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42 Imprint
On April 1st Helmut Gründl handed over the directorship of ICIR to me. First and foremost, I would therefore like to take this opportunity to cordially thank Helmut Gründl for his commitment to ICIR during his time as ICIR’s director since its foundation in the winter semester of 2010/11. Since starting at Goethe University in spring 2014, I have come to know Helmut Gründl as a warm-hearted, truly pleasant and very competent colleague. This impression has been strongly reinforced since I joined the ICIR executive board last year. I am very grateful to Helmut Gründl for the smooth transition of the directorship which he organized, for his ongoing support and advice, and for his continued commitment to ICIR.

Although ICIR is under a new directorship, the composition of the executive board, and with it the focus of our activities as well, remains unaltered. Helmut Gründl represents our research and policy work on insurance finance, Manfred Wandt is responsible for insurance law, and I focus on social insurance. Along with our doctoral students and our postdoctoral-level early career researchers, we are thus a team covering a broad range of topics, which has been reflected in the output of ICIR over the past year. We proudly present this output in the section on publications in this annual report.

In addition to these activities, we have continued our successful series of the Digital Insurance Forum (DIF) with three events this year. The wide-ranging topics have covered a discussion on the open issues and questions in

Stable Course in Turbulent Times

Prof. Dr. Alexander Ludwig
the European Commission's proposal for Insurance Recovery and Resolution (IRRD) in March, the question of whether Blockchain technology can be used to protect subsistence farmers from climate risks in June, and the macroeconomic question of whether pension fund investments raise aggregate productivity of an economy in November. As well as continuing this successful series, we have also started a new endeavor by creating the ICIR Blog, where we plan to write selective but regular contributions on issues related to insurance economics and insurance law. The main purpose of our blog is to write shorter summaries of our insurance-related topics every other year – so the next one will take place in winter 2024 – and the conference on Global Insurance Supervision (GIS) every other year in between, with the next one scheduled to take place on 6 – 7 September 2023.

Overall, we can therefore look back and ahead to very broad, fruitful and intellectually inspiring activities both in our research and in our policy outreach. The year 2022 has been characterized by a reversion to normal with regard to our teaching and research activities at Goethe University. Although the threat of the corona crisis is still with us, this trend will continue. Because of the terrible war in Ukraine and soaring inflation, the coming months will be marked by great uncertainty for the world economy and harm to many individuals, but we are optimistic that in 2023 the situation will calm down and that we will also see a trend reversal in inflation, finally reaching more normal levels in 2024. Of course, any such outlook is very uncertain. What is certain, however, is that ICIR will continue and reinforce its successful activities!

Closing with this optimistic tone, let me take this opportunity to also thank my executive board colleagues Helmut Gründl and Manfred Wandt and the entire team of ICIR for our excellent collaboration and the great work over the past year. I would also sincerely like to thank the members of the Advisory Board for their commitment to ICIR, especially the Chair of the Advisory Board, Dr. Mächler, for her tireless work on behalf of ICIR. Furthermore, I wish to thank the new president of the German Insurance Association, Dr. Norbert Rollinger, for all his excellent contributions to our work on the Advisory Board. On behalf of ICIR, I congratulate Dr. Norbert Rollinger on his election and we wish him all the best in the new position. We regret, but of course perfectly understand, that Dr. Norbert Rollinger has had to step down from his position on our Board. At the same time, we are happy to welcome Tillmann Lukosch as a new member of the Advisory Board and we look forward to our collaboration with him.

Beyond this policy outreach of ICIR, we are very pleased to announce our scientific conference on 14 – 15 December on the “Private and Social Insurance Implications of Demographic Change”, where internationally renowned experts in the field will present their work. In general, we plan to organize a scientific conference on the economics of activities for the general public, and it will receive a sparkling new appearance – along with our entire web presence – through the launch of our new website towards the end of this year.

Last but not least, I would like to thank the Goethe University, the German Insurance Association (GDV) and the State of Hesse for their continuous commitment to a fruitful evolution of ICIR.

Yours sincerely,

Prof. Dr. Alexander Ludwig
Director of ICIR
The Year at a Glance

2021
8 November 2021
Goethe University Frankfurt, Virtual
ICIR Digital Insurance Forum 2021 – III
InsurTech enabled business models - Sustainable regulatory responses

11 November 2021
Insurance Committee of IHK Frankfurt
Presentation by Helmut Gründl
Effects of the continuing low-interest rate environment on the insurance industry

11 November 2021
DVfVW Video-Podcast
Talk with Helmut Gründl
Sustainable Investments in Life Insurance Companies

2022
1 March 2022
Versicherungswirtschaft Article by Helmut Gründl and Mirko Kraft
New Rules - How Risk-Based are the Solvency II Reform Proposals?

