made, to meet the current threats and challenges in the field of cyber warfare and state-backed cyber-attacks.

A diversity of views was expressed in response to the second question, but this only underscores that this topic is very abstract. During the conversations, it emerged that the differences involve the type of attack, its visibility, and its impacts. It becomes clear that cyber risks constitute a complex and multi-layered problem that requires a differentiated view.

All interviewees replied clearly in the negative when asked if damages had already been rejected due to the war clause. This shows that survey participants are not aware of any cases in which claims have been rejected as a result of the conflict. Further investigation of possible claims also failed to produce new findings in this connection.

There were a range of responses to the penultimate interview question, with the most significant responses briefly listed here. The question asked whether the claims landscape had changed since the war. It was noted that larger industrial companies were more often viewed as a more attractive target than SMEs, and that attacks on critical infrastructure had increased. These attacks were usually not, however, committed at the same scale seen in the past. Most respondents thought that resources were being used mainly for the war effort.

Regarding the final question, many respondents agreed that the risk of cyber war is not insurable at this time, as a suitable calculation is simply not possible appropriately and cumulative risk it represents is too high. They were slightly optimistic, however, that sufficient data could be collected over the years to map a suitable modulation.

This report is a summary of the presentation on 16.06.2023.

Discussion

- Were there any similarities or differences in the three groups of interviewees' responses to the questions?

  Generally speaking, it could be said that the insurance brokers were more likely to respond to the questions from the customers' point of view. Primary insurers and reinsurers usually answered the questions from the point of view of the risk involved. One feature common to all interviewees was that they currently viewed the war-exclusion clause as problematic.

- Are there possible incentives for companies to improve their cybersecurity in the context of cyber insurance?

  To begin with, robust cybersecurity protects companies from financial losses that can result from cyber-attacks and data loss. By protecting their IT systems, sensitive data and customer information, firms can prevent costly business interruptions and avoid recovery costs and litigation. Robust cybersecurity also makes it possible for businesses to operate without interruption. Organisations that are protected against cyber-attacks can ensure smooth operations, provide products and services without interruption and maintain their customers' trust.

  Improved cybersecurity offers companies a variety of incentives in the context of cyber insurance. These incentives include reductions in premiums for firms with a proven track record of implementing solid security measures. Strong cybersecurity also provides access to higher insurance amounts and improved insurance terms and conditions. Companies with good cybersecurity can also benefit from accelerated claims settlement while gaining the confidence of insurers, which can lead to tailor-made insurance solutions. All in all, improved cybersecurity can not only reduce the risk of cyber-attacks but can also positively affect insurance premiums, claims settlement and insurer confidence.

References

- CFR (2022): Cyber Operations Tracker, https://microsites-live-backend.cfr.org/index.php/cyber-operations, accessed 1 June 2023.

- Ferland, J. (2019): Cyber insurance – What coverage in case of an alleged act of War? Questions raised by the Mondelez v. Zurich case. Computer Law & Security Review, 35, 369-376.

- Nye, J. S., Jr. (2017): Deterrence and Dissuasion in Cyberspace. International Security, 41, 44-71.

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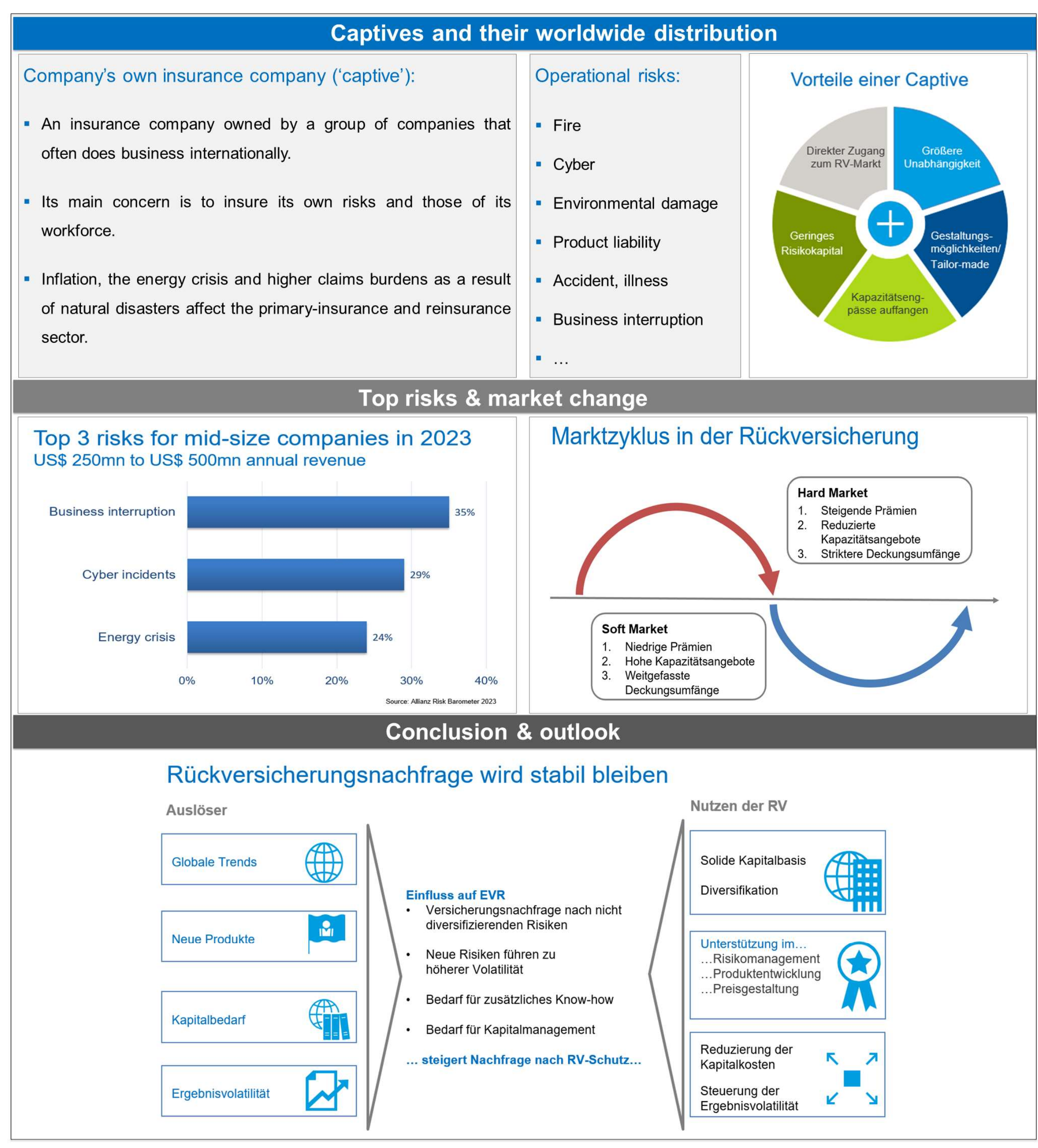
16th Annual Meeting of the Sponsoring Group Reinsurance
Researchers' Corner, 16 June 2023

Captives: Increasing importance due to the market hardening in reinsurance

Jörg Dirks, M.Sc. / FCII



16th Annual Meeting of the Sponsoring Group Reinsurance

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Captives: Increasing importance due to the market hardening in reinsurance

Jörg Dirks, M.Sc. / FCII

Jörg Dirks is a researcher at the Cologne Research Centre for Reinsurance at the Cologne University of Applied Sciences, where he works under Prof. Stefan Materne and investigates the topic of captives and their increasing importance as a result of the market hardening in reinsurance. Jörg Dirks works full-time in the field of 'Retrocession & Capital Markets' at Hannover Rück SE.

In this research, the focus is on the hardening reinsurance market, the question of whether captives are of increasing interest to industrial companies, and the extent to which new captives have been created in the current hard market cycle.

The primary and reinsurance market is in a state of upheaval. Increasing inflation, the depreciation of the euro against the US dollar, the beginning of a turnaround in interest rates and the significantly higher burden of claims – especially due to natural disasters – all present the industry with fresh uncertainties. Alongside these central changes, there are features specific to the insurance business – such as more analytical and thus stricter risk forecasting, or quantitative risk analyses in underwriting – that have also contributed to the emergence of 'alternative risk transfer', or 'ART' for short.

With market conditions hardening and falling capacities in primary insurance and reinsurance, the approach to risk management in industrial companies is being rethought; risks that were not insured in the past (e.g., business interruptions and cyber, reputational, and pandemic-related risks) are now being re-analysed. As operational risks such as fire damage, cyber risks, environmental damage, product-liability risks, or business interruption play a crucial role for both small and large industrial companies, these companies' own approach to risk management must be continuously analysed and monitored to avoid financial losses. Shortages of capital

and rising costs add to the focus on captives (known as firms' own insurance companies), particularly for SMEs that have viewed this form of risk transfer as uneconomical or inefficient in the past.

A captive (also referred to as a 'pure captive') acts as an enterprise's own insurance company and is usually a wholly owned subsidiary in the hands of what is often an international trading, industrial or service company. There are other forms in addition to this, such as protected cell captives (PCC), which avail themselves of a captive that already exists in order not to have to set up an insurance unit of their own. Consequently, protected cell captives are faster, more economical, and more efficient to use. Group captives also offer firms an option to hedge against risks on their own. Often, group captives consist of multiple, heterogeneous groups of companies ostensibly establish to permit longer-term cost stability than would be possible in the traditional primary and reinsurance market (cf. HZ Insurance, Rüedi et al., 2023). Specifically, the advantages of a captive – such as direct access to the reinsurance market, greater independence from the primary and reinsurance markets as well as greater design flexibility in the sense of 'tailor-made solutions' – play a greater role for industrial companies than in the soft setting of the reinsurance market. With captives, then, industrial companies can optimise their cover structures and avoid the consequences of market swings (e.g. price increases for certain risks, more selective underwriting, etc.) in primary and reinsurance.

With a captive, risks can be outsourced from business operations and insured through an insurance company founded and licensed by the group itself. With captives in their simplest form, companies can leverage their equity and supplement available capacities in the traditional reinsurance market (cf. Versicherungswirtschaft, Thomas et al., 2022). With captives, then, industrial companies can optimise their cover structures and avoid the consequences of market swings (e.g., price increases for certain risks, more selective underwriting, etc.) in primary and reinsurance.

While captives are in wide use by larger industrial companies with annual revenues in excess of USD 500 m, smaller companies with an annual revenues exceeding USD 100 m have also become increasingly involved in establishing captives. In summary, captives represent an innovative solution for operational risk management, particularly against the backdrop of stricter conditions and rising premiums.

As a key element of a risk-management strategy, captive solutions can realise a high financial savings potential while improving a company's operational performance.

Alongside the advantages that captives present, however, they also entail significant challenges that must be given close consideration when setting up a company. To establish a captive, the requisite equity capital must be raised in compliance with the regulatory requirements of the local insurance supervisory authority. Even if the

capital commitment remains within the consolidated group of the parent group, larger incidences of claims might mean that it is not possible to generate the same returns as for possible investments in a group’s general business activities. The ongoing management of captives also involves higher operating costs as well as a time commitment, as a corporate group’s self-insurance is amortised only over a period of several years.

Traditional primary insurers and reinsurers will continue to play a significant role, as captives are often permitted as reinsurers only. This is why they still require a licensed primary insurer for the corresponding region in which the risk is based. Established primary insurers can typically provide the necessary fronting services more efficiently than a newly established captive can (cf. WTW, Farkas & Pozzo et al., 2021). While captives can be present an interesting option for industrial firms, the advantages and disadvantages described here must be carefully weighed.

There is no discernible global trend towards a stronger increase in new captives during the current hard reinsurance cycle. Although there has been a significant upturn in captives over the past 30 years (around 1,000 captives in 1980 and some 7,000 captives worldwide in 2022), the course has been quite stable since 2022 (cf. NAIC et al., 2023). Industrial and trading companies with international operations are dealing with the topic of an independent captive, or with protected cell captives, but this tends to be seen more for risks that are difficult to insure (in particular for long-tail risks such as product-liability risks, D&O risks, etc.). A further trend will likely emerge if the conditions of a hard reinsurance market remain in place for a longer period of time.

Generally speaking, it can be noted that the general demand for reinsurance will remain stable. As global trends, new product requirements and increased capital requirements continue to influence primary insurers, the resulting high demand for additional expertise and a solid capital base through broad diversification is holding demand for traditional reinsurance cover constant. Because they facilitate risk management, product design and pricing while helping manage volatility in results, traditional reinsurance companies are indispensable.

Discussion

- How do rising reinsurance prices affect direct customers? Is reinsurance more expensive than carrying certain risks entirely in equity or even establishing a separate captive?

Rising reinsurance prices also have an impact on primary insurers' pricing, as the costs are largely passed along to the direct customer on a one-to-one basis; by implication, premiums for primary insurance cover will be higher as well. The rise in premiums is a function of a number of factors, however (e.g., risk-adjusted premium increases, increases due to higher claims burdens, and general capacity in the market setting all play a role). For certain risks in particular, such as business-interruption losses and cyber risks, prices for primary insurance have seen a steep rise in recent years; thus, it may make sense for certain sectors of industry to analyse pricing in detail in to determine, for their own company, whether certain risks should remain entirely in the firm through equity participation. If claims situations are favourable, company-owned captives benefit from actuarial profits that can remain in the company.

