DWS RESEARCH INSTITUTE

May 2020 / Responsible Investing

How European insurance regulators are responding to climate risk

Efforts to measure, stress test and manage climate risks among insurers are accelerating

Summary

In 2016, the UN Secretary General at the time laid down five challenges to the insurance industry[1]:

i. Measure the carbon footprint of investment portfolios by 2020 and decarbonize investments
ii. Double investments in sustainable energy by 2020
iii. Develop auditable standards in the insurance industry that incorporate the Sustainable Development Goals (SDGs)
iv. Work with the UN to ensure that early warning and action systems are made available to the most vulnerable countries by 2020
v. Provide the most vulnerable with greater access to risk transfer mechanisms

A report from the UN Environment Inquiry into a Sustainable Financial System[2] concluded that "In its role as risk manager, risk carrier and investor, insurance is at the heart of a sustainable financial system.". Yet, Mark Carney, former Governor of the Bank of England, stated[3] the insurance companies should be wary of "cognitive dissonance" where climate risks that may be well managed by underwriters, may be ignored by portfolio managers.

According to several industry assessments[4], insurers are largely failing in their efforts to achieve many of these ambitions mentioned above. DWS's analysis of 35 major European listed insurance companies found only 15 companies with an A or B score in our ESG rating (which combines four different data providers) and only four companies with an A or B score in our SDG rating. However, in September 2019 a number of major European insurance companies became founding members of the Net Zero Asset Owners Alliance which has a strong focus on engagement. This may assist in boosting sustainable energy investments, which still fall short of the UN Secretary General's 2016 ambitions as do incorporating metrics relating to the SDGs.

While European insurers tend to lead the global insurance industry when it comes to ESG, efforts among European insurance supervisors and regulators to improve climate risk management standards have been accelerating over the past few years. This is being undertaken to address the exposure of the insurance sector to the three channels of climate risk namely physical risk, transition risk and liability risk, which affect both sides of an insurer's balance sheet, **Figure 1**.

In this article, we examine the various approaches being adopted by insurance regulators across the European Union. We find that the methods by which supervisors and regulators are approaching climate risk management can be classified into five categories[5]:

a. Integrating climate factors into supervisory risk rating frameworks to assess traditional financial risks such as

[1] Ban urges insurance industry to take leadership in climate change response (April 2016); ShareAction/Asset Owner Disclosure Project (May 2018). Got it covered? Insurance in a changing climate
[2] UNEP Inquiry, June 2017. Green Finance Progress Report
[3] Bank of England (September 2015). Breaking the Tragedy of the Horizon – climate change and financial stability
[4] ShareAction/Asset Owner Disclosure Project (May 2018). Got it covered? Insurance in a changing climate
[5] Bank for International Settlements (November 2019). Turning up the heat – climate risk assessment in the insurance sector

market risk, credit risk, liquidity risk, operational risk and reputational risk

b. Strengthening disclosure of climate-related information by insurers through voluntary or mandatory public disclosure requirements
c. Integrating climate into routine supervisory tools such as own risk and solvency assessment (ORSA)
d. Integrating climate risk into financial stability assessments, and stress tests
e. Undertaking forward-looking climate scenario analysis

> *"Please do not underestimate the power of what you, the insurance industry, can do in the solutions space – you hold it within your hands to plan the sustainability transition in an orderly way."*
>
> **Christiana Figueres,**
> **architect of the Paris Agreement[6]**

With the Sustainable Development Goals, including the climate crisis, representing both macro and micro risks and investment opportunities, the above statement from Christiana Figueres in 2015 is very apt. We would add that insurance regulators should also not underestimate their power and responsibility to help strengthen the insurance sector's key roles as societal risk manager, risk carrier and investor in a way that accelerates action on the climate crisis.

To assess ESG and SDG alignment within the insurance sector, the DWS's ESG Engine combines multiple ESG data sources to create ratings on ESG factors, the SDGs among others with underlying data available to all our portfolio managers. **Figure 2** shows the distribution of scores by number of companies for thirty-five major European insurance companies. Of these, a majority (88%) have an ESG score between A and C. When examining their ESG score with their business revenue aligned to the SDGs, only 20% are rated at C or above.