16 – 17 March 2022
Virtual Research Presentation
Annual Congress of the German Association for Insurance Studies (DVfVW) 2022

31 March 2022
Goethe University Frankfurt, Virtual
ICIR Digital Insurance Forum 2022 – I
Recovery and Resolution: Open Issues

2 April 2022
Policy Platform Launch of the ICIR Blog
Two Articles by Alexander Ludwig

14 June 2022
Goethe University Frankfurt, Virtual
ICIR Digital Insurance Forum 2022 – II
Pandemic Risk and Insurance – Do We Need Private-Public Partnership

26 July 2022
Börsen-Zeitung Article by Helmut Gründl and Hato Schmeiser
Thoughts on the Insurability of Pandemic Risks

31 July – 3 August 2022
Long Beach, California
Research Presentations Annual Meeting of the American Risk and Insurance Association (ARIA) 2022

15 – 17 September 2022
Ohrid, North Macedonia
Research Presentation First Annual Conference of the Eastern European Risk and Insurance Association (EERIA) 2022

2022
10 November 2022
Goethe University Frankfurt, Virtual
ICIR Digital Insurance Forum 2022 – III
Pension Finance and Long-run Productivity

14 – 15 December 2022
Goethe University Frankfurt
First ICIR Academic Conference
The Private and Social Insurance Implications of Demographic Change
The International Center for Insurance Regulation (ICIR) is recognized as a leading scientific institution fostering independent research on insurance regulation and market solutions to regulatory questions. As an integral part of Goethe University in Frankfurt, the ICIR is committed to Goethe University’s values and mission statement.

**Research**
The ICIR provides an international and interdisciplinary platform for scholars, executives of the insurance industry, regulatory authorities, and policy makers to exchange ideas and shape strategic thinking about the future development of insurance and insurance regulation.

**Education**
The ICIR offers several lectures and seminars within the Bachelor and Master degree programs at the Faculty of Economics and Business Administration of Goethe University in order to increase professional knowledge in the field of insurance economics and insurance regulation.
Funding and Partners

We would like to express our gratitude towards our funding partners, cooperation partners, and all the people within our network, for their continuous trust and tremendous support shaping the ICIR’s development.

The ICIR receives generous funding by the State of Hesse (Land Hessen), the German Insurance Association (Gesamtverband der Deutschen Versicherungswirtschaft (GDV)) and the Goethe University for a period of five years.

Goethe University, a research-oriented university at the heart of Europe's financial center Frankfurt am Main, provides an outstanding and modern infrastructure located on the Campus Westend in the House of Finance.

Goethe University gives the ICIR a unique scientific environment for interdisciplinary research.

In addition, the ICIR has received further research funding from the German Association for Insurance Studies (Deutscher Verein für Versicherungswissenschaft e.V.) in Berlin, the Frankfurt Association for the Promotion of Insurance Studies at Goethe University (Förderkreis für die Versicherungslehre an der Johann Wolfgang Goethe-Universität) and Goethe Finance Association e.V. (GFA).
The Executive Board

Prof. Dr. Alexander Ludwig
Professor
Chair of Public Finance and Macroeconomic Dynamics
Goethe University
Director
International Center for Insurance Regulation (ICIR)

Prof. Dr. Helmut Gründl
Professor
Chair for Insurance, Insurance Supervision and Insurance Regulation, sponsored by the German Insurance Association (GDV)
Executive Board Member

Prof. Dr. Manfred Wandt
Professor
Chair of Civil Law, Commercial and Insurance Law, Private International Law and Comparative Law
Goethe University
Managing Director
Institute for Insurance Law
Founding Director
International Center for Insurance Regulation (ICIR)
The Advisory Board

Jörg Asmussen  
CEO, Gesamtverband der Deutschen Versicherungswirtschaft e.V. (German Insurance Association)

Christoph Bohn  
CEO, Alte Leipziger Holding AG

Dr. Frank Grund  
Chief Executive Director of Insurance and Pension Funds Supervision, Federal Financial Supervisory Authority BaFin

Prof. Dr. Thomas Vesting  
Dean, Faculty of Law, Goethe University Frankfurt Authority BaFin, Bonn

Petra Hielkema  
Chairperson, European Insurance and Occupational Pensions Authority (EIOPA)

Prof. Dr. Michael Huth  
Vice President, Goethe University Frankfurt, Bonn

Stefan Lehmann  
Chief Executive Officer, Generali Deutschland AG, Chair of the presidential committee: Corporate governance at GDV

Dr. Monica Mächler  
(Chair of the ICIR Advisory Board)  
Member of the Board of Directors of Zurich Insurance Group Ltd., former Vice Chair of the Board of Directors of FINMA