- From what order of magnitude is a captive worthwhile, and might small firms join together (under what are known as 'protected cell captives' or 'group captives')? How can insider knowledge for a certain sector (e.g. the automotive industry) remain secret if several companies join forces within a group captive?

  Establishing a captive usually comes in for consideration beginning with a larger, six-figure premium volume. Nevertheless, it takes a certain amount of administrative effort to establish a captive, and additional investments are required to create the necessary expertise. In addition to the capital commitment for a captive through insurance-supervisory requirements and the regular operating costs involved, the requisite investment of time also plays a significant role. Launching a captive should be viewed as a long-term commitment to a holistic corporate and risk-management strategy. Within a group captive, the transparency of a company's own risks plays a major role. These are usually heterogeneous captives specific to the group of companies that has combined forces, created to jointly hedge a certain type of risk that is uniform for all parties involved, in an effort to circumvent the aforementioned insider knowledge and any competitive edge. Group captives are not suited for own risks such as property or cyber risks.

- Which locations are preferred for captives, particularly where German industrial firms are concerned?

  For the most part, captives are located in North America, followed by Bermuda, Europe and Asia. The captives preferred for German companies are predominantly located in Switzerland or Luxembourg. The approach still seen most frequently, however, is for a captive to be domiciled in the same location in which a company-owned insurer holds its business license. There are currently more than 70 locations for captives; these are divided into onshore or offshore registered offices. Captives are no longer established purely for reasons of tax-optimisation potentials in tax domiciles such as Bermuda, the Cayman Islands or

Guernsey, however. A clear trend towards ‘onshoring’ is discernible today, with an upturn in the captives created in Europe; this is the result of stricter compliance requirements.

References

- HZ Insurance, Werner Rüedi (2023), Captives können Deckungsstrukturen optimieren und Marktveränderungen abfedern, https://www.handelszeitung.ch/insurance/captives-konnen-deckungsstrukturen-optimieren-und-marktveranderungen-abfedern-592482, accessed on 24 June 2023.

- Versicherungswirtschaft Heute, Phillip Thomas (2022), Politik & Regulierung, Rückversicherer rechnen mit Marktverhärtung durch Inflation und Euro-Schwäche, https://versicherungswirtschaft-heute.de/politik-und-regulierung/2022-09-26/rueckversicherer-rechnen-mit-marktverhaertung-durch-inflation-und-euro-schwaeche/, accessed on 24 June 2023.

- WTW, Xandra Farkas & Vittorio Pozzo (2021), Captives: Finanzen und Risiken besser managen, https://www.handelszeitung.ch/insurance/captives-konnen-deckungsstrukturen-optimieren-und-marktveranderungen-abfedern-592482, accessed on 24 June 2023.

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16th Annual Meeting of the Sponsoring Group Reinsurance
Researchers' Corner, 16 June 2023

Who'd like a round of reinsurance?
No way – I always lose at that!

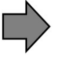
Robert Joniec, PhD

Status quo in research

Insight into actuarial game theory:

- *Negotiations via risk preference/aversion (actual vs. strategic)*
- *Negotiations via risk metrics and parameters*
- *Reinsurers anticipate the resulting demand and determine the price function*
- *and much more – cf. in particular Tim J. Boonen*

But tangible findings are lacking for the stakeholders and for the regulators



What aims are pursued in each case?
What does it mean to win/lose? (pay-off structures)
Which strategies are good/bad? (dominant/dominated)
…

Status quo in practice – Well, how was the last round?

Recap and sharing of individual experiences

- How many more rounds would have been needed to reach a better result? 'Improvement through another round' vs. 'no difference'
- Were cover amounts concluded (retroactively) after 1 January?
- Who will play the next renewal with the same strategy?

Observations from the helicopter

- The most recent renewal demonstrated that strategies can change and that exceptions such as *differential terms* and *cumulative placements* are more common. (Cf. Proceedings of the 15th Annual Meeting 2022)
- Were there signs of a 'waiting for more information' on reinsurers' part? ('Renewal congestion')
    - Strategic behaviour or retro vulnerability
    - Focus: *K-cession (side-car)*, *JP Morgan stop-loss (retro)*

Schematic progress
1/1 NatCat renewal (market view)
# of contracts
100%
75%
50%
25%
0%
1 Jan 22
1 November
1 January

Strategic approach

Strategy 101

1. Adopting fellow players' perspective
→ Who does what when?
2. Own behaviour as a function of other strategies
3. Maximising

Antoine-Augustin Cournot

Strategy 201

Cournot and Stackelberg
(Parallels to K-cession and JP Morgan s-l?)

Prisoner's dilemma
Winner's curse

Lawrence Ausubel

Strategie 301, Design 101

Auction vs. mechanism

Placement
Ausubel vs. Hard market

How do we reduce information asymmetries *by design*?

16th Annual Meeting of the Sponsoring Group Reinsurance

Researchers' Corner, 16 June 2023

Who'd like a round of reinsurance? No way – I always lose at that!

Robert Joniec, PhD / FCII

Dr. Robert Joniec has been a member of academic staff at the Cologne Research Centre for Reinsurance since 2015 and a member of the Strategic Advisory Team at Guy Carpenter since 2018.

This year's research project revisited some key points from previous years, but in a different way. The focus is on the linkage between theory and practice, making possible findings more tangible.

Learning more about the ways in which market participants in the reinsurance market interact based on the logic of a game requires a realisation that the main research that exists is in the mathematical/actuarial direction in which mathematicians deal with 'optimal reinsurance contracts'. In this connection, negotiations between cedants and reinsurers are viewed in different ways, but always as a strategic game (cf. Chen & Shen, 2019; Boonen, et al., 2021; Boonen & Ghossoub, 2023).

It can be assumed that the research offers insights into how players behave, or into which factors play an important role. Still, applying the findings to the everyday life of the marketplace can be challenging. In other words, despite their relevance for most market participants/stakeholders (players) and for market supervisors (regulators) alike, the findings are not necessarily tangible.

Hence, and as already noted in recent years, emphasis should be placed on market design, as tangible insights play an important role for market participants, and even non-ideal, 'real' situations come to the fore.

Questions that may be of interest include:

- What aims do the respective market participants seek to achieve?
- What does it mean to win or lose?

- As a link between these two questions: Which strategies are good/bad?

A pragmatic approach to the search for answers might be to ask the players: Well, how was the last round?

Questions that can provide researchers with initial clues might include:

- How many more rounds (of negotiation) would you have needed to reach a better result? Were improvements possible, or would another round have made no difference?

- Were cover amounts concluded retroactively after 1 January? And if so, was time the only component, or did other factors emerge with time?

- Which players will apply the same strategy when they play the next time? If so, why? And if not, why not, and what will the new strategy be?

Moving from individual players' (stakeholders) individual experiences to general observations about the market, there is evidence to suggest that strategies may well have shifted during the last renewal. Aspects that were once exceptions, such as differential terms and cumulative placements, were seen more frequently. These two factors, together with so-called 'renewal congestion', were discussed in greater detail in recent years' reports (Joniec, 2021; Joniec, 2022).

The temporal congestion of quotations or price indications can be mapped schematically by plotting the progress of renewal from a market perspective on the y axis and the timeline from the beginning of November to 1 January on the x axis. There were market statements that reinsurers had quoted around half of the programmes by early/mid-December, which was much later than in the previous year (with the curve shifting to the right).

The question arises as to whether the reason for this was waiting for information on the part of reinsurers. If so, was this because these programmes and structural options were weighed up against each other, or because these factors were a function of their retrocession and came to a halt? At a later point in time, it emerged specifically that greater levers were activated in the retrocession market – such as the 'K-cession' ('K-Zession') and what is essentially a stop-loss with JP Morgan as a retrocessionaire.

All of these observations would certainly facilitate a grasp of the dynamics involved in the game. So why is this even an issue to begin with? As the title of this report suggests, one tends to prefer to play games that one understands and in which one can influence whether one wins or loses. It is also clear that a game is not good if everyone is dissatisfied in the end.

What does this mean for individual players, and how can they strategically adapt their behaviour?

An important lesson is to understand one's opponents as thoroughly as possible. One seeks to understand who will do what, when and why. Based on this, opponents' behaviour is anticipated, and strategies are devised that will maximise one's own result.

At the same time, much can be learned from the competitive models of Cournot and Stackelberg. These models address the ways in which providers (reinsurers) compete with one another and offer different quantities (capacities) based on this competition. One difference between the two is that Stackelberg defines a kind of leader who makes the first move and is in a stronger position.

There are other relevant phenomena beyond this, such as the prisoner's dilemma and the winner's curse. The prisoner's dilemma describes situations in which cooperation by two players leads to a better overall solution if they proceed in coordination – which also means that individual (dominating) strategies are not pursued. The winner's curse involves situations in which winning requires too much from a player and inhibits playing behaviour as a result.

Consideration can also be given not just to players' (market participants') behaviour and strategies, but to the impacts of the rules of the game as well. Another motivation of this report is to cast auctions in a neutral light.

If it turned out that reinsurance auctions were not adequate, it is wrong to assume, based on this, that auctions per se are a poor fit for the reinsurance market. After all, the object is always about (allocation) mechanisms generally, not about specific characteristics, such as eBay, or the familiar reinsurance auctions.

Most notably, there is a mechanism with a strong resemblance to the cumulative hard-market placement mentioned above. The Ausubel mechanism is also designed for situations that could be influenced by the winner's curse, as well as for goods (capacity) combining characteristics of both common and private value (cf. Joniec, 2021 and Joniec, 2022). Hence, many of the foundational aspects of the reinsurance market can already be mapped in the Ausubel mechanism. This shows that, even though an auction is involved, important findings should not be overlooked.

A key question in theory and practice should always be to look into ways in which the asymmetric information – the winner's curse and the prisoner's dilemma – that lies at the core of the challenge in transferring risk to third parties, can be narrowed by design. This can benefit the market and society collectively. Hence, good rules of the game should always aim to keep asymmetries to a minimum and to motivate market participants to play uninhibitedly.

There was no discussion

References

- Boonen, T. J. & Ghossoub, M. (2023): Bowley vs. Pareto optima in reinsurance contracting. European Journal of Operational Research, 307(1), pp. 382-391.
- Boonen, T. J., Tan, K. S. & Zhuang, S. C. (2021): Optimal Reinsurance with Multiple Reinsurers: Competitive Pricing and Coalition Stability. Insurance: Mathematics and Economics, 101 (Part B), pp. 302-319.
- Chen, L. & Shen, Y. (2019): Stochastic Stackelberg differential reinsurance games under time-inconsistent mean-variance framework. Insurance: Mathematics and Economics, Volume 88, pp. 120-137.
- Joniec, R. (2021): Allokationsmechanismus RV-Markt – Die Schattenseite des Traditionellen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2021.
- Joniec, R. (2022): Klassische RV-Platzierungen und -Auktionen – Wir wissen, dass wir nichts wissen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2022

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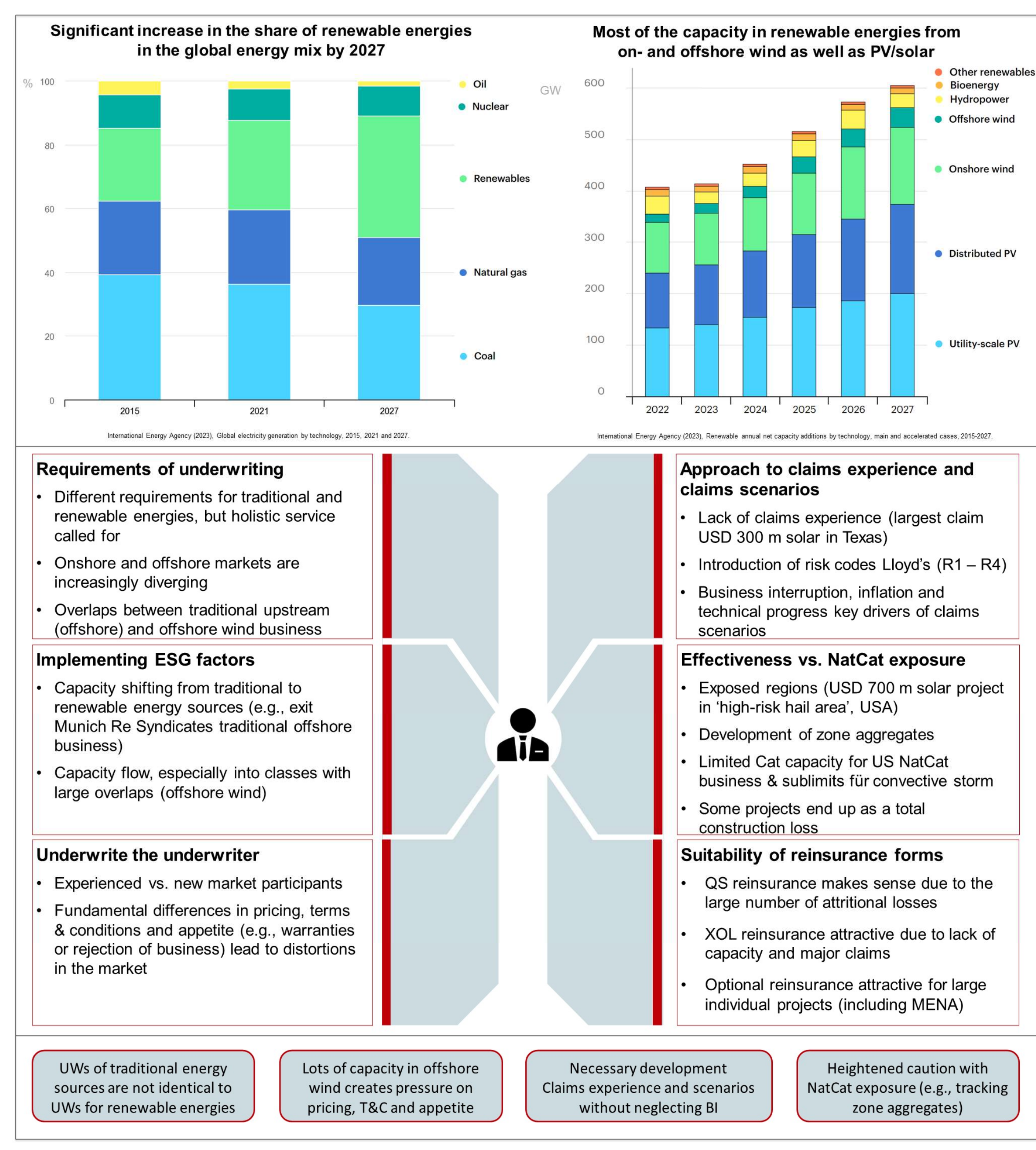
Researchers' Corner, 16 June 2023

ESG – Challenges in the reinsurance of renewable energies

Erik Winkler, M.Sc.