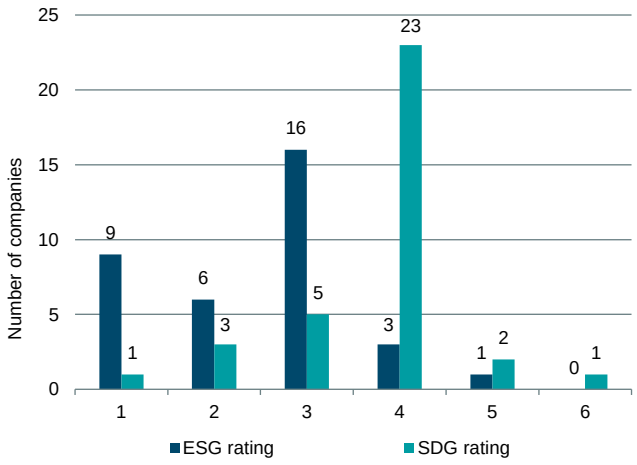
FIGURE 1. THE POTENTIAL IMPACT OF CLIMATE RISK ON THE BALANCE SHEET OF INSURERS

	Underwriting	Investment
Physical risks	_ Pricing potential arising from changing risk profiles to insured assets and propery (non-life), changing mortality profiles and demographic trends (life and health) _ Claims risk arising from unexpected confluence of extreme events such as multiple category 4 or 5 hurricanes _ Strategic/market riks arising from changing market dynamics such as uninsurability of property	_ Risks arising from impacts of physical climate events and trends on assets, firms and sectors affecting profitability and cost of business, leading to impacts on financial assets and portfolios such as debt and equity
Transition risks	_ Strategic/market risks arising from contraction of market demand in certain sectors such as coal, oil, marine transport _ Strategic/market risks arising from market trends, technological innovation, and policy changes related to climate change such as carbon pricing, energy efficiency regulations and affecting products and services demanded by consumers	_ Risks arising from market, policy, technology and social changes affecting profitability and cost of business of firms and sectors such as energy, industry, transport and agriculture, then leading to impacts on financial assets and portfolios, such as debt and equity
Liability	_ Liabilty risks arising from insurers liable on the basis of insurance provided	_ Risks arising from litigation relating to the consideration of climate change in investment decision making or inadequate disclosure of climate risks

Source: International Association of Insurance Supervisors (July 2018). Issue paper on climate change risks to the insurance sector

[6] UNEP FI (June 2015). Insurance 2030. Harnessing insurance for sustainable development

FIGURE 2. ASSESSING SUSTAINABILITY OF THIRTY FIVE MAJOR EUROPEAN INSURANCE COMPANIES



Source: DWS January 2020 based on members of the STOXX Europe 600 Insurance

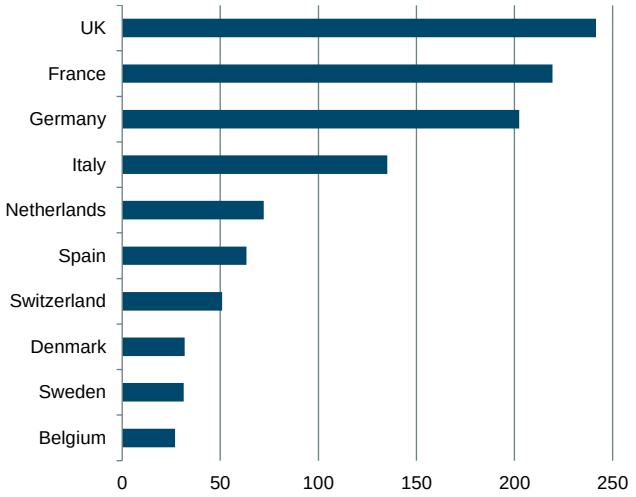
To assess the main regulatory changes and opinions across the European insurance sector we examine developments within the European Union, such as the Capital Markets Union and Sustainable Finance Action Plan. We also take into account the position of the European Insurance and Occupational Pensions Authority, (EIOPA), and the national regulators in the UK, France, Germany and Italy which combined account for just over 60% of the European insurance market[7], when measured by insurance premiums, **Figure 3**.