Dr. Michael Menhart  
Head of Economics, Sustainability and Public Affairs & Global Chief Economist, Munich Re

Isabella Pfaller  
Member of the Supervisory Board of Directors of Encavis AG, Hamburg

Dr. Norbert Rollinger  
(Vice-Chair of the ICIR Advisory Board)  
CEO, R+V Versicherung AG

Prof. Dr. Christian Schlag  
Dean, Faculty of Economics and Business, Goethe University Frankfurt

Prof. Dr. Wolfram Wrabetz  
Honorary Professor at Goethe University and Representative of the Federal State of Hesse for the Insurance Sector
The ICIR Team

Prof. Dr. Alexander Ludwig
Director, ICIR
Chair of Public Finance and Macroeconomic Dynamics

Prof. Dr. Helmut Gründl
Professor
Chair for Insurance, Insurance Supervision and Insurance Regulation, sponsored by the German Insurance Association (GDV)

Bettina Mathis-Kupczyk
Team Assistant
Chair for Insurance, Insurance Supervision and Insurance Regulation, sponsored by the German Insurance Association (GDV)

Marcel Beyer, M.Sc.
Scientific Coordinator at the International Center of Insurance Regulation

Nicolaus Grochola, M.Sc.
Research Assistant and Doctoral Student

Kar Man Tan, M.Sc.
Research Assistant and Doctoral Student

Gerrit Lüders
Ref. jur.
ICIR Research Portfolio

Sustainable Investments
Longevity Risk Management
Liquidity Risk in Life Insurance
Rising Interest Rates
Solvency II Review
Life Insurance and Market Risk
Asset Concentration Risk
Privacy & Transparency Concerns
Solvency II Reports
Public Finance and Retirement Planning
Insurance Law
Supervisory Law
Contract Law
Insurability of Pandemic Risk
Current Research
Publications

Insurance Economics
Publications by Prof. Dr. Helmut Gründl

Responsible investments in life insurers’ optimal portfolios under solvency constraints, accepted for publication in:
Zeitschrift für die gesamte Versicherungswissenschaft (with Sebastian Schlüter and Emmanuel S. Fianu)

„Nachhaltige Kapitalanlagen in optimalen Portfolios von Versicherungsunternehmen unter Solvency II“
Third party funding project by the German Association for Insurance Studies (Deutscher Verein für Versicherungswissenschaft) (with Sebastian Schlüter and Emmanuel S. Fianu)


Public Finance, Macroeconomic Dynamics, Retirement Planning
Publications by Prof. Dr. Alexander Ludwig


**PUBLICATIONS**

**Insurance Law**

*Publications by Prof. Dr. Manfred Wandt*

**Gesetzliche Schuldverhältnisse**, 11. Aufl. 2022, 604 S.


**Editorship**


Münchener Kommentar zum Versicherungsvertragsrecht (zusammen mit Langheid), Großkommentar, 3. Aufl., 4-bändig, 2022 ongoing.

Tobias Gerigk, *Die Organvergütung von Versicherungsunternehmen nach Solvency II*, Versicherungswissenschaften an der Universität Frankfurt am Main Bd. 43, 2022, S. 539.

Dreher/Wandt, Nachhaltigkeit und Versicherungsaufsicht – Solvency 2 der Rechtsanwendung 2021, Versicherungswissenschaften an der Universität Frankfurt am Main Bd. 44, 2022, S. 95.

VersR - Zeitschrift für Versicherungsrecht, Haftungs- und Schadensrecht.

**PRINCIPLES OF REINSURANCE CONTRACT LAW (PRICL), 2019 **ongoing (Hrsg. zusammen mit Helmut Heiss, Universität Zürich, und Martin Schauer, Universität Wien)
ICIR Working Papers

Helmut Gründl


Comparing insurance decisions from testing disease severity versus frequency, Working Paper, Goethe-Universität Frankfurt, October 2022 (with Kar Man Tan).


Higher-Order Income Risk over the Business Cycle (with Christopher Busch), Supplementary Appendix, 2020, Revise and resubmit: International Economic Review.