16th Annual Meeting of the Sponsoring Group Reinsurance

Researchers' Corner, 16 June 2023

ESG – Challenges in the reinsurance of renewable energies

Erik Winkler, M.Sc.

Erik Winkler works full-time at Liberty Mutual Re in the London Market Risk Underwriting of Marine & Energy Risks. In addition, he is a member of academic staff at the Cologne Research Centre for Reinsurance at the Cologne University of Applied Sciences, where his research concerns the influence of ESG factors on the reinsurance of marine and energy risks. Above and beyond his master's thesis, within the Researchers' Corner framework, Mr Winkler conducted an in-depth investigation of the challenges involved in reinsuring renewable energies.

In its Renewables 2022 Report, the International Energy Agency (IEA) projects that the share of renewable energies in the global energy mix will increase from 22.8% in 2015 to 38.1% in 2027 (cf. IEA, 2023). This trend goes hand-in-hand with increasing construction of plants for the generation of renewable energies, leading to increased demand for (re)insurance. Comparable to the development of traditional energy sources, the hedging of current risks is a key element in the further development of renewable energies (cf. Sharp, 2009, p. 1 f.). According to projections by the IEA, by 2027 most of the energy from renewable sources will be generated using photovoltaics or solar as well as onshore and offshore wind.

What follows is an outline of six of the challenges involved in reinsuring renewable energies; these challenges have emerged specifically from market research and from discussions with customers and brokers.

The first challenge involves the requirements placed on underwriters. Like the traditional extraction of energy from its sources, the production of renewable energies involves complex technical processes that must be analysed in an effort to understand and assess the risks they involve. In the traditional sector, the (re)insurance industry has managed to build expertise over time. Typically, however, this expertise cannot be transferred over to the extraction of renewable energies.

Consequently, an underwriter in the traditional sector will not become an underwriter of renewable energies in the short term. Nevertheless, policyholders and cedants usually insist on a holistic service, as their programmes entail the risks associated with both traditional and renewable forms of energy. In addition to expertise in the traditional field, (re)insurance firms must amass the necessary expertise in assessing the risks of renewable energies and compile this information for the customer. The emphasis has been on the differences between traditional and renewable energy sources, but it warrants pointing out that similarities exist as well, particularly between traditional offshore business and the offshore business in wind (cf. Casey, 2023).

The second challenge is the fact that (re)insurers are increasingly incorporating ESG factors into their underwriting. The result of this is that more capacity tends to flow from the hedging of traditional energies and into the hedging of renewable energies. One example of this is the exit by Munich Re Syndicates from the traditional offshore business and the future aim of pioneering the development of (re)insurance solutions in the renewables sector. Capacity will flow specifically into areas that resemble the hedging of traditional business. As already pointed out, this applies to the offshore wind business (cf. Sketcher, 2023 p. 44 and Casey, 2023).

The third challenge is expressed in the fact that reinsurance underwriters must assess cedants regarding their underwriting policy. On the one hand, the market features cedants that have already had experience with claims and terms & conditions in the renewable-energies field. On the other hand, there are also cedants that are currently battling for market share through pricing and terms & conditions and still have no claims experience. The increased flow of capacity places great pressure on prices, terms & conditions and on cedants' appetite for risk, particularly in the offshore wind business. For reinsurance underwriters, this involves familiarising themselves with cedants in the best possible way, in an effort to develop a sense for the underwriting policy and their relationships with the respective customers.

The fourth challenge consists of the current lack of claims experience and a realistic consideration of possible claims scenarios. Hence, a USD 300 million claim for hail damage to a solar farm in the USA is the largest known claim in the renewable-energy field (cf. Song, Kyoung-son, 2022). Apart from this, claims are confined to attritional losses at the moment. When compared to claims in the traditional onshore business (approx. USD 1 billion with some regularity), claims in the renewable-energy sector would appear to be minor. In future, claims scenarios involving not only physical damage but damage due to business interruption should not be disregarded. Particularly as a result of competition in the production of the most powerful and efficient wind turbines possible, there is doubt as to whether the infrastructure can develop in a similar fashion. If not, this could result in challenges not only in the construction of wind farms, but also in their repair in the event of damage. For example, the number of ships that can perform repairs is currently already limited

and are subject to further limitations through local regulations such as the Jones Act in the USA. There are also supply-chain issues with impacts on a possible business-interruption scenario (Splawn, 2023, p. 20). Among other things, the introduction of risk codes R1 through R4 to cover risks in renewables promises to improve claims recording and hence more reliable conclusions about realistic claims scenarios. It is assumed that it will be another five years before underwriters will have incorporated this claims experience as an integral part of their assessment and pricing of risks.

The fifth challenge consists of renewable energies' NatCat exposure. While it must be pointed out that a large proportion of offshore wind energy is generated in the North Sea, other forms of renewable energy are being built in more regions that are certainly more exposed. Accordingly, based on the largest claim observed to date in the renewable-energies class, it should be pointed out, for example, that solar projects are being constructed in 'high-risk hail areas' in the USA. The objective pursued is to make production as efficient as possible within one's own territory. However, it must be assumed that this project will lead to a total loss in the foreseeable future. Consequently, underwriters are already responding by issuing a strong restriction on the issued limit and setting a high price for this limit. It can also be observed that the aggregates are detected in different (NatCat-exposed) zones and, where appropriate, restricted.

The sixth challenge consists in the suitability of the reinsurance form. At the moment, classic excess-of-loss reinsurance seems still to lack specificity around the size of the claims and the total volume of the projects. Renewables risks are currently often ceded in a whole account and receive far less attention in valuation than in the case of classic marine & energy risks. This could change in future, however, due to the increasing volumes of individual projects and the potential for increase in the size of the claims. The classic quota share, on the other hand, is already suitable as a reinsurance solution for ceding the high number of attritional losses. A combination of quota share, and excess-of-loss reinsurance could grow more attractive as the volumes and magnitudes of claims increase. Optional reinsurance, on the other hand, already works for large individual risks, such as large-scale solar projects in the Middle East. Detailed information about exposure is already available there, permitting the underwriter to perform a corresponding risk assessment, although there can be no reference to in-depth claims experience.

It remains to be pointed out that an underwriter for traditional risks is not automatically an underwriter for risks involving renewables. In future, it will be important for (re)insurance firms and their underwriters to accumulate expertise in the field of renewable energies and to combine this with existing expertise from traditional business. Particularly in business with offshore wind, it can be assumed that there will be pronounced pressure on prices, terms & conditions and on the appetite for risk. In future, it will be indispensable to assess possible claims scenarios based on a history of claims experience. In addition to claims for physical damage, claims for

business interruption in particular will play an overriding role. Furthermore, it will be important to monitor NatCat exposure, reducing aggregates in certain regions as indicated.

Discussion

- Could the dismantling of a wind farm because it interferes with the natural habitat of moose in Norway constitute an insurance claim?

  In principle, this depends on the terms & conditions of the underlying contracts. However, it should be noted that if the wind farm has been officially approved, a liability claim can be lodged against the licensing authority. Hence, the initial assumption is that this scenario will materialise into a (re)insurance claim.

- To what extent does comparability between traditional offshore and renewable offshore wind business transfer over to an entire portfolio of the respective risks?

  It remains to be pointed out that comparability always exists between the two classes and materialises in an increased flow of capacity into offshore wind business. Where individual risks are concerned, it becomes clear that, given their use in shallow and calm waters with a shallow depth, mobile offshore units such as jack-up rigs and barges have a certain similarity to wind turbines firmly fixed in the ground near the coast. Considering the form of the offshore floating wind, in which wind turbines in deep water are held in place using ropes and anchors, some parallels can be drawn here as well. But if oil and gas production using deep-sea platform complexes is included, there is no comparison to the offshore wind business.

- To what degree do rising energy prices affect BI limits?

  The greatest benefit is transparency around how the supply and demand sides interact, but this is only the case with the heavily standardised products, such as industry loss warranties. It was pointed out, however, that there are currently no convincing arguments for the use of auctions for the vast majority of classic reinsurance contracts.

  With a view to the discussion, it is clear that while such issues are highly relevant, they are not yet reflected in research. This underscores the fact that that a large share of reinsurance transactions in the years to come will still be conducted within the confines of the traditional reinsurance process, with no certainty whatsoever about interactions between rules and practices and the objectives of the reinsurance market. The same applies to the emerging alternatives.

References

- Casey, Samuel (2023): Renewables conditions diverge between onshore and offshore through 2023, Renewable energy insurance conditions are different for onshore and offshore risks in 2023 (insuranceinsider.com), accessed on 3 July 2023.

- International Energy Agency (2023): Global electricity generation by technology, 2015, 2021 and 2027, https://www.iea.org/data-and-statistics/charts/global-electricity-generation-by-technology-2015-2021-and-2027, accessed on 3 July 2023.

- Sharp, David (2009): Upstream and Offshore Energy Insurance, 2nd edition, Livingston Witherbys Insurance.

- Sketcher, Alice (2023): Floating Offshore Wind: commercially viable, in WillisTowersWatson (2023): Renewables Energy Market Update, https://www.wtwco.com/-/media/wtw/insights/2023/01/renewable-energy-market-review-2023.pdf?modified=20230117172913, accessed on 3 July 2023.

- Song, Kyoung-son (2022): Correction needed as US renewables face heavy losses: GCube, Correction needed as US renewables face heavy losses: GCube (insuranceinsider.com), accessed on 3 July 2023.

- Splawn, Magaret (2023): Risk management & ESG: the key issues for the renewable energy industry, in WillisTowersWatson (2023): Renewables Energy Market Update, https://www.wtwco.com/-/media/wtw/insights/2023/01/renewable-energy-market-review-2023.pdf?modified=20230117172913, accessed on 3 July 2023.

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16th Annual Meeting of the Sponsoring Group Reinsurance
Researchers' Corner, 16 June 2023

Disaster insurance without premium payment – The concept of contingent liability in Switzerland

Fabian Lassen, M.Sc. / FCII

Introduction

- Compulsory insurance is currently being discussed in DE and CH
- (Natural) disasters are rare and have a high potential for loss
- Gaps in cover due to lack of insurance solutions or lack of awareness (pandemics, cyber, etc.)

Familiar solutions:
- § Compulsory insurance
- Insurance pool
- State guarantees

→ Premium payment to primary insurer

Source: OECD Financial Management of Earthquake Risk 2018

Natural-disaster insurance in Switzerland

- **Compulsory insurance for buildings**
- **Risk carriers:** public monopoly insurers (Kantonale Gebäudeversicherer, KGV); exception GUSTAVO cantons with free choice of primary insurer
- **Insured hazards:** High water, flooding, storm, hail, avalanches, snow pressure, rockfall, stone chip and landslide

■ Kantonale Gebäudeversicherungen (KGV)
■ GUSTAVO cantons (private insurers)

Earthquake insurance not obligatory; there are other solutions instead:
- Building insurance, Canton of Zurich earthquake insurance with a limit of CHF 1 bn
- Additional 17 cantonal building insurers (KGVs): 'Schweizerischer Pool für Erdbebendeckung' with limit of CHF 2 bn, as voluntary service of the KGVs
- Private insurers offer earthquake cover

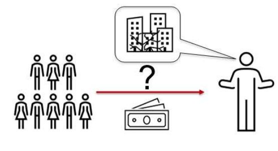
Around 15% of buildings insured against earthquakes

Source: Federal Office for the Environment – Versicherungsschutz bei Erdbeben (2022)

Method of operation of contingent liability

Risk transfer in exchange for payment

Contingent liability



Summary of the proposed cover
- Buildings up to CHF 25 m subject to compuls. insur., includes approx. 99.5% of all buildings
- Premium rate 0.7% of insured sum, deductible 5% of insured sum, at least CHF 25,000
- Maximum sum CHF 20 bn
- Exclusions: Contents, business interruption, clean-up
- Definition of an event: Earthquakes of intensity 6 or higher on the EMS-98 scale

- Compulsory insurance for earthquakes as a 'contingent liability' (insurance without ongoing premium payment to primary insurers)
- Only in event of an earthquake of relevant magnitude are all building owners asked to pay a premium to finance the loss

Source: Arbeitsgruppe Eventualverpflichtung Erdbeben (2022)

Advantage

- High market penetration
- Losses financed by all building owners, not the state
- No reserves constituted or invested on the capital market, low costs
- No generations of subsidising as severe earthquakes occur very rarely

Disadvantage

- Because losses are financed retroactively, funds are collected only when needed in the short term
- Who collects the funds is unclear
- No differentiation according to individual risk

Conclusion

- Contingent liability can quickly close the gap in earthquake cover at no immediate cost to policyholders
- Implementation still uncertain; already many attempts to introduce compulsory insurance for earthquakes
- New business opportunity for private primary insurers: Cover for contents, events with a return period > 500 years, business interruption, clean-up costs, hedging the policyholder's deductible
- An idea for cover of previously unknown dangers of serious proportions? Further areas of application?