Sustainability on a pan-European level

The Sustainable Finance Action Plan introduces not just a taxonomy on what can be defined as sustainable economic activities, but also clarifies investor duties whereby asset owners, such as insurers, will now be obliged to disclose how they integrate ESG criteria and specifically climate risk into their risk processes. In addition, amendments to MiFID II and the Insurance Distribution Directive (IDD) must now include ESG considerations into the advice that investment firms and insurance distributors offer to individual clients[8].

In 2015, under the Capital Markets Union Action Plan, amendments were suggested to change the Solvency II framework to encourage insurance companies to invest in 'qualifying infrastructure projects'. In enabling insurers to hold less capital for such investments, the aim is to encouraging investment flows into asset class geared towards promoting sustainability. These changes subsequently were put into regulation by the European Commission in 2016 and has since then found many adopters in the insurance space.

FIGURE 3. INSURANCE PREMIUMS BY COUNTRY IN 2018
(EUR billion)



Source: Insurance Europe (September 2019). European Insurance – Key Facts

At an international level, the Task Force on Climate-related Financial Disclosure calls for the disclosure of clear, comparable and consistent information on the risks and opportunities posed by climate change[9]. In 2018, UNEP FI announced it was partnering wth 16 of the world's largest insurers to develop a new generation of risk assessment tools and help implement the recommendations of the TCFD[10]. In the same year, EIOPA received a request from the European Commission for an opinion on sustainability within Solvency II, where sustainability is mainly focused on climate change-related risks. The focus is on the integration of sustainability in Pillar 1 of Solvency II, namely the integration of sustainability into the valuation of assets and liabilities, investment and underwriting practices.

According to EIOPA, around 70% of European insurers have currently implemented practices to include sustainability risk in their investments or indicated they are planning to do so in

[7] Insurance Europe (September 2019). European Insurance – Key Facts
[8] Capital Markets Union: Making it easier for insurers to invest in the real economy (March 2019)

[9] TCFD (June 2019). Task Force on Climate-related Financial Disclosures: Status Report
[10] UNEP FI (November 2018). Working with 16 global insurers to better understand risk and implement TCFD recommendations

the next three years[11]. When making investment decisions, insurers reported that sustainability risks and specifically physical and transition climate risk will differ according to asset class. For example, physical risk will directly affect real estate portfolios as well as sovereign bond exposures, particularly in emerging markets. For transition risk, this is seen as mainly affecting listed equities, fixed income and infrastructure investments and the sectors identified as the most impacted are those with or exposed to carbon intensive activities.

As part of its public call for evidence, EIOPA has not received sufficient evidence that sustainable investments have a substantially different risk profile than non-sustainable investments. Hence, EIOPA does not see any reason for introducing different capital charges for 'green' and 'brown' investments under the risk-based Solvency II framework. However, the lack of evidence for different risk profiles is also partly driven by lack of market data. This is especially true for real estate investments. Additionally, EIOPA acknowledges that the medium- to long-term impacts of climate change cannot be fully captured by capital charges which are designed to reflect risks over a one-year time horizon. Therefore, insurance companies may use complementary tools such as scenario analysis and stress testing (under Pillar 2 of Solvency II) to capture the impact of climate risk over a longer time period.

Consequently, most national supervisors do not prescribe specific requirements or expectations on the approach insures should take to quantify climate risks. However, climate risk or broader ESG risks are increasingly being prescribed as part of Enterprise Risk Management frameworks. This is particularly true in the UK and Italy, which have specific and explicit requirements that cover climate risks[v].

EIOPA submitted its opinion to the European Commission in September 2019 and these will be taken into account in the preparation of its report on the Solvency II Directive, which is due by 1 January 2021. In the remainder of this article we examine the particular approaches being adopted by the regulators in the four largest insurance markets in Europe.