Finance and Inequality: A Tale of Two Tails (with Ctirad Slavik, Alexander Monge-Naranjo, Faisal Sohail), 2019, Working Paper 2020-044A

Alexander Ludwig

Climate Change Mitigation: How Effective is Green Quantitative Easing? (with Raphael Abiry, Marien Ferdinandusse and Carolin Nerlich), 2022, CEPR DP17324

Who Saves More, the Naïve or the Sophisticated Agent ICIR Working Paper Series No. 38 (with Max Groneck and Alex Zimper), 2021, CEPR

Evaluating the Effectiveness of Policies Against a Pandemic (with Christian Alemán, Christopher Busch and Raul Santaeulálía-Llopis), 2020.
EDUCATION
STUDIES. LECTURES. SEMINARS.
Curriculum
Insurance Economics and Regulation

Summer Term 2022

Master Program

Lecture
Asset and Liability Management in Insurance Companies
Prof. Dr. Gründl

Lecture
Insurance and Finance
Prof. Dr. Thimann

Bachelor Program

Lecture
Finanzen 3 (Corporate Finance)
Prof. Dr. Gründl

Lecture
Versicherungswirtschaft: Grundlagen, Sparten, Produkte und Vertrieb
Dr. Bierbaum

Seminar
European Insurance Regulation
Prof. Karel Van Hulle

Seminar
Changing Business Models of Insurance Companies Due to Internal and External Influence Factors
Dr. van den Brink

Winter Term 2022/2023

Master Program

Seminar
Selected Topics in Insurance Regulation
Prof. Van Hulle

Seminar
Versicherungstechnologie und ihre Grenzen
Prof. Dr. Nickel-Waninger

Bachelor Program

Seminar
Changing Business Models of Insurance Companies Due to Internal and External Influence Factors
Dr. van den Brink

Winter Term 2022/2023

Master Program

Doctorate and Ph.D. Programs

Macroeconomics and (Social) Insurance

Seminar
Topics in Macroeconomics and Public Finance
Prof. Dr. Ludwig

Seminar
Topics in Macroeconomics and Public Finance
Prof. Dr. Ludwig

Bachelor Program

Seminar
Private and Social Insurance in Macroeconomics
Prof. Dr. Ludwig

Winter Term 2022/2023

Doctorate and Ph.D. Programs

Lecture
Topics in Macroeconomics and Public Finance
Prof. Dr. Ludwig

Lecture
Mathematical Methods
Prof. Dr. Ludwig, Dr. Kaas
**Curriculum**

**Insurance Law**

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**Summer Term 2022**

**Kolloquium**

Deutsches und Europäisches Versicherungsvertragsrecht: Einführung in das Privatversicherungsrecht  
Prof. Dr. Wandt

**Lecture**

DUDF - Diplôme Universitaire de Droit Français, Professoren der Université Lumière Lyon II – französisch  
Prof. Dr. Wandt

**Exam**

ERASMUS France - DUDF  
Prof. Dr. Wandt

**Workshop**

Fact Finding Mission: Kooperation der fachbereiche Rechtswissenschaften der Goethe-Universität Frankfurt und der University of Namibia  
Prof. Dr. Wandt, Prof. Dr. Salger

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**Winter Term 2022/2023**

**Colloquium**

Deutsches und Europäisches Versicherungsvertragsrecht: Einführung in das Privatversicherungsrecht – 2 SWS  
Prof. Dr. Wandt

**Seminar**

Versicherungsschutz in unruhigen Zeiten: Naturkatastrophen, Pandemien, Terror und Krieg  
Prof. Dr. Wandt

**Lecture**

Willem C. Vis International Commercial Arbitration Moot (Schiedsverfahrensrecht)  
Prof. Dr. Wandt, Prof. Dr. Zekoll

**Tutorial**

Tutorien zu Zivilrecht III a (Deliktsrecht)  
Prof. Dr. Wandt
Policy Publications

ICIR Blog

08/2022  
Pension reserves for civil servants in Germany  
Stefan Walter

08/2022  
Überlegungen zur Versicherbarkeit von Pandemierisiken  
Helmut Gründl and Hato Schmeiser

05/2022  
Why an Ageing Population Doesn’t Mean Soaring Inflation  
Daniel Harenberg & Alexander Ludwig

05/2022  
Climate Change Mitigation: How Effective is Green Quantitative Easing?  
Raphael Abiry, Marien Ferdinandusse, Alexander Ludwig and Carolin Nerlich

05/2022  
In the interest of insurance customers: Solvency II must remain risk-based  
Helmut Gründl

04/2022  
Rentenversicherungsrealitätsverweigerung  
Alexander Ludwig

04/2022  
Ukrainekrise und ein mögliches Gasembargo  
Alexander Ludwig

04/2022  
In the interest of insurance customers: Solvency II must remain risk-based  
Helmut Gründl

04/2022  
Staatsfinanzen in Anbetracht der Mega-Trends Klimawandel und Bevölkerungsalterung, ifo Schnelldienst  
Alexander Ludwig

08/2021  
Mindestrente: Absicherung gegen Altersarmut und notwendiger Baustein für weitere Reformen, DIW Aktuell 72  
Johannes Geyer, Peter Haan and Alexander Ludwig