16th Annual Meeting of the Sponsoring Group Reinsurance

Researchers' Corner, 16 June 2023

Disaster insurance without premium payment – The concept of contingent liability in Switzerland

Fabian Lassen, M.Sc. / FCII

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No later than with the heavy rainfalls of 2021, discussions in Germany have resumed around the introduction of compulsory insurance for natural hazards. Natural hazards exhibit a high potential for loss, and insurance is a building block with which to bolster resilience. In practice, there are already a host of functioning solution concepts to provide cover for natural hazards, including insurance pools and state guarantees. All of the concepts, however, are predicated on payment of an ongoing insurance premium.

Compulsory insurance for natural hazards already exists in Switzerland. With the exception of the Canton of Zurich, however, earthquake insurance is not covered under this compulsory insurance (cf. Swiss Federal Council 2022). Although severe earthquakes are very infrequent in Switzerland, they are a natural hazard with great potential for serious damage. Some 15 percent of buildings in Switzerland are insured against earthquakes (cf. AG Eventualverpflichtung Erdbeben 2022, p. 10).

To date, the effort to integrate earthquakes into compulsory insurance has not succeeded. Under a new initiative, there would be no ongoing payment of premiums for potential compulsory insurance, and the hazard would be treated as a contingent liability instead (cf. Swiss Federal Council 2022). In the event of an earthquake, all building owners would pay a portion of the damage cover. This represents a departure from classic insurance with ongoing premium payments. The mode of operation of contingent liability, together with its advantages and disadvantages, will be described below.

In contrast to cases of protecting against other natural hazards, insurance coverage in the event of earthquakes is incomplete. There is neither a mandatory requirement nor an insurance solution in place for all of Switzerland. Consequently, only about 15 percent of buildings are insured against earthquake damage (cf. Christine Wanner 2022). The following insurance solutions exist in Switzerland for buildings (and are described here in greatly abbreviated form):

- The Canton of Zurich requires building insurance for the risk of earthquakes (cf. Canton of Zurich 1 January 1976, IV. Versicherte Schäden Section 21), with insurance cover is capped at CHF 1.0 bn (GVZ Gebäudeversicherung Kanton Zürich 2021)
- 17 cantonal building insurers have created the Swiss pool for earthquake cover, providing building owners with CHF 2.0 bn in insurance cover at no additional premium, although this is a voluntary service – there is no entitlement to compensation. (Cf. Vereinigung Kantonaler Gebäudeversicherungen VKG 2023)
- Private insurers offer earthquake insurance for buildings, among other things (cf. AG Eventualverpflichtung Erdbeben 2022, p. 10 f.)

Payment of an insurance premium is one of the prerequisites for conclusion of an insurance contract. An insurance company will only assume future insurance claims once it has received premiums. The concept of contingent liability represents a departure from this principle. There, premiums are collected only after the event (cf. Christine Wanner 2022).

A variety of options are currently being analysed and discussed. As a result, changes may still be made to the final design. Summary of key elements of the proposal (cf. AG Eventualverpflichtung Erdbeben 2022, p. 15 ff.):

- Covered risks: Buildings up to a value of CHF 25 m, no federal buildings
- Premium rate: 0.7% of the insured sum of the building
- Income: approx. CHF 20 bn
- Deductible: 5% of the insured sum, at least CHF 25,000
- Excluded: Contents, business interruption, clean-up costs
- Definition of an event: Earthquake exhibiting an intensity of at least 6.0 according to of the European macroseismic scale EMS-98

The insurance obligation is to be limited to buildings with a value of up to CHF 25 m. This achieves both a high proportion of total buildings, around 99.5 percent, while, on the other hand, large building complexes and federal buildings are not included in order to accelerate the assessment and payment of claims in the event of an earthquake. Buildings with a higher insurance value can be protected through private earthquake insurance (cf. Schöchli 2022).

Contingent liability will be calibrated in such a way to protect against damage due to an earthquake of a severity level witnessed only every 500 years. The 500-year recurrence period serves as a standard for earthquake assessment in the construction sector (cf. AG Eventualverpflichtung Erdbeben 2022, p. 16 f.). Contingent liability would apply even in the event of smaller earthquakes with a recurrence period of 50 to 150 years (corresponding to an earthquake of a magnitude of around 6.0). By way of comparison: In Switzerland, earthquakes with a magnitude of 5.0 occur roughly every eight to 15 years (cf. Schöchli 2022).

The concept of contingent liability has some advantages. If contingent liability were used, 99.5 percent of all buildings in Switzerland would be insured against earthquakes in one fell swoop. Financing of the damage would be provided by all building owners, not through the state budget (cf. AG Eventualverpflichtung Erdbeben 2022, p. 28). There would be no subsidy spanning several generations, either, as severe earthquakes are rare, and a benefit obligation would only arise in the event of damage (see Vereinigung Kantonaler Gebäudeversicherungen VKG 2021, p. 2).

On the other hand, there are also disadvantages. From the point of view of the Swiss Insurance Association (SVV), the concept can be considered as more of a retroactive tax than as insurance (cf. SVV 2023). In addition, only damage to buildings is covered. Building contents and business interruptions remain excluded from cover. Moreover, funding is called up only after an earthquake. This would occur at a time moment when many of those who have been affected are in need of short-term financial support. Under classic insurance, the damage would be pre-financed through the insurance premium. Apart from this, contingent liability does not consider individual risk. As a result, it is conceivable that, with time, less vulnerable regions would subsidize more vulnerable regions.

Some cantons have limited funds available for earthquake relief. Building owners have no contractual claim to this, however. Private insurers also offer extensive earthquake cover. Nevertheless, financial hedging against earthquakes by insurance companies in Switzerland is very low.

The concept of contingent liability presented here has the potential to close the gap in cover in the event of damage due to earthquakes. Building owners would incur

costs only in the case of an insured event. A gap in cover would still remain, however, with regard to lost building/household contents and financial losses incurred.

Discussion

- BaFin has already announced that companies with a low risk profile do not have an obligation to identify scenarios in the ORSA. Have specifications been defined to indicate when this applies to these companies?

  According to BaFin, companies with a weak risk profile (future LRPU) are exempt from implementing (long-term) climate-change scenarios in the ORSA and from justifications in case of insignificant risk of climate change. If climate-change risks are significant for companies with a weak risk profile (LRPU), the ORSA report must at least indicate the extent to which they are exposed to climate-change risks, and what climate-change-based medium-term effects they expect for their future trend in claims, their capital needs and their investments, and how they intend to respond to these. Unfortunately, no limits are known in this regard. Consequently, during the first year, LRPU companies must argue effectively, and the feedback obtained from supervisory authorities will be relevant to the effort to extrapolate the future course of action.

- In the context of natural-hazard insurance, compulsory insurance is under consideration; in the long term, this would more than double insurance density in this line (parallel to an increase in the numbers of claims due to climate change). Shouldn't insurers then take care to insure fewer properties in future than currently permitted in the zones of the German system of flood-risk classification [ZÜRS]?

  Thus far, of course, it has been difficult to predict whether state specifications might be instituted in this regard in future. Where appropriate, stronger conditions as to what may and may not be insured would have to be imposed for constructional requirements in underwriting (with a corresponding impact for reinsurance as well). It would also be conceivable for the insurer to be able to agree in the short term to a security obligation that is independent of state specifications.

<u>References</u>

- BaFin (2021): Hinweise zum Solvency-II-Berichtswesen für Erst- und Rückversicherungsunternehmen sowie Versicherungsgruppen,

https://www.bafin.de/SharedDocs/Downloads/DE/Merkblatt/VA/dl_Hinweissschreiben_Berichtspflichten_SolvencyII.html, accessed on 8 July 2022.

- DAV (2021): Ergebnisbericht des Ausschusses Schadenversicherung: Klimawandel − aktuarielle Implikationen, https://aktuar.de/unsere-themen/fachgrundsaetze-oeffentlich/Ergebnisbericht%20AG%20Klimawandel.pdf, accessed on 8 July 2022.

- EIOPA (2021a): Opinion on the supervision of the use of climate change risk scenarios in ORSA, https://www.eiopa.europa.eu/document-library/opinion/opinion-supervision-of-use-of-climate-change-risk-scenarios-orsa, accessed on 8 July 2022.

- GDV (2021a): Positionspapier zur Zukunft der Versicherung gegen Naturgefahrenereignisse in Deutschland, https://www.gdv.de/resource/blob/71796/6f0fb2efaf19015693e6051a36bb1c0d/pdf-data.pdf, accessed on 8 July 2022.

- GDV (2021b): Ansätze zur Umsetzung der aufsichtlichen Anforderungen an Klimawandelszenarien im ORSA, https://gdv-portal.de/en/group/portal/detailseite?redirectURL=detailseite_termin.xhtml&infoId=384117, accessed on 8 July 2022.

- Network for Greening the Financial System (2021): Climate-related litigation: raising awareness about a growing source of risk, https://www.ngfs.net/en/climate-related-litigations-raising-awareness-about-growing-source-risk, accessed on 8 July 2022.

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The impact of the US-China trade war on the Chinese motor-insurance market

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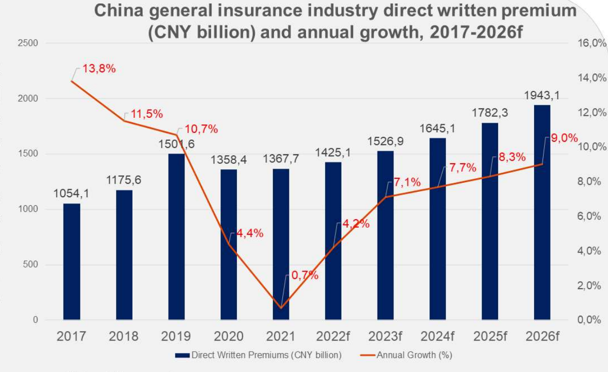
Introduction

The US-China trade war has had a significant impact on all areas of business in China, including the motor-insurance market. The Chinese auto industry and motor-insurance market are closely linked. Motor-insurance premiums account for nearly 57% of total non-life premiums. Consequently, the Chinese auto industry has been severely impacted by these ongoing disputes. The result has been a significant decline in car imports and car sales, resulting in a substantial decline in Insurance premiums.



Note: f: forecast
Source: GlobalData Insurance Intelligence Center

The short-term effects of the trade war since 2017

Higher manufacturing costs and higher repairs costs – squeezing the profitability of auto insurers.

In 2022, a low premium growth rate of 0.7% due to a combination of multiple factors including lockdowns and low auto sales.

Decline in overall Chinese economic growth, resulting in people deciding to take the risk of driving while not insured.

Source: https://www.swissre.com/institute/research/topics-and-risk-dialogues/china/expertise-publication-china-motor-insurance-reform-on-the-way.html
https://www.nber.org/digest/202204/how-us-china-trade-war-affected-rest-world

The long-term impact

Further diversification of the business	Auto sales will be slow to recover, forcing motor insurers to explore other lines of business in casualty, accident and health, resulting in continued diversification of the market.
Introduction of new products and services	Insurers are facing fierce competition since the reform of motor insurance regulations. Providers will need to offer innovative products and new customer experiences to stay competitive.
Data-driven pricing	Artificial Intelligence can be used for better pricing. Real-time data and monitoring of vehicles will provide competitive pricing based on driver performance, not just vehicle type, condition, age, etc.
Technology-enabled risk prevention	With more and more electric and hybrid cars on the road, China will be able to develop smarter systems to prevent motor-insurance claims and fight cases of fraud.

Summary and outlook

The ongoing US-China trade war has caused a lot of uncertainty and disruption, especially for the Chinese motor-insurance market.

Short-term effects

- Challenging environment for insurers' profitability.
- Slower growth in the next couple of years.
- Changing customer behaviours due to economic outlook.

Long-term impact

- Insurers will innovate and develop other areas of their portfolios.
- Customers can enjoy new products and services introduced to the market.
- The motor-insurance market will embrace data and technology for more efficiency.

16th Annual Meeting of the Sponsoring Group Reinsurance

Researchers' Corner, 16 June 2023

The impact of the US-China trade war on the Chinese motor-insurance market

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I am Lihong Wang, a part-time senior research associate at the Research Centre for Reinsurance, Cologne University of Applied Sciences, and a full-time employee at Lloyd's broker 1065 International Risk Solution (IRS) Group in London. This year, I am very proud to become a member of Lloyd's, in the Non-Underwriting Working Member (NUWM) Category.