Germany's Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and sustainability risks

Guidance from the German regulator around sustainability and ESG has been moving at an accelerating pace over recent years. At the beginning of last year, the German Insurance Supervision Act (Versicherungsaufsichts-gesetz – VAG) specifies, with regard to investment, the extent to which institutions for occupational retirement provision (IORPs) are to address ESG issues in their system of governance, for example in risk management and in the Own Risk and Solvency Assessment (ORSA). IORPs are required to be transparent to the public, supervisors and customers about whether and how they take ESG issues into account in their investment policies.

In September 2019, BaFin published a guidance notice on dealing with sustainability risks for all supervised entities including insurance companies, banks and asset managers[12]. From BaFin's perspective, sustainability risks are environmental, social or governance events or conditions, which if they occur have or may have potentially significant negative impacts on the assets, financial and earnings situation, or reputation of an entity.

BaFin considers sustainability risks to be a component of existing risk types such as credit, market, liquidity, operational, and reputational risk. In addition, BaFin believes that all ESG risks derived from the 17 UN Sustainable Development Goals require consideration.

In order to handle sustainability risks, entities should either develop stand-alone strategies or supplement their existing business and risk strategies accordingly. Sustainability risks must be integrated into the existing business organisation (processes, dedicated sustainability unit, risk control function) and risk management process.

[11] EIOPA (April 2019). EIOPA's technical advice on the integration of sustainability risks and factors in the delegated acts under Solvency II and IDD

[12] Bundesanstalt fuer Finanzdienstleistungaufsicht (September 2019). Guidance notice on dealing with sustainability risks

For insurance companies, BaFin considers the following risk management areas to be particularly affected by sustainability risk:

_Asset-liability management
_Investment risk management
_Underwriting and reserving
_Reinsurance and other insurance risk-mitigation techniques
_Reputational risk management

Methods for managing and/or limiting sustainability risks within investments include:

_Exclusion criteria/limits
_Positive lists
_Best-in-class approach
_Standards based screening/ESG integration
_Impact investing
_Engagement

Additionally, BaFin suggests the use of ESG ratings as an addition to credit ratings when making investment decisions.

UK's Prudential Regulatory Authority (PRA) and managing the financial risks from climate change

The PRA's expectations as to how insurers should manage climate risks is set out in the PRA's Supervisory Statement[13] issued in April 2019. It is relevant to all UK insurance, reinsurance firms and banks as to how these firms should:

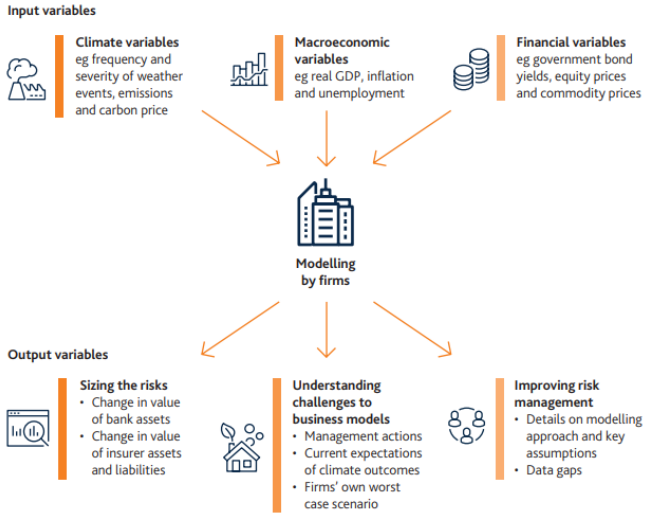
(i) Embed the consideration of the financial risks from climate change in their governance arrangements
(ii) Incorporate the financial risks from climate change into existing financial risk management practice
(iii) Use long-term scenario analysis to inform strategy setting and risk assessment and identification
(iv) Develop an approach to disclosure on the financial risks from climate change.

The PRA therefore expects to see evidence that the board and its relevant sub-committees are exercising effective oversight of risk management and controls. This means firms should identify, measure, monitor, manage and report on their exposure to those channels of climate risk outlined in Figure 2. Firms should also use scenario analysis and stress testing to inform the risk identification process and understand the short- and long-term financial risks to their business model form climate change. As part of the Own Risk and Solvency Assessment (ORSA), insurers should include at a minimum all material exposures relating to the financial risks from climate change and an assessment of how firms have determined the material exposure(s) in the context of their business.