Other Policy Publications
Policy and Research Activities

Prof. Dr. Helmut Gründl
Member of the Board of the German Association for Insurance Studies, Berlin (until March 2022)
Member of the “Insurance Advisory Board” ("Versicherungsbeirat") of the German Financial Services Supervisory Authority (BaFin)
Member of the ECB Working Group on “Two-sector system-wide stress testing”
Annual meeting of the German Association for Insurance Studies (Deutscher Verein für Versicherungswissenschaft), online, Program Chair of paper presentations in insurance economics, 2022
Editorial Board Member of the "Review of Managerial Science"

Prof. Dr. Alexander Ludwig
Editorial Board Member Journal of Demographic Economics and Journal of Pension Economics and Finance
Consultant: Alte Leipziger & Hallesche: Member of the Board of Scientific Advisors
Deutsche Bundesbank
Research Grants:
Spokesperson and Principal Investigator, DFG Research Unit: "Macroeconomic Implications of Intra-Household Decision Making"
Principal Investigator, SUSTAINWELL (Sustainable Welfare: Rethinking the roles of Family, Market and State) with Grant Agreement 101095175, funded by the European Union's Research and Innovation Programme Horizon Europe (call HORIZON-CL2-2022-TRANSFORMATIONS-01)

Prof. Dr. Manfred Wandt
Organizer of the annual „Karlsruher Forum zum Versicherungsrecht, Haftungs- und Schadensrecht”
DFG-research project „Prinzipien des Rückversicherungsvertragsrechts” (principles of reinsurance contract law) (2nd funding period by DFG)
D-CH-Collaborative Project in cooperation with Universität Zürich
Board Member German Association for Insurance Studies (Deutscher Verein für Versicherungswissenschaft) (deputy chair)
Head of the German department and member of the Presidential Council of the International Association of Insurance Law/ Association Internationale de Droit des Assurances (AIDA)
Member of the Editorial Board of the „Zeitschrift für die gesamte Versicherungswissenschaft“ (ZVersWiss)
General editor of „Zeitschrift für Versicherungsrecht, Haftungs- und Schadensrecht“ (VersR)
Co-supervisor of the Frankfurt Team for the Willem C. Vis International Commercial Arbitration Moot Court
Director of the double diploma on German and French law with the University of Lyon II
Conferences, Presentations and Moderations

Prof. Dr. Helmut Gründl

“Auswirkungen der anhaltenden Niedrigzinsphase auf das Versicherungswesen”
Presentation at the Insurance Committee of IHK Frankfurt (November 2021)

Video-Podcast on the research project „Nachhaltige Kapitalanlagen in optimalen Portfolios von Versicherungsunternehmen unter Solvency II” (February 2022)

“Testing disease severity versus disease frequency and implications for insurance purchasing”
Finance, Insurance and Accounting Research Seminar at University of Hamburg (July 2022)

Executive Education:
“Grundlagen des Risikomanagements unter Solvency II”
Lecture at the German Insurance Academy (Deutsche Versicherungskademie (DVA))

Research presentations at annual meetings of DVFVW, ARIA and EERIA (April, August, September 2022)

Prof. Dr. Alexander Ludwig

Society for Economic Dynamics (SED), Madison (USA) (June 2022)

Annual Conference of the Verein für Socialpolitik (VfS), Basel (September 2022)

20 Years of MEA and SHARE Conference, Munich (July 2022)


Workshop: “Economics and Pandemics in the XXI Century”, Barcelona (September 2022)

Seminars:
- University of Amsterdarn
- DIW, Berlin
- UAB, Barcelona
- EUI, Florence

Prof. Dr. Manfred Wandt

Annual meeting of the German Association for Insurance Studies (Deutscher Verein für Versicherungswissenschaft), online, organization and moderation of the Insurance Law Day (March 2022)

Karlsruher Forum 2022 „Zivilrecht in und für Krisen”, organization and direction (February 2022)

Lecture University of Salzburg: „Nachhaltigkeitsregulierung und Offenlegungspflichten im Versicherungsbereich, (June 2022)

Laudatio for Theo Langheid, University of Salzburg, (June 2022)

DFG-workshop Principles of Reinsurance Contract Law, Bad Homburg (July 2022)
Facts and Figures

Digital Insurance Forum 22-I
March 22
228 Participants
40 Countries

Digital Insurance Forum 21-III
November 21
202 Participants
38 Countries

Digital Insurance Forum 22-II
June 22
152 Participants
34 Countries
Digital Insurance Forum Events

08.11.2021
InsurTech enabled business models – Sustainable regulatory responses

Panelists:
Jörg Asmussen, German Insurance Association, CEO
John Carolin, B3i, CEO
Fausto Parente, EIOPA, Executive Director

Moderator:
Monica Mächler, Zurich Insurance Group AG, Member of Board of Directors; ICIR, Chair of Advisory Board