US-China trade tensions, which began worsening in early 2017, have had far-reaching consequences far-reaching consequences. On 6 July 2018, the US imposed tariffs on $34 billion worth of Chinese goods, prompting retaliatory measures from China. This ongoing trade dispute has created economic tension between the world's two largest economies, leading to the implementation of tariffs, trade restrictions and geopolitical uncertainties.

The impact of these actions has been felt across various sectors, causing disruptions in global supply chains, increased manufacturing costs and fluctuations in market demand. Businesses operating in this complex trade environment now face significant uncertainties. The automotive industry, including cars, car components, steel, and aluminium, has been particularly affected.

Furthermore, the trade war has had a notable influence on motor-insurance premiums, which account for approximately 57% of non-life insurance premiums in China.

The graph shows annual growth rates and gross written premiums for Chinese non-life insurance from 2017 to 2021. We observe a declining trend during this period, with growth rates dropping from 14% to 12%, 11%, 4%, and reaching a low of 0.7%

in 2021. This decline can be attributed to various factors, including the US-China trade war and economic challenges.

However, there is a positive outlook for the Chinese non-life insurance market from 2023 to 2026, with a projected average growth rate of 5%. This upward trend indicates a recovery and potential opportunities for insurers to regain momentum.

The US-China trade war has negatively affected the Chinese motor-insurance market in the short term. Here are the key impacts:

1. Increased manufacturing and repair costs: Tariffs and trade barriers have raised the prices of imported auto parts from the US, squeezing the profitability of auto insurers. Moreover, repair costs have escalated due to expensive imported parts, further impacting insurer profitability.

2. Low premium growth rate: The trade war, along with lockdowns and reduced auto sales, led to a sluggish rate of premium growth of 0.7% in 2021. Uncertainty and weakened consumer confidence have dampened car imports and sales, resulting in weaker demand for motor insurance.

3. Decline in Chinese economic growth: Challenging economic conditions have prompted some individuals to take the risk of driving without insurance to save money. This trend poses risks for both uninsured drivers and the motor-insurance market.

In the long term, the US-China trade war is expected to have a transformative impact on the Chinese motor-insurance market across four key aspects:

1. Further diversification in the motor-insurance market: The challenges of recovery in auto sales will drive motor insurers to expand beyond traditional motor insurance. This diversification will involve exploring lines of business-like casualty, accident and health insurance. This broadens revenue streams, mitigates the impact of slow auto sales, and offers consumers a wider range of insurance options.

2. Introduction of new products and services: Market competition in motor insurance and regulatory reforms will push insurers to innovate and offer new products and services. Tailored solutions, flexible cover options and enhanced customer experiences will become essential. Value-added services such as 24/7 roadside assistance and personalised risk-management advice will be included to attract customers and contribute to market growth.

3. Data-driven pricing: Technological advancements and access to big data will shape the future of motor insurance in China. Insurers will increasingly rely on data-fed pricing models to assess risks accurately and set premiums accordingly. Real-time data and vehicle monitoring will aid in identifying high-risk behaviours, enabling proactive interventions for improved risk prevention and reduced claims.

4. Last but not least, technology-enabled risk prevention: China's adoption of electric and hybrid cars presents an opportunity to develop smarter systems for preventing insurance claims and combating fraud. Integration of technologies such as telematics, artificial intelligence, and IoT will allow insurers to monitor and analyse driver behaviour, vehicle condition and road conditions in real-time. This reduces accidents, lowers costs for insurers, and enhances policyholder safety.

These changes will shape a dynamic and competitive motor-insurance landscape in China, benefiting insurers and consumers alike.

In sum, the short-term impact of the US-China trade war on the Chinese motor-insurance market has been significant, leading to higher costs, low premium growth, and an economic decline. However, there are opportunities for growth and stability.

Looking ahead, the motor-insurance market shows promising prospects for long-term growth and stability. Key takeaways include market diversification, introduction of new products and services and the importance of data-driven pricing and technology-enabled risk prevention.

Despite the challenges of the trade war, the Chinese motor-insurance market holds growth potential. Insurers are advised to embrace innovation, adapt to market conditions, and prioritise customer needs. By being proactive and customer-centric, insurers can navigate challenges, seize opportunities and contribute to the long-term growth and stability of the Chinese motor-insurance market.

Discussion

- What was the impact of COVID and what was the impact of the US-China trade war in the decline of Chinese insurance premiums? Can you tell which was more effective?

  Due to insufficient data and studies, the impact of COVID-19 and the US-China trade war on the decline of Chinese insurance premiums cannot be accurately quantified at this time. However, available publications suggest that in 2020, the trade war had a less severe impact on the decline of insurance-premium growth compared to COVID-19.

- Has international companies' appetite for doing business in China changed?

  Yes, the US-China trade has made the neighbouring companies more attractive candidates for relocating manufacturing sites. Western companies are frightened by selective enforcement of draconian data and spying laws. However, China is

also a huge market for potential growth. In past years, international companies have grown more aware of the risks and are able to make informed choices.

- Regarding electric cars made in China, are there more changes?

  This is an interesting development as China provided subsidies for consumers to buy electric or hybrid cars, and insurers provide discounts for insuring e-cars. Chinese roads are becoming smarter and more connected. The risk landscape for motor insurers has changed drastically. By 2023, 30% of cars in China will be electric cars! As Reuters put it: 'China's auto market, the world's largest, is accelerating toward an electric future – leaving established global brands stuck in the slow lane.'

References

- Liang, G., & Ding, H. (2020): The China-US Trade War (1st ed.). Routledge. https://doi.org/10.4324/9780429345241

- Lau, L. J. (2020): The Impacts of the Trade War and the COVID-19 Epidemic on China-U.S. Economic Relations. China Review, 20(4), 1–38. https://www.jstor.org/stable/26959852.

- Reuters (2023): China's electric car drive, led by BYD, leaves global brands behind, https://www.reuters.com/business/autos-transportation/chinas-electric-car-drive-led-by-byd-leaves-global-brands-behind-2023-04-17/ , May 2023.

- South China Morning Post (2023): Andrew Mullen, Explainer | US-China trade war timeline: key dates and events since July 2018, https://www.scmp.com/economy/china-economy/article/3146489/us-china-trade-war-timeline-key-dates-and-events-july-2018, April 2023.

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Directory of publications of the Cologne Research Centre for Reinsurance

Current as at: September 2023

2023

Materne, Stefan (Hrsg.): Jahresbericht 2022 der Kölner Forschungsstelle Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 1/2023.

Materne, Stefan (Hrsg.): Annual Report 2022 of the Cologne Research Centre for Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 2/2023.

Lassen, Fabian: ESG-Kriterien im Underwriting von Rückversicherern in: Zeitschrift für Versicherungswesen (ZfV), 09/2023, S. 268-270.[1]

Cremer, Frank / Materne, Stefan: Das Cyber-Kumulsrisiko, in: Institut für Versicherungswesen (Hrsg.): Risiko im Wandel als Herausforderung für die Versicherungswirtschaft, Springer Verlag (2023).

Cremer, Frank / Fortmann, Michael / Sheehan, Barry / Mullins, Martin: Cyber-Versicherung – Ein Einblick in die Ausschlüsse des deutschen Cyber-Marktes, in: Bundesamt für Sicherheit in der Informationstechnik – BSI (Hrsg.): Digital sicher in eine nachhaltige Zukunft, Tagungsband zum 19. Deutschen IT-Sicherheitskongress, SecuMedia Verlag (2023).

Cremer, Frank: Perspektiven und Postulate vom Kölner Rückversicherungs-Symposium 2023, in: Versicherungswirtschaft (VW), Juni 2023, S. 108–111.

Hartramph, Evelyn: Kein Ende des harten Marktes in Sicht, in: Zeitschrift für Versicherungswesen (ZfV), 11/2023, S. 320-321.

Materne, Stefan (Hrsg.): Proceedings des Researchers‘ Corner zur 16. Jahrestagung des Förderkreises Rückversicherung 2023. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 3/2023.

Materne, Stefan (Hrsg.): Proceedings of the Researchers’ Corner for the 16th Annual Meeting of the Sponsoring Group Reinsurance 2023. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 4/2023.

Cremer, Frank: Cyber-Kriegsführung aus Perspektive der (Rück-)Versicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 5/2023.

Dirks, Jörg: Captives: Steigende Bedeutung durch Marktverhärtung in der Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 6/2023.

[1] Already published in 2022 as "Lassen, Fabian: ESG-Kriterien im Underwriting von Rückversicherern. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2022".

Joniec, Robert: Wert hat Lust auf `ne Runde Rückversicherung? Nee, da verliere ich immer! Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2023.

Winkler, Erik: ESG – Herausforderungen bei der Rückversicherung von erneuerbaren Energien. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 8/2023.

Lassen, Fabian: Katastrophenversicherung ohne Prämienzahlung – Das Konzept der Eventualverpflichtung in der Schweiz. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2023.

Wang, Lihong: The impact of the US-China trade war on the Chinese motor insurance market. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 10/2023.

Cremer, Frank: Cyber warfare from the perspective of (re)insurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 11/2023.

Dirks, Jörg: Captives: Increasing importance due to market hardening in reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 12/2023.

Joniec, Robert: Who wants to play a round of reinsurance? Nah, I always lose at that! Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 13/2023.

Winkler, Erik: ESG – Challenges in reinsuring renewable energy. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 14/2023. ('in the process of publication')

Lassen, Fabian: Catastrophe insurance without premium payment – The concept of contigent liability in Switzerland. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 15/2023.

Wang, Lihong: Die Auswirkungen des Handelskriegs zwischen den USA und China auf den chinesischen Kfz-Versicherungsmarkt. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 16/2023.

Cremer, Frank / Fortmann, Michael: Analyse von Ausschlüssen in der Cyber-Versicherung, IT-Sicherheit 4/2023, S. 50-52.

Winkler, Erik: The impact of the environmental, social, and governance (ESG) principles on the underwriting process in the Marine & Energy reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 17/2023.

Associate members

Funke, Benedikt / Kunze, Lars: Optimale Rückversicherung im Kontext der wert- und riskoorientierten Steuerung, Der Aktuar, 1/2023, S. 9-16.

Günther, Dirk-Carsten: Der Regress des Sachversicherers, Verlag Versicherungswirtschaft, 553 Seiten, 7. Auflage, Karlsruhe 2023.

Günther, Dirk-Carsten: „Die Rechtsprechung des Reichsgerichts zum Versicherungsrecht – alte Urteile und neue Erkenntnisse" in: Festschrift für Peter Schimikowski „Versicherungsrecht – Vergangenheit und Zukunft" Seite 113-153, München 2023.

Günther, Dirk-Carsten: Klimaerwärmung und Elementarschadenversicherung“ in: „Risiko im Wandel – Herausforderung für die Versicherungswirtschaft, ivwKöln 2023, 289 ff.

Günther, Dirk-Carsten: Allmähliche, nicht augenscheinliche naturbedingte Bewegungen von Gesteins- oder Erdmassen als „Erdrutsch“, Anmerkung zu BGH, Urteil vom 09.11.2022, IV ZR 62/22, jurisPR-VersR 01/2023, Anm. 3.

Günther, Dirk-Carsten: Anmerkung zu BGH, Urteil vom 24.1.2023 - VI ZR 1234/20, juris PR-VersR 03/2023, Anm. 1.

Günther, Dirk-Carsten: Kommentierung der Elementarschadenversicherung in MünchKom zum VVG, Bd. 3, 3. Auflage, 2023.

Günther, Dirk-Carsten: Kommentierung der Betriebsunterbrechungsversicherung in Looschelders/Pohlmann, VVG, 4. Auflage, 2023.

2022

Materne, Stefan (Hrsg.): Jahresbericht 2021 der Kölner Forschungsstelle Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 1/2022.

Materne, Stefan (Hrsg.): Annual Report 2021 of the Cologne Research Centre for Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 2/2022.

Cremer, Frank / Sheehan, Barry / Fortmann, Michael / Arash N., Kia / Mullins, Martin / Murphy, Finbarr / Materne, Stefan: Cyber risk and cybersecurity: A systematic review of data availability, The Geneva Papers on Risk and Insurance - Issues and Practice, 47, S. 698–736 (2022).

Humberg / Christian / Sheehan, Barry / Shannon, Darren / Fortmann, Michael / Materne, Stefan: Diversification and Solvency II: The Capital Effect of Portfolio Swaps on Non-life Insurers, The Geneva Papers on Risk and Insurance - Issues and Practice (2022).

Fortmann, Michael: §§ 7a-7d VVG, BeckOK VVG, Hg.: Marlow/Spul (2022).

Fortmann, Michael: §§ 320-330 VAG, BeckOK VAG, Hg.: Erdmann/Diehl/Schradin (2022).

Fortmann, Michael: Verpflichtung zur vorläufigen Übernahme von PR-Kosten in der D&O-Versicherung, jurisPR-VersR 2/2022, Anmerkung 2.

Kaya, Hüseyin / Rohlfs, Torsten / Wenzel, Leonard: „Expected Profits Included in Future Premiums“ (EPIFP) bei Lebensversicherern – (k)eine Profitabilitätssicht? Zeitschrift für Versicherungswesen 06/2022, S. 162-164, 15.03.2022.

Fortmann, Michael: § 16. Vorsätzliche und grob fahrlässige Herbeiführung des Versicherungsfalls und § 20. Veräußerung der versicherten Sache, in: Martin/Reusch/Schimikowski/Wandt, Sachversicherung, 4. Aufl. 2022.