Once climate risks are identified as financially material, the PRA expects firms to evidence how they will mitigate these financial risks and to have a credible plan or policies in place for managing or reducing the concentrations of these exposures. For Solvency II, insurers should consider whether there is an excessive accumulation of financial risks from climate change, particularly those likely to crystallise via the transition risk factor in their investment portfolio and to consider how to mitigate these risks.

Insurers have existing requirements to disclose information on material risks in their Pillar 3 disclosures as required under Solvency II. In addition to meeting these existing disclosure requirements, insurers should consider whether further disclosures are necessary to enhance transparency on their approach to managing the financial risks from climate change. At the end of last year, the Bank of England issued a discussion paper setting out its proposal for the 2021 Climate Stress Test[14], as shown in **Figure 4**

FIGURE 4. FIRMS INPUTS AND OUTPUTS FOR THE 2021 BIENNIAL EXPLORATORY SCENARIO (BES)



Source: PRA (December 2019). Climate stress test discussion paper

[13] Prudential Regulatory Authority (April 2019). Supervisory Statement (SS3/19). Enhancing banks' and insurers' approaches to managing the financial risks from climate change

[14] Life Insurance Stress Test 2019 (June 2019). Scenario Specification, Guidelines and Instructions

The 2021 climate stress test will build upon the PRA's supervisory expectations for managing climate risks, published in April 2019, and the 2019 Insurance Stress Test which included the first indicative assessment of how equity and bond valuations might be affected by climate risks and opportunities in three different scenarios.

An extract of the exploratory 2019 climate stress test factors for transition risk across the fuel extraction and power sectors are shown in **Figure 5**. In this stress test, the impact on corporate bonds was assumed to be 15% of the equity value correction. The stress test included three scenarios of physical risk valuation changes and impacts across several major sectors of the economy.

FIGURE 5. IMPACT ON INVESTMENTS FROM TRANSITION RISKS FOR LIFE AND GENERAL INSURERS

Sector		Scenario A: Sudden disorderly transition. Minsky Moment. Illustrative potential impact in 2020	Scenario B: Orderly transition to well below 2°C. Illustrative potential impact in 2050
Fuel extraction	Coal	-45%	-40%
	Oil	-42%	-38%
	Gas	-25%	-15%
Power	Coal	-65%	-55%
	Oil	-35%	-30%
	Gas	-20%	-15%
	Renewables (incl. nuclear)	10%	20%

Source: PRA (June 2019). Life insurance stress test 2019

In its press release, the Bank of England states that given the unique nature of climate-related financial risks, the exercise will differ from traditional stress tests in several areas. These include multiple scenarios to explore different climate policy pathways, time horizons stretching to 2050 and beyond, expectations of granular, counterparty-level risk modelling across sectors and geographies, and participation from both banks and insurers.

To ensure it is effective in light of these challenges, the Bank issued the 2021 Climate Stress Test discussion paper to consult relevant stakeholders on the design of the exercise. The Bank wishes to engage with a wide range of stakeholders, including financial firms, their customers, scenario modellers, and climate scientists, to ensure that the Climate Stress Test is as informative as possible for both participants and regulators.

France's L'Autorité de contrôle prudentiel et de résolution (ACPR) and the Energy Transition Law

The Energy Transition Law, passed in 2015, sets different goals and requirements for France to align to a greener economy, for example reducing the share of nuclear in the country's energy mix to 50% by 2025 and increasing the share of renewables[15].

As it relates to the financial sector, Article 173 of the 2015 law, requires asset owners and specifically insurers to disclose the following:

i) The description of the general approach to taking into account ESG criteria in investment policy; and where appropriate risk management
ii) A description of how underwriters take into account ESG criteria
iii) A reference to possible adherence to a charter/code/initiative, or obtaining a label on the recognition of ESG criteria
iv) A general description of the procedures in place to identify the risks associated with ESG criteria and the exposure of its activities to these risks

For investors with AUM or consolidated balances sheets below EUR500 million, obligations are to describe their methods for incorporating ESG factors into investment strategy. Those above EUR500 million must also describe means employed to support the Energy and Ecological Transition.