31.03.2022
Recovery and Resolution: Open Issues

Panelists:
Jörg Asmussen, German Insurance Association, CEO
Petra Hielkema, EIOPA, Chairperson

Moderator:
Helmut Gründl, Goethe University Frankfurt, Chair for Insurance, Insurance Supervision and Insurance Regulation

14.06.2022
Satellite data, Blockchain, Parametric Insurance: How we can use technology to protect subsistence farmers from climate risks

Speakers:
Stefan Sperlich, Hannover Re, Head of Structured Reinsurance Business North America & Head of Digital Business Accelerator P&C
Lorenz Kemper, Hannover Re, Data Scientist & Opportunity Developer at Digital Business Accelerator P&C

Moderator:
Helmut Gründl, Goethe University Frankfurt, Chair for Insurance, Insurance Supervision and Insurance Regulation
Introducing the forum and its overall discussion points, Monica Mächler highlighted the importance of InsurTech in relation to the entire insurance value chain, including distribution, underwriting and many other activities. From the perspective of John Carolin, the CEO of B3i, the InsurTech company’s idea is to enable frictionless risk transfer by enabling an ecosystem that allows innovation along the value. Many problems in the industry arise not within the boundaries of individual companies, but within the interactions amongst themselves. Jörg Asmussen, the CEO of the German Insurance Association, went on to describe the difficulties InsurTech startups face, the majority of which stem from acquiring insurer licenses due to high capital and expertise requirements. According to a survey, common uses of InsurTechs include loud solutions such as exploration into blockchain, and increased cooperation between market players, with a particular growth in cooperation with outside industries.

Still, the core business model of insurance has remained unchanged. This is due to there being no inherent tendency towards a ‘winner takes all’ attitude with respect to risk coverage. There is great potential for further development of tech-enabled markets, but there is a precondition of acquiring the correct regulatory and supervisory framework. Regulators and supervisors should be evolving alongside the insurance industry; they should maintain high consumer protection standards but should be innovation-friendly to support new solutions. InsurTechs, then, are paving the way for evolution, but less so for a revolution. Regulators and supervisors must therefore evolve alongside the development of the insurance market. The speed of the tech evolution, however, is incompatible with the lengthy process required to revise and create regulative legislation.

On the subject of standalones, a differentiation between InsurTechs where the customer is insured and InsurTechs where the customer is the insurer was made clear. The former is more likely to evolve into stand alone companies – but only after having partnered with incumbents in order to acquire core capacities – whilst the latter is far less likely to partner with incumbents as ownership can often taint them.

The panel then discussed the importance of technology within the insurance market. Technological development will push the incumbent under the pressure of the start-up, which can boost value chain efficiency. Efficiency will be a key driver, meaning supervisors need to be more attentive to evolution. The key starting point to this must be consumer satisfaction, and the awareness that technology brings both opportunities and risks. In terms of easing regulatory hurdles for InsurTechs, the capital requirement is unlikely to be lowered and the areas in which entry barriers could be lessened have yet to be defined.

Although technology has the potential to significantly reduce administrative burdens, the most important aspect of the evolution is customers. The digitally native customer will expect insurance to change; decentralised finance, for example, is a response to financial services not being consumer-centric. So, the changing of consumer behaviours will ultimately determine what the right breakthrough technologies are to enable insurance products to meet their needs.
Insurance Recovery and Resolution: Open Issues

Summary
As moderator of the Digital Insurance Forum, Helmut Gründl opened by highlighting the importance of continuing to build a democratic European house and introduced the focus of the day: the EU Commission’s proposal for Insurance Recovery and Resolution (the IRRD). He outlined the main goals of the proposal, including the protection of policyholders and public funds by minimising reliance on government-financed bailouts, before bringing to the forefront questions that need to be addressed before the proposal be transposed into legislation.

Petra Hielkema, Chairperson of EIOPA, then spoke about the importance of such legislation and the tools needed to make it effective. The first tool, Hielkema explained, should be a comprehensive framework including cooperation and coordination; the second, preventive planning to ensure risks are managed effectively and efficiently; the third, the creation of resolution authorities to work alongside supervisory bodies whilst avoiding conflicts of interest. Objectives, she continued, include policyholder protection, the maintenance of financial stability, the continuation of critical functions, and the protection of public funds. She highlighted the importance of conditions for resolution, such as the conclusion that the institution is either failing or likely to fail, a public interest test, and an assessment concluding that resolution will lead to a better outcome than liquidation.