Fortmann, Michael: Verbraucher-Cyberversicherung, Beck: 1. Auflage 2022.

Fortmann, Michael: Kap. 14 Versicherungen, in: Meyer, Handbuch Immobilienwirtschaftsrecht, 1. Aufl. 2022.

Fortmann, Michael: Anmerkung zu einer Entscheidung des BGH, Urteil vom 26.01.2022 (IV ZR 144/21) - Zu Fragen zum Versicherungsschutz bei coronapandemiebedingten Betriebsschließungen, r+s 2022, S. 141-142.

Fortmann, Michael: Anmerkung zu dem Beschluss des OLG Nürnberg vom 11.4.2022 (5 W 2855/20) – zur Zulässigkeit einer Nebenintervention des KH-VR im Haftpflichtprozess auf Seiten des Geschädigten, r+s 2022, S. 325-327.

Materne, Stefan (Hrsg.): Proceedings des Researchers‘ Corner zur 15. Jahrestagung des Förderkreises Rückversicherung 2022. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 3/2022.

Materne, Stefan (Hrsg.): Proceedings of the Researchers’ Corner for the 15th Annual Meeting of the Sponsoring Group Reinsurance 2022. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 4/2022.

Cremer, Frank / Sheehan, Barry / Fortmann, Michael / Mullins, Martin / Murphy, Finbarr: Cyber exclusions: An investigation into the cyber insurance coverage gap, in: Michael Lang, Séamus Dowling, Ruth Lennon: Multidisciplinary perspectives on cybersecurity research, practice and education: Proceedings of the 1st Cyber Research Conference Ireland, S. 25 – 32 (2022).

Cremer, Frank: Grenzen des (Rück-) Versicherungsschutzes – Eine Analyse der Ausschlüsse der Cyber-Bedingungen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 5/2022.

Dirks, Jörg: Retrozession innerhalb einer ESG-konformen Geschäftsausrichtung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 6/2022.

Joniec, Robert: Klassische RV-Platzierungen und -Auktionen – Wir wissen, dass wir nichts wissen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2022.

Koch, Wolfgang: Berücksichtigung von Klimawandelszenarien im ORSA. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 8/2022.

Lassen, Fabian: ESG-Kriterien im Underwriting von Rückversicherern. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2022.

Wang, Lihong: Die Entwicklung chinesischer Online-Versicherungen im Jahr 2022. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 10/2022.

Winkler, Erik: Insurance Capital Standard (ICS). Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 11/2022.

Cremer, Frank: Limits of (re)insurance cover – An analysis of exclusions of cyber-conditions. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 12/2022.

Dirks, Jörg: Retrocession within an ESG-compliant business orientation. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 13/2022.

Joniec, Robert: Classic reinsurance placements and auctions – We know that we know nothing. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 14/2022.

Koch, Wolfgang: Accounting for climate-change scenarios in the ORSA. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 15/2022.

Lassen, Fabian: ESG criteria in reinsurer underwriting. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 16/2022.

Wang, Lihong: Developments in Chinese Online Insurance 2022. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 17/2022.

Winkler, Erik: Insurance Capital Standard. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 18/2022.

Heep-Altiner, Maria / Rohlfs, Torsten / Berg, Marcel / Schmidt, Jan-Philipp (Hrsg.): Klima- und Nachhaltigkeitsrisiken für die Versicherungswirtschaft, Wiesbaden: Springer Gabler (2022).

Cremer, Frank / Bauer, Dan: Verfügbarkeit und Bewertung von Daten zu Renewal Rights, in: Zeitschrift für Versicherungswesen (ZfV), 17 | 2022.

Fortmann, Michael: Lückenfüllung bei nicht wirksam einbezogenen AVB, jurisPR-VersR 7/2022 Anmerkung 3.

Fortmann, Michael: Auswirkung einer fehlenden Erlaubnis nach § 32 KWG in der Vermögensschaden-Haftpflichtversicherung des Finanzanlagevermittlers, jurisPR-VersR 8/2022 Anmerkung 2.

Fortmann, Michael: Ist das derzeitige Konzept von D&O-Versicherungen noch zeitgemäß?, PHi 2022, S. 142-149.

Kaya, Hüseyin / Röpke, Romina / Rohlfs, Torsten: Eine vergleichende Analyse von Solvenzquoten und Ratings – Update 2022, Zeitschrift für Versicherungswesen (ZfV), 24/2022, 15.12.2022.

Associate members

Günther, Dirk-Carsten: Kriegsklausel in der Cyberversicherung, Krieg im Zeitalter der Digitalisierung, Podcast des STC Versicherungsmakler, Februar 2022.

Günther, Dirk-Carsten: Gespräch über das Silikonfugenurteil des BGH, Podcast des STC Versicherungsmakler, März 2022.

Günther, Dirk-Carsten: Interview zur Cyberversicherung und zum Ukrainekrieg, Tagesspiegel vom 20.04.2022.

Günther, Dirk-Carsten: Interview für das Magazin Inside Out, Ausgabe 59, Herbst 2021, S. 21.

Günther, Dirk-Carsten: Hier ist die Rechtsentwicklung noch nicht zu Ende, Interview mit VW heute am 31.01.2022 zur ersten BGH-Entscheidung wegen coronabedingter Betriebsschließung (Urteil vom 26.01.2022 – IV ZR 144/21).

Günther, Dirk-Carsten: Geheimhaltungsanordnung zu kalkulatorischen Unterlagen eines Krankenversicherers im Beitragsanpassungsprozess, Urteilsanmerkung zu BGH, Beschluss vom 10.11.2021 – IV ZB 29/20, beck-fachdienst Versicherungsrecht 25/2021 vom 16.12.2021.

Günther, Dirk-Carsten: Hybride Kriegsführung und Ausschluss für Kriegsschäden am Beispiel des russisch-ukrainischen Konflikts, VW 04/2022, S. 68 ff.

Günther, Dirk-Carsten: Keine Deckung für Schließungen wegen COVID-19 in der Betriebsschließungsversicherung, Urteilsanalyse von BGH, Urteil vom 26.01.2022 – IV ZR 144/21, FD-Versicherungsrecht 2/2022 vom 28.01.2022.

Günther, Dirk-Carsten: Betriebsschließungsversicherung wegen Covid-19, NJW 2022, S. 818 ff.

Funke, Benedikt / Roering, Harmen: A resimulation framework for event loss tables based on clustering, European Actuarial Journal, (2022).

2021

Materne, Stefan (Hrsg.): Jahresbericht 2020 der Kölner Forschungsstelle Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 1/2021.

Materne, Stefan (Hrsg.): Annual Report 2020 of the Cologne Research Centre for Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 2/2021.

Fortmann, Michael: Versicherungsschutz für Ansprüche aus § 64 Satz 1 GmbHG in der D&O-Versicherung, jurisPR-VersR 1/2021, Anmerkung 1.

Rohlfs, Torsten / Sebralla, Fabienne: Prüfung der Solvabilitätsübersicht, https://solvency-kompakt.de/content/pruefung-der-solvabilitaetsuebersicht.

Fortmann, Michael: Aufrechnungserklärung als Versicherungsfall in der D&O-Versicherung, jurisPR-VersR 2/2021, Anmerkung 2.

Fortmann, Michael: Versicherungsschutz von Ansprüchen aus § 64 Satz 1 GmbHG a.F. in der D&O-Versicherung, jurisPR-HaGesR 2/2021, Anmerkung 6.

Fortmann, Michael: Betriebsschließungsversicherung – neues Haftungspotenzial für Versicherungsvermittler? R+s 2021, S. 121-128.

Fortmann, Michael: Umfang des Deckungsschutzes im Rahmen der Berufshaftpflichtversicherung für Rechtsanwälte, jurisPR-VersR 4/2021, Anmerkung 1.

Winkler, Erik / Cremer, Frank: 18. Kölner Rückversicherungs-Symposium: Rückversicherung 2021 – Was sind die politischen / regulatorischen Rahmenbedingungen?, in: Die VersicherungsPraxis (VP), 6/2021, S. 40-42.

Fortmann, Michael: Betriebsschließungsversicherung – Anmerkung zu LG Flensburg, Urteil vom 17.12.2020 – 4 O 143/20, COVuR 2021, S. 158.

Fortmann, Michael: Die Prospekthaftungsversicherung, r+s 2021, S. 245.

Materne, Stefan (Hrsg.): Proceedings des Researchers‘ Corner zur 14. Jahrestagung des Förderkreises Rückversicherung 2021. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 3/2021.

Materne, Stefan (Hrsg.): Proceedings of the Researchers’ Corner for the 14th Annual Meeting of the Sponsoring Group Reinsurance 2021. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 4/2021.

Cremer, Frank: Verfügbarkeit und Standardisierung von Daten zu Cyber Risiken. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 5/2021.

Dirks, Jörg: Silent Cyber in der Rückversicherung – Herausforderung und Chancen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 6/2021.

Joniec, Robert: Allokationsmechanismus RV-Markt – Die Schattenseite des Traditionellen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2021.

Koch, Wolfgang: Einschätzung des BaFin Merkblattes zu Nachhaltigkeitsrisiken im Risikomanagement. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 8/2021.

Lassen, Fabian: Einsatz von Auktionen zur Platzierung von Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2021.
Pütz, Fabian: RV-Aspekte von Ökosystemen im Bereich Automotive & Mobility. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 10/2021.

Wang, Lihong: COVID-19 Impact on Chinese (Re)Insurance Industry. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 11/2021.

Cremer, Frank: Availabilty and standardisation of data on cyber risks. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 12/2021.

Dirks, Jörg: Silent Cyber in Reinsurance – Challenges and Opportunities. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 13/2021.

Joniec, Robert: The reinsurance market as allocation mechanism – The shadow side of the traditional. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 14/2021.

Koch, Wolfgang Assessment of the BaFin Guidance Notice on Dealing with Sustainability Risks in Risk Management. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 15/2021.

Lassen, Fabian: Use of auctions for reinsurance placement. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 16/2021.

Pütz, Fabian: Reinsurance aspects of ecosystems in the automotive and mobility field. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 17/2021.

Wang, Lihong: Auswirkungen der COVID-19-Pandemie auf die chinesische Erst- und Rückversicherungswirtschaft. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 18/2021.

Dirks, Jörg: Cyberrisiken in der Rückversicherung – Versicherbar auf parametrischer Basis und durch künstliche Intelligenz?, in: Zeitschrift für Versicherungswesen (ZfV), 21 | 2021, S. 673-677.

Kaya, Hüseyin, Röpke, Romina, Rohlfs, Torsten (2021): Eine vergleichende Analyse von Solvenzquoten und Ratings – Update 2021, in: Zeitschrift für Versicherungswesen (ZfV), 24 | 2021, S. 787-792.

Heep-Altiner / Maria, Rohlfs / Torsten: Die Bewertung von Klimarisiken bei Schaden- /Unfallversicherern, Assekurata-Newsletter 69/2021.

2020

Materne, Stefan (Hrsg.): Jahresbericht 2019 der Kölner Forschungsstelle Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 1-2/2020, 2. Auflage.

Materne, Stefan (Hrsg.): Annual Report 2019 of the Cologne Research Centre for Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 2-2/2020, 2. Auflage.

Fortmann, Michael: Rechtliche Gefahren für Manager im Zusammenhang mit Cybervorfällen, in: Zeitschrift für Versicherungswesen (ZfV), 9 | 2020, S. 273 – 276.

Fortmann, Michael: Managerhaftung und deren Deckung in Zeiten des Coronavirus SARS-CoV-2, in: juris PraxisReport Versicherungsrecht (jurisPR-VersR) 5 | 2020 Anmerkung 2

Fortmann, Michael: Betriebsschließungsversicherungen in der Coronakrise, in: Zeitschrift für Versicherungswesen (ZfV), 10 | 2020, S. 300

Materne, Stefan (Hrsg.): Proceedings des Researchers‘ Corner zur 13. Jahrestagung des Förderkreises Rückversicherung 2020. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 3/2020.

Materne, Stefan (Hrsg.): Proceedings of the Researchers’ Corner for the 13th Annual Meeting of the Sponsoring Group Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 4/2020.

Dietmann, Manuel: Präventive Sanierungsplanung bei Versicherungsunternehmen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 5/2020.

Dirks, Jörg: Cyberrisiken in der Rückversicherung – Versicherbar auf parametrischer Basis und durch künstliche Intelligenz? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 6/2020.

Joniec, Robert: Kapital ist fungibel, der Markt wird effizienter – Doch wie valide sind Forschungsergebnisse? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2020.

Koch, Wolfgang: Entwicklung der Sovereign Cat Pools in Schwellen- und Entwicklungsländern. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 8/2020.

Lassen, Fabian: Environmental Social Governance – Ein Blick auf die Rückversicherer. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2020.

Pütz, Fabian: RV-Aspekte von Produktrückrufen im Automobilbereich. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 10/2020.

Dietmann, Manuel: Preventive recovery planning for insurance companies. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 11/2020.

Dirks, Jörg: Cyber risks in reinsurance – Insurable on a parametric basis and through artificial intelligence? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 12/2020.

Joniec, Robert: Capital is fungible, the market is growing more efficient – But how valid are research results? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 13/2020.

Koch, Wolfgang: Trend in sovereign cat pools in emerging and developing economies. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 14/2020.

Lassen, Fabian: Environmental social governance – A look at the reinsurer. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 15/2020.

Pütz, Fabian: Reinsurance aspects of product recalls in the automobile sector. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 16/2020.

Wang, Lihong: China’s Belt and Road Initiative (BRI) – Its impact on the global (re)insurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 17/2020.

Materne, Stefan (Hrsg.): Die Rückversicherung nach HIM. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 18/2020.

Pütz, Fabian / Materne, Stefan: Transfer von Naturkatastrophenrisiken von Schwellenländern über Cat-Bonds (I.), in: Zeitschrift für Versicherungswesen (ZfV), 15-16 | 2020, S. 499-503.

Fortmann, Michael: Coronakrise und Betriebsschließungen – noch kein Ende der Unsicherheit in Sicht, in: Zeitschrift für Versicherungsrecht, Haftungs- und Schadenrecht (VersR), 17 | 2020, S. 1073-1081.

Pütz, Fabian: Das Risiko von Produktrückrufen im Zeitalter von vernetzten automatisierten Fahrzeugen, in: Versicherungspraxis (VP), 9/2020, S. 17-22.

Pütz, Fabian / Materne, Stefan: Transfer von Naturkatastrophenrisiken von Schwellenländern über Cat-Bonds (II.), in: Zeitschrift für Versicherungswesen (ZfV), 17 | 2020, S. 532-538.

Fortmann, Michael: Managementhaftung und Eigenschadenabsicherung – Eine gute Kombination für Manager?, in: Neue Juristische Wochenschrift (NJW), 42 | 2020, S. 3064 – 6068.

Fortmann, Michael: Organhaftung und Versicherungsschutz bei Ansteckungsrisiken, in: Arbeitsschutz in Recht und Praxis, 12 | 2020, S. 384-386.

Fortmann, Michael: Betriebsschließungsversicherung – ein Update, in: recht und schaden (r+s), 12 | 2020, S.665 – 675.

2019

Materne, Stefan (Hrsg.): Jahresbericht 2018 der Kölner Forschungsstelle Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 1/2019.

Materne, Stefan (Hrsg.): Annual Report 2018 of the Cologne Research Centre for Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 2/2019.

Materne, Stefan (Hrsg.): Proceedings of the Researchers' Corner for the 11th Annual Meeting of the Sponsoring Group Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 3/2019.

Wang, Lihong: Rising Middle Class in China and the impact on insurance and reinsurance, in Versicherungswirtschaft (VW), Nr. 02/2019, S. 30-32.

Pütz, Fabian: Reinsurance aspects of connected automated vehicles: Motor Insurance, in Versicherungswirtschaft (VW), Nr. 03/2019, S. 90-96.

Pütz, Fabian: Reinsurance aspects of connected automated vehicles: Product Liability and Product Recall Insurance, in: Zeitschrift für Versicherungswesen (ZfV), 05|2019, S. 153-156.

Pütz, Fabian: Führt das automatisierte Fahren zu einer materiellen Verlagerung von Haftungskosten auf die Herstellerseite?, in Versicherungspraxis (VP), 5/2019, S. 8-12.

Hartramph, Evelyn: 16. Kölner Rückversicherungs-Symposium, Rückversicherung 2019 – Ausnahmezustand oder neue Normalität?, in Versicherungspraxis (VP), 6/2019, S. 31-33.

Hartramph, Evelyn: Ausnahmezustand oder Neue Normalität in der Rückversicherung?, in Zeitschrift für Versicherungswesen (ZfV), 12|2019, S. 366-367.

Materne, Stefan (Hrsg.): Proceedings des Researchers‘ Corner zur 12. Jahrestagung des Förderkreises Rückversicherung 2019. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 4/2019.

Koch, Wolfgang / Materne, Stefan: Informationsasymmetrien zwischen Rückversicherungsmaklern und Zedenten, in Zeitschrift für Versicherungswesen (ZfV), 21|2019, S. 648-654.

Materne, Stefan (Hrsg.): Proceedings of the Researchers’ Corner for the 12th Annual Meeting of the Sponsoring Group Reinsurance 2019. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 5/2019.

Dietmann, Manuel: Zunehmende Bedeutung der Risikomanagementfunktion in Versicherungsunternehmen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 6/2019.

Dirks, Jörg: Unbemannte Fluggeräte – Evolution des Luftfahrt (Rück-) Versicherungsmarktes. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2019.

Joniec, Robert: Wie geht es dem Rückversicherung-Zyklus? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 8/2019.

Knocks, Kai-Olaf: Der ILS-Markt 2019 – abgeschreckt oder abwartend. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2019.

Koch, Wolfgang: Informationsasymmetrien zwischen Rückversicherungsmaklern und Zedenten. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 10/2019.

Lassen, Fabian: Senkung der Volatilität durch Einsatz eines versicherungstechnischen Swaps. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 11/2019.

Pütz, Fabian: Transfer von Cat-Risiken von Schwellenländern aus volkswirtschaftlicher Perspektive. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 12/2019.

Dietmann, Manuel: The increasing importance of the risk-management function in insurance companies. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 13/2019.

Dirks, Jörg: Unmanned aircraft – Evolution of the market for aviation (re-)insurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 14/2019

Joniec, Robert: How is the reinsurance cycle doing? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 15/2019.

Knocks, Kai-Olaf: The ILS market in 2019 – discouragement or wait-and-see? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 16/2019.

Koch, Wolfgang: Information asymmetries between reinsurance brokers and assignors. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 17/2019.

Lassen, Fabian: Reducing volatility through use of an insurance swap. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 18/2019.

Pütz, Fabian: Transferring cat risks from emerging markets from a macroeconomic perspective. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 19/2019.

Wang, Lihong: China InsurTech Development. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 20/2019.

Dirks, Jörg: Wandel der Geschäftsbeziehungen – Wird durch die Distributed-Ledger-Technologie die direkte Beziehung zwischen Erst- und Rückversicherungsunternehmen gestärkt?, in Versicherungspraxis (VP), 11/2019, S. 17-19.

2018

Böggemann, Jan: Optimierung des Einkaufs von Rückversicherung im Industrieunternehmen, Die VersicherungsPraxis, Fachzeitschrift für die versicherungsnehmende Wirtschaft, Ausgabe 6/2018, ISSN 0170 - 24 4 0, S. 6-7.

Materne, Stefan (Hrsg.): Jahresbericht 2017 der Kölner Forschungsstelle Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 1/2018.

Materne, Stefan (Hrsg.): Annual Report 2017 of the Cologne Research Centre for Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 2/2018.

Materne, Stefan (Hrsg.): Proceedings of the Researchers' Corner for the 10th Annual Meeting of the Sponsoring Group Reinsurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 3/2018.

Schumann-Kemp, Brigitte: Bericht zum 15. Kölner Rückversicherungs-Symposium Rückversicherung 2018 – Retrozession 2018 – nach Harvey, Irma und Maria? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 4/2018.

Materne, Stefan / Seemayer, Thomas: Rückversicherung, in: Halm/Engelbrecht/Krahe (Hrsg.): Handbuch des Fachanwalts Versicherungsrecht, 6. Auflage, Köln.

Materne, Stefan (Hrsg.): Proceedings des Researchers‘ Corner zur 11. Jahrestagung des Förderkreises. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 5/2018.

Joniec, Robert: Wetterrisiko – Entwicklung und Standardisierung neuer Deckungskonzepte, Die VersicherungsPraxis, Fachzeitschrift für die versicherungsnehmende Wirtschaft, Ausgabe 8/2018, ISSN 0170 - 24 4 0, S. 20-21.

Lassen, Fabian, Eich, Markus, Materne Stefan: Tausche Risiko, biete Entlastung - Wie die Senkung der Volatilität durch den Einsatz eines versicherungstechnischen Swaps gelingt, in Versicherungswirtschaft (VW), Nr. 11/2019, S. 70-73.

Joniec, Robert: Weather Derivative Design in Wine Production: A Preliminary Study for Mediterranean Grapes, 1. November 2018 / Zeitschrift für Versicherungswesen (ZfV) 21|2018, S. 659-662.

Pütz, Fabian: Was bedeutet das autonome Fahren für Herstellerhaftung und Opferschutz?, in VGA Nachrichten, Jahrgang 67,2018 – Nr. 3, ISSN 0170 – 96660, S. 111-112.

Pütz, Fabian: Die Auswirkungen automatisierter Fahrzeuge auf das Geschäftsmodell der Kfz-Versicherung: Die Wirkung von Rechts- und Motivationsaspekten auf das Regressverhalten des Kfz-Versicherers 15. November 2018 / Zeitschrift für Versicherungswesen (ZfV) 22|2018, S.697-700.

Lassen, Fabian / Eich, Markus / Materne, Stefan: Entwicklung eines länderübergreifenden Versicherungspools und anderer risikopolitischer Maßnahmen zur Reduzierung der Volatilität von lokalen Naturgefahren. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 6/2018.

Dietmann, Manuel: Interne Überprüfung des Governance-Systems in der Praxis. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2018.

Dirks, Jörg: DLT – Wandel der Geschäftsbeziehungen zwischen Erst- und Rückversicherungsunternehmen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 8/2018.

Knocks, Kai-Olaf: Die Drohnen-Verordnung und ihre (möglichen) Auswirkungen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2018.

Koch, Wolfgang: Risikotransfer in Schwellen- und Entwicklungsländern. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 10/2018.

Lassen, Fabian: Pooling von lokalen Naturkatastrophen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 11/2018.

Pütz, Fabian: RV-Aspekte des (vernetzten) automatisierten Fahrens. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 12/2018.

Dietmann, Manuel: Internal Review of the Governance System in practice. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 13/2018.

Dirks, Jörg: DLT – Change in Business Relationships between Primary Insurers and Reinsurance Companies. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 14/2018.

Knocks, Kai-Olaf: The Drone Regulation and Its (Possible) Impacts. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 15/2018.

Koch, Wolfgang: Risk Transfer in Emerging and Developing Countries. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 16/2018.

Lassen, Fabian: Pooling of Local Natural Disasters. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 17/2018.

Pütz, Fabian: Reinsurance Aspects of (Networked) Automated Driving. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 18/2018.

Wang, Lihong: The Rising Middle Class in China and Its Implications for (Re)Insurance Industry. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 19/2018.

2017

Materne, Stefan (Hrsg.): Jahresbericht 2016 der Kölner Forschungsstelle Rückversicherung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 1/2017.

Materne, Stefan (Hrsg.): Forschungsbericht 2016 des Forschungsschwerpunkts Rückversicherung. In: Forschungsbericht für das Jahr 2016, Schriftenreihe Forschung am ivwKöln, Band 1/2017.

Hoos, Sebastian: Die (Rück-) Versicherung von Flüchtlingsunterkünften unter dem Blickwinkel der Terrorismusregelungen in der deutschen Sachversicherung, Zeitschrift für Versicherungswesen (ZfV) 01/2017, S. 25-27.

Kaiser, Lucas: Bedeutung von Ratings für Rückversicherungsunternehmen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 2/2017.

Schumann-Kemp, Brigitte: Bericht zum 14. Kölner Rückversicherungs-Symposium 2017 – Protektionismus durch Regulierung? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 3/2017.

Pütz, Fabian / Wichelhaus, Ingo / Materne, Stefan: Konzeption eines proportionalen Solvency Bonds zur Reduktion des vorzuhaltenden Risikokapitals für das Prämien- und Reserverisiko unter Solvency II, Zeitschrift für Versicherungswesen (ZfV) 21/2017, S. 660-662.

Materne, Stefan (Hrsg.): Proceedings des Researchers‘ Corner zur 10. Jahrestagung des Förderkreises Rückversicherung am 7. Juli. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 4/2017.

Materne, Stefan: Chinas Rückversicherungsmarkt stagniert aufgrund zunehmender Regulierung. Interview in Versicherungswirtschaft (VW) 12/2017, S. 49.

Wang, Lihong: Dragon with Endurance – How China's Economic Slowdown Impacts the Insurance Industry, Versicherungswirtschaft (VW) 12/2017, S. 48-50.

Materne, Stefan: Die US-Schäden testen die ILS-Investoren. Interview in Versicherungswirtschaft heute, 04.12.2017, http://versicherungswirtschaftheute. de/maerkte-vertrieb/chinas-ruckversicherer-leiden-unter-regulierung.

Pütz, Fabian / Materne, Stefan: Alternative Capital und Basisrisiko in der Standardformel (non-life) von Solvency II. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle

Rückversicherung, Band 5/2017. Auch erschienen in der Schriftenreihe Forschung am ivwKöln, Band 8/2017.

Böggemann, Jan: Optimierung des Einkaufs fakultativer Rückversicherung eines Idustrieversicherers. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 6/2017.

Dietmann, Manuel: SFCR: Erkenntnisse zur erstmaligen Veröffentlichung. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 7/2017.

Hoos, Sebastian: Kritische Analyse der Praxisanwendung der Ereignisdefinition. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 8/2017.
Joniec, Roboert: Acturial Swap. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 9/2017.

Kaiser, Lucas: Auswirkungen verschiedener Determinanten auf das Rating von Rückversicherungsunternehmen. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 10/2017.

Knocks, Kai-Olaf: Autonomes Fahren – Evolution oder Revolution?. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 11/2017.

Lassen, Fabian: Beschäftigte in der Rückversicherungsindustrie – Deutschland und USA. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 12/2017.