Jörg Asmussen, CEO of the German Insurance Association GDV, took a more critical stance. It would be welcome to see the aims outlined, he said, but that the proposal itself needs considerable improvement. The main problems outlined included: an overreach of the planning requirements, especially 70% for resolution planning is too far-reaching from a risk perspective as well as in comparison with international standards of the FSB and the IAIS, inconsistencies of the IRRD with Solvency II which, as he stated, is fit for purpose, a lack of specifics for the insurance sector, and the tension between a harmonised and a national framework.

The panel then moved onto a discussion on potential improvements. Emphasis was placed on the need for a risk-based approach as to determining recovery and resolution triggers, as well as issues on harmonisation. Hielkema expressed disappointment that insurance guarantee schemes (IGS) hadn’t been included in the directive proposal, whilst Asmussen – although agreeing that a more harmonised consumer protection in a digital world was necessary – highlighted the different roles of resolution (linked to public interest) and IGS (linked to policyholder interest), and the importance of not undermining national provisions proven to be fit for purpose.

Regarding the proposal’s new resolution authorities, their independence was singled out as key. Early in the process, there should be close cooperation between those in the resolution authority and those who understand the business, but once beyond Solvency II’s remit, very clear rules are required to ensure an independent resolution authority. One of the most important questions is: how can policyholders be best protected? Policyholders should be helped to find a new insurer with the comparable product for the comparable price.
Helmut Gründl opened the discussion with a mention of the war in Ukraine, explaining that the threat of famine resulting from the impacts of such a war is closely linked to microinsurance, which – with blockchain technology – could open up a myriad of opportunities. Dr. Stefan Sperlich of Hannover Re explained that the insurance group is involved in Lemonade’s micro insurance project not because of the profit potential, but because of the real potential to innovate. Dr. Lorenz Kemper, also from Hannover Re, emphasised the untapped potential of blockchain in the insurance industry. He pointed out the undeniable impacts of climate change, noting that the most extreme weather phenomena will hit developing countries with weaker insurance systems the hardest.

Traditional insurance in developing countries is not economical for subsistence farmers, and so something radically more automated is necessary: this is the backbone of the coalition’s project. Blockchain can be used to achieve this as the infrastructure to bring parametric insurance to life. The measurement of rainfall through satellite imagery, for example, could be transformed into data; an insurance contract (stating that a certain amount of rainfall in a certain amount of days would result in a certain automatic pay-out) could then be created. The right for a certain pay-out once a certain trigger is hit could be written on the blockchain ledger, making the process instant and transparent to the entire world.

Dr Kemper admitted that the initial risk would be poorly diversified as the project would only start in a couple of countries. Other issues included regulatory issues, which would require a long-term learning process in order to make sure the project would be compliant with regulatory requirements. The project is also still in early stages and so various questions remain unanswered, such as who is in charge of updating pricing over time and peer-to-peer investment. However, the project’s potential lies in the use of blockchain. In developing countries, trust between insurers and people is low. Blockchain changes this relationship, allowing for all rules to be predefined in code, for total transparency and for global participation in insurance.

The project’s coalition combines different skills to make this possible. Pula is experienced in insuring African countries, and would act as the intermediary between the insurers providing insurance and providing this insurance to the end users. Mobile phones can be used to write code and interact with blockchain, so the infrastructure to transfer crypto already exists. Dr. Kemper also highlighted the currency used would not have a high CO2 footprint, and that some currencies are less volatile, being pegged to real currency.

Dr. Sperlich explained that all founding members of Lemonade’s micro insurance project would be allocated tokens to give stability to the whole system regarding who are owners and members, and that the majority of these tokens should never leave the founding member consortium. Equally, members would respect business ethics and regulation. Dr. Kemper responded to disillusionment with blockchain, saying that it requires detailed understanding to really draw out its advantages and find the sweet spot, something that other projects have so far failed in.
On December 14 – 15, ICIR is holding its scientific conference on “The Private and Social Insurance Implications of Demographic Change” at Goethe University. The main idea of the conference is to bring together international scientific experts in the fields of insurance to discuss topics related to demographic change from a finance and insurance perspective on the one hand, and from a macroeconomics social insurance perspective on the other. We have put together an excellent lineup with 12 internationally renowned experts who will give presentations on their current research. The topics include optimal retirement planning and provision at the individual level in light of life cycle risks such as employment, productivity and health risks, the descriptive analysis of existing social insurance institutions and their reform needs around the globe, and questions related to the optimal design of private and social insurance in light of ongoing demographic change processes. In addition, we provide a platform for junior researchers who will present their research on the topics of the conference in a poster session.
Private and Social Insurance Implications of Demographic Change
Program

Wednesday, December 14

08:30: Arrival and Coffee
09:00 – 09:10: Welcome

Session 1: Optimal Retirement Investment
09:10 – 10:00: Raimond Maurer (Goethe University Frankfurt) "How Should Retirement Portfolios Take Social Security into Account? Incorporating Lifetime Income Payouts in Defined Contribution Plans"
10:00 – 10:50: Abigail Hurwitz (Hebrew University of Jerusalem) "Is One Plus One Always Two? Insuring Longevity Risk While Having Multiple Savings Accounts"
10:50: Coffee Break

Session 2: Insurance Design
11:10 – 12:00: Olivia Mitchell (University of Pennsylvania) "Money-Back Guarantees in Individual Retirement Accounts: Are They Still Good Policy?"