Pütz, Fabian: Alternative Capital und Basisrisiko in der Standardformel (non-life) von Solvency II. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 13/2017.

Böggemann, Jan: Optimizing the Purchase of Optional Reinsurance by industrial Insurer. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 14/2017.

Dietmann, Manuel: SCFR: Findings for Initial Publication. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 15/2017.

Hoos, Sebastian: Critical Analysis of the Practical Application of the Definition of an Event. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 16/2017.

Joniec, Robert: Acturial Swap. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 17/2017.

Kaiser, Lucas: The Impact of Different Determinants on the Rating of Reinsurance Companies. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 18/2017.

Knocks, Kai-Olaf: Autonomes Driving: Evolution or Revolution? Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 19/2017.

Lassen, Fabian: Employees in the Reinsurance Industry: Germany and the USA. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 20/2017.

Pütz, Fabian: Alternative Capital and Basic Risk in the Standard Formula (NonLife) of Solvency II. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 21/2017.

Wang, Lihong: Chinese Automobile Vehicle Recall Insurance. Technische Hochschule Köln. Publikationen der Kölner Forschungsstelle Rückversicherung, Band 22/2017.

2016

Hoos, Sebastian: Die (Rück-) Versicherung von Flüchtlingsunterkünften unter dem Blickwinkel der Terrorismusregelungen in der deutschen Sachversicherung, Zeitschrift für Versicherungswesen (ZfV) 24/2016, S. 779-782.

Lassen, Fabian: Offshore Windparks und Rückversicherung, Zeitschrift für Versicherungswesen (ZfV) 21/2016, S. 658-660.

Pütz, Fabian / Engling, Matthias / Materne, Stefan: Die Bedeutung der Ereignisdefinition im Underwriting-Prozess des Rückversicherers Technische Hochschule Köln. Forschung am ivwKöln, Band 9-2/2016 (2.Auflage). https://cos.bibl.th-koeln.de/frontdoor/index/index/docId/379

Lassen, Fabian / Kaiser, Lucas: Ist die Rückversicherung noch der Fels in der Brandung? Zeitschrift für Versicherungswesen (ZfV) 12/2016, S. 379.

Lassen, Fabian / Kaiser, Lucas: Ist die Rückversicherung noch der Fels in der Brandung? Versicherungspraxis (VP) 8/2016, S. 28.

Materne, Stefan: Rückversicherung: Anpassung des Geschäftsmodells ähnelt Kursänderung eines Tankers, Bericht vom 31. Mai 2016, in: Versicherungswirtschaft-Heute, Tagesreport.

Materne, Stefan (Hrsg.): Jahresbericht 2015 des Forschungsschwerpunkts Rückversicherung. Köln: Technische Hochschule Köln. (Forschung am ivwKöln, 2/2016). https://www.th-koeln.de/mam/downloads/deutsch/hochschule/fakultaeten/wirtschafts_und_rechtswissenschaften/fsrv_jahresbericht_02_2016_v2_webversion.pdf

Materne, Stefan (Hrsg.): Forschungsbericht 2015 des Forschungsschwerpunkts Rückversicherung. Köln: Technische Hochschule Köln. (Forschung am IVW Köln, 1/2016). https://www.th-koeln.de/mam/downloads/deutsch/hochschule/fakultaeten/wirtschafts_und_rechtswissenschaften/webversion_01_2016.pdf, S. 3-9.

2015

Axer, Jochen / Medert, Heiko Klaus / Voß, Birgit: Versicherungsteuergesetz – Kommentar, Karlsruhe: Verlag Versicherungswirtschaft GmbH, 2015.

Pütz, Fabian: Die Bedeutung der Ereignisdefinition im Underwritingprozess des Rückversicherers, Zeitschrift für Versicherungswesen (ZfV) 21/2015, S. 711-712.

Wang, Lihong: Competitive Market - Employer’s Liability Business in China, Versicherungswirtschaft (VW) 11/2015, S. 40-42.

Knocks, Kai-Olaf / Materne, Stefan: Risiko Drohnen: Unbemannte Fluggeräte in der Haftpflichtversicherung, Zeitschrift für Versicherungswesen (ZfV) 18/2015, S. 587-590.

Materne, Stefan / Seemayer, Thomas: Rückversicherung, in: Halm/Engelbrecht/Krahe (Hrsg.): Handbuch des Fachanwalts Versicherungsrecht, 5. Auflage, Köln, 2015, S. 2359-2399.

Materne, Stefan: Rückversicherer vor substantiellen Fragen: Hurrikane nicht das Thema. Bericht vom 12. Mai 2015, in: Versicherungswirtschaft-Heute, Tagesreport.

Hoos, Sebastian: Das Geschäftsmodell der Rückversicherer – den Herausforderungen gewachsen?. Bericht zum 12. Kölner Rückversicherungs-Symposium vom 12. Mai 2015, in: Zeitschrift für Versicherungswesen (ZfV), Nr. 11/2015, S. 342-343.

Hoos, Sebastian: Das Geschäftsmodell der Rückversicherer – den Herausforderungen gewachsen?. Bericht zum 12. Kölner Rückversicherungs-Symposium vom 12. Mai 2015, in: Versicherungspraxis (VP), Nr. 7/2015, S. 34.

Materne, Stefan: Im Bereich der Rückversicherung gibt es keinen Kopierschutz, in: Versicherungswirtschaft (VW), Nr. 9/2015, S. 18-19.

2014

Materne, Stefan: Paradigmenwechsel bei Rückversicherern möglich, Interview zum 11. Rückversicherungs-Symposium in Köln, vom 15.05.2014, in: Versicherungswirtschaft-Heute, Tagesreport.

Hoos, Sebastian: Risikotransfer 2.0 – welche Rolle spielen die Rückversicherer?, Bericht zum 11. Kölner Rückversicherungs-Symposium vom 15. Mai 2014, in: Zeitschrift für Versicherungswesen (ZfV), Nr. 12/2014, S. 355-356.

Hoos, Sebastian / Materne, Stefan / Wichelhaus, Ingo: Die Verbriefung von Langlebigkeitsrisiken durch Longevity Bonds - Darstellung anhand zweier Praxisbeispiele (I.), in: Zeitschrift für Versicherungswesen (ZfV), Nr. 11/2014, S. 327-331.
Hoos, Sebastian / Materne, Stefan / Wichelhaus, Ingo: Die Verbriefung von Langlebigkeitsrisiken durch Longevity Bonds - Darstellung anhand zweier Praxisbeispiele (II.), in: Zeitschrift für Versicherungswesen (ZfV), Nr. Nr. 12/2014, S. 365-368.

Hoos, Sebastian / Heep-Altiner, Maria: Vereinfachter Nat Cat Modellierungsansatz zur Rückversicherungsoptimierung, in: Forschung am IVW, März 2014.

Knocks, Kai-Olaf: Kapitalzufluss im Cat-Bond-Markt – Günstiges Umfeld für Risikosponsoren.

2013

Wang, Lihong: Positive increase of insurance density and penetration in China, in: Versicherungswirtschaft (VW), Heft 22/2013, S. 36 - 38.

Knocks, Kai-Olaf: Das Ende der Zyklen, in: Versicherungswirtschaft (VW), Heft 12/2013, S. 69.

Materne, Stefan / Seemayer, Thomas: Mitrückversicherung, in: Lüer, Dieter / Schwepcke, Andreas (Hrsg.): Rückversicherungsrecht, München, Verlag C.H. Beck, 2013, S. 693-730.

2012

Knocks, Kai-Olaf / Seemayer, Thomas: Geschäftsmodelle in der Rückversicherung - für die Zukunft gerüstet?, Das 9. Kölner Rückversicherungs-Symposium, in: Zeit-schrift für Versicherungswesen (ZfV), Heft 13-14/2012, S. 415-416.

Wang, Lihong: Case Study Passenger Carrier Liability (PCL) Insurance in China, in: Zeitschrift für Versicherungswesen (ZfV), Heft 21/2012, S. 687-690.

2011

Reimers-Rawcliffe, Lutz: Eine Darstellung von Rückversicherungsprogrammen mit Anwendung auf den Kompressionseffekt, in der Publikationsreihe Forschung am IVW, Nr. 5/2011.

Knocks, Kai-Olaf / Materne, Stefan: Kosten von Catbonds – Einflussfaktoren und aktuelle Tendenzen, in: Zeitschrift für Versicherungswesen (ZfV), Heft 21/2011, S. 707-714.

Knocks, Kai-Olaf / Materne, Stefan: Positive Aussichten für Katastrophenanleihen, in: Versicherungswirtschaft (VW), Heft 15/2011, S. 1075-1081.

Knocks, Kai-Olaf / Seemayer, Thomas: Wendepunkt in der Rückversicherung? Das 8. Kölner Rückversicherungs-Symposium, in: Zeitschrift für Versicherungswesen (ZfV), Heft 12/2011, S. 422-423.

Materne, Stefan / Seemayer, Thomas: Rückversicherung, in: Halm / Engelbrecht / Krahe (Hrsg.): Handbuch des Fachanwalts Versicherungsrecht, 4. Auflage, Köln, Luchterhand, 2011, S. 2545-2586.

2010

Seemayer, Thomas: Die EU-Sektoruntersuchung zu den Unternehmensversicherungen: Meistbegünstigungsklauseln in Rückversicherungsverträgen unter Berücksichtigung des Kartellrechts, in Zeitschrift für die gesamte Versicherungswissenschaft (ZVersWiss) (2010) 98, S. 603 – 612.

Delbrück, Hans-Helmuth / Seemayer, Thomas: D&O im Versicherungskonzern – Lücken im Selbstbehalt?, in Versicherungswirtschaft (VW), Heft 21/2010, S. 1512-1514.

Materne, Stefan / Schnusenberg, Oliver: Sprechen Sie Bias? An investigation of cultural differences in behavioral finance biases between Germany and the United States, in: Journal of Behavioral Studies in Business <http://www.aabri.com/jbsb.html> (19. September 2010).

Axer, Jochen / Seemayer, Thomas: Die Neuausrichtung der Vorstandsvergütung bei Versicherungsunternehmen: Idee, Regelungsgehalt und Zielsetzung (I.), in Zeitschrift für Versicherungswesen (ZfV), 2010, Nr. 14 S. 510 ff.

Axer, Jochen / Seemayer, Thomas: Die Neuausrichtung der Vorstandsvergütung bei Versicherungsunternehmen: Idee, Regelungsgehalt und Zielsetzung (II.), in Zeitschrift für Versicherungswesen (ZfV), 2010, Nr. 15/16 S. 552-555.

Knocks, Kai-Olaf / Materne, Stefan: Grenzen und Herausforderungen bei der Verbriefung von Versicherungsrisiken, in: Zeitschrift für Versicherungswesen (ZfV), Heft 11/2010, S. 767-771.

Seemayer, Thomas: Der Ereignisbegriff in Schadenexzedentenverträgen in der Rückversicherung von Haftpflichtrisiken, Schriftenreihe des Instituts für Versicherungswesen der Fachhochschule Köln, Karlsruhe, Verlag Versicherungswirtschaft, 2010.

Seemayer, Thomas / Materne, Stefan: Viele Ereignis-Begriffe verderben die Rückdeckung in Haftpflicht, in Versicherungswirtschaft (VW), Heft 5/2010, S. 356-360.

Seemayer, Thomas: Entwendungstatbestände in der Fahrzeug-Kaskoversicherung – zugleich Anmerkung zu OLG Köln vom 22. Juli 2008 in: Recht und Schaden (r+s) 2010, S. 6-11.

Materne, Stefan / Knocks, Kai-Olaf: Verbriefung von Versicherungsrisiken – Alternativer Risikotransfer für Industrieunternehmen?, in: Die VersicherungsPraxis, Heft 1/2010, S. 4-9.

2009

Materne, Stefan / Seemayer, Thomas: Die kartellrechtliche Behandlung der Praxis der Meistbegünstigung in der EU-Sektoruntersuchung, in: VersicherungsRecht (VersR) 2009, Heft 28/2009 S. 1326-1333.

Knocks, Kai-Olaf: Auch im K-Markt kann sich Verbriefung von Risiken lohnen – Bilanzielle Auswirkungen am Beispiel der Sparc Europe, in: Versicherungswirtschaft (VW), Heft 14/2009, S. 1124-1126.

Materne, Stefan / Seemayer, Thomas: Die Aufsicht über Mixed Insurance Companies nach dem VAG, in: Zeitschrift für Versicherungswesen (ZfV), Heft 14/2009 S. 466-467.

Seemayer, Thomas: Höhere Preise, mehr Eigendeckung, Wunsch nach Vielfalt: Die Rückversicherer und die Finanzkrise, in: Zeitschrift für Versicherungswesen (ZfV), Heft 13/2009, S. 428-430.

2008

Materne, Stefan / Diehl, Frank: Rückversicherung, in: Halm / Engelbrecht / Krahe (Hrsg.): Handbuch des Fachanwalts Versicherungsrecht, 3. Auflage, Köln, Luchterhand, 2008.

Seemayer, Thomas: Rückversicherer – Ruhe vor dem Sturm?, in: Zeitschrift für Versicherungswesen (ZfV), Heft 13/2008, S. 423-424.

Seemayer, Thomas: Verbriefung von Versicherungsrisiken – Zum Vortrag von Prof. Stefan Materne, in: Versicherungsbetriebswirt (VB), Heft 4/2008, S. 115.

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