12:00 – 12:50: Christian Hellwig (University of Toulouse) "Dynamic Mirrlees Taxation with Non-Separable Preferences"
12:50 – 13:50: Lunch

Poster Session:
Pavel Brendler (University of Bonn) "Rising Earnings Inequality and Optimal Income Tax and Social Security Policies"
Chris Busch (LMU Munich) "Income Dynamics of Couples: Correlated Risks and Heterogeneous Within-Household Insurance"
Irina Gemmo (HEC Montreal & ETH Zürich) "Determinants and Life Cycle Effects of Survival Ambiguity"
Jonna Olsson (University of Edinburgh) "Health Dynamics and Heterogeneous Life Expectancies"
15:20: Coffee Break

Session 3: Poverty
15:40 – 16:30: Daniela Grunow (Goethe University Frankfurt) "Couples' Ideological Pairings and the Sharing of Work"
16:40 – 17:20: Ayse Imrohoroglu (University of Southern California) "Homelessness"
18:00: Workshop Dinner (by invitation)
Thursday, December 15

**Session 4:**
Demographic Change and Retirement

09:00 – 09:50:
Axel Börsch-Supan (Technical University Munich)
“Social Insurance Implications of Demographic Change: Examples and Policy Options for France and Germany”

09:50 – 10:40:
Eric French (Cambridge University)
“Labor Supply and the Pension Contribution-Benefit Link”

10:40: Coffee Break

**Session 5:**
Macroeconomics, Demographic Change and Health Insurance

11:00 – 11:50:
Dirk Krueger (University of Pennsylvania)
“The Medical Expansion, Life-Expectancy and Endogenous Directed Technical Change”

11:50 – 12:40:
Anton Braun (Atlanta FED)
“Why Aging Induces Deflation and Secular Stagnation”

12:40 – 13:40: Lunch

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**Session 6:**
Health and Long-Term Care Insurance

13:40 – 14:30:
Cheng Wan (ETH Zurich)
“Optimal Portfolio Choice with Longevity, Critical Illness Insurance and Long-Term Care Insurance”

14:30 – 15:20:
Martin Boyer (HEC Montreal)
“How Much Should We Value Future Long-Term Care Health Services

**Workshop Organizers:**

Helmut Gründl
(Goethe University Frankfurt and ICIR)

Alexander Ludwig
(Goethe University Frankfurt and ICIR)
ICIR AT EERIA
Nicolaus Grochola at the First Annual Conference of the Eastern European Risk and Insurance Association (EERIA)

From 15 to 17 September 2022, the First Annual Conference of the Eastern European Risk and Insurance Association (EERIA) took place in Ohrid, North Macedonia. I had the opportunity to represent the ICIR and present my research at the first conference of the newly created EERIA. EERIA is an association that aims to promote science and research in the field of risk and insurance in Europe. The international conference had about 70 participants from 16 European countries and the United States. During the opening ceremony, several speakers including Petra Hielkema (Chairperson of EIOPA) and Randy Dumm (President of the American Risk and Insurance Association and Professor at Temple University) congratulated EERIA on its founding. Karel van Hulle, Professor at Goethe University and KU Leuven and former ICIR executive board member, held the keynote speech, discussing the role of insurance during and after the Covid-19 pandemic. He highlighted that pandemic and climate change risks are systemic risks. As a potential solution to the insurability of pandemic risks, Prof. van Hulle suggested parametric insurance and private partnerships. Because we live in a risky world with an unpredictable future, he assumes that the insurance industry will be challenged by further “black swans”, i.e. unexpected and improbable future events with significant effects.

In three research sessions, scholars presented their current academic papers. I participated in the conference as an ICIR representative and presented a joint project with Helmut Gründl, Mark Browne and Sebastian Schlüter entitled “Exploring the Market Risk Profiles of U.S. and European Life Insurers”. The paper deals with interest rate risk and credit risk and shows that the influence of interest rate movements on stock returns is over 60% larger for U.S. than for European life insurers. After the presentation, the audience discussed the empirical insights and the policy implications. I am thankful for the opportunity to travel to Ohrid and generate new research ideas and to connect with other scientists and policy-makers. For the closing event of the conference, we undertook an excursion to the monastery of Saint Naum at Lake Ohrid.
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