From this year, the financial regulator ACPR will subject banks and insurers to climate change stress tests, using two or three climate change scenarios. According to an ACPR questionnaire conducted in 2018 encompassing 139 insurers representing 80% of French insurers' investments, 94% of respondents stated they know the carbon footprint on all or part of their asset portfolios, with predominantly small non-life undertakings typically falling in the remaining category[16].

[15] Banque de France-ACPR (April 2019). French insurers facing climate change risk

[16] Banque de France-ACPR (November 2019). Climate change: which risks for banks and insurers?

The same survey found that the exposure of French insurers' assets' to climate transition risks appeared significant at around EUR250 billion or approximately 10% of assets[xiv]. These were issued by entities from sectors exposed or potentially exposed to transitions risks with only a small exposure to physical climate risks.

The PACTE law, introduced in 2019, focuses on the requirement of French companies to take into consideration social and environmental issues. From a savings perspective, the law requires insurance companies having to offer at least one ESG labelled fund among their product offering from the beginning of this year. It will therefore make it mandatory to offer responsible products in saving plans and life insurance[17].

Italy's Istituto per la Vigilanza sulle Assicurazioni (IVASS) and ESG considerations in the insurance sector

In July 2018, the Italian insurance regulator IVASS issued regulation 38/2018 that ensures Italian insurance companies take good consideration of environmental and social issues in the activities of insurance undertaking. In particular, with regard to environmental and social issues, Article 4 (2) of the Regulation 38/2018, IVASS required the Board of Directors to take these into account in its strategic assessments. The text highlights that "the controls relating to the corporate governance system cover all the types of corporate risk, including those of an environmental and social nature, generated or suffered and in consideration of the overall solvency needs of the company. Responsibility is assigned to the corporate bodies, each according to their respective competences. The organisation of the company's activities and the tasks and responsibilities of the corporate bodies and functions must be clearly defined".[18]

A new focus and attention has been introduced in terms of the remuneration policy within an insurance company.
In fact both Articles 41 and 47 of the regulation specify that the Board of Director may introduce new remuneration systems, for the variable component, based on financial and non-financial indicators. Both Articles can be considered as a step forward in terms of a new risk approach and a new corporate responsibility: all the relevant persons and board members, can be eligible for variable compensation only if the performance they obtained can be translated in tangible results in terms of environmental performance, and long-term results.

For the time being there is no a specific description in terms of environmental performance, but insurance companies are looking at ways of measuring this metric. The insurance companies acknowledge their responsibility in this transition period in which they need to modify their investment approach both for insurance products and for their own investments. Another substantial challenge for the insurance sector in Italy is to increase ESG awareness and knowledge for the end client.

From theory to practice

As we have seen, the overarching principles relating to climate risk from EIOPA have found their way into actual local regulation in different shapes and forms across Europe. However, certain regulators are taking a more serious and prescriptive standpoint than others.

The decision on how to approach ESG issues across the industry and Europe currently mainly lies with the insurers themselves as the regulatory guidance is more principles' based. ESG criteria have an undeniable impact across multiple segments of the insurance business model, from underwriting to investments. Insurers therefore have to take several decisions when embarking on their ESG journey.

1. What level of engagement do they want to take?
2. What data sources do they want to rely on?
3. How best to implement change across the various business functions?

We have experienced that the size and complexity of an insurer, but also the product suite typically drive the engagement question and implementation in different ways. Moreover, management commitment, be it for marketing purposes or true ESG leadership, often seems to be the primary driver to engaging with the topic of ESG.
The smaller the insurance company, the more likely it is to be working with exclusion lists or best-in-class approaches and taking a more quantitative approach. Likewise, we see a trend materialising specifically in the unit linked insurance product industry as end clients and regulation demands a clear quantitative assessment of the units in question with

[17] PACTE, the Action Plan for Business Growth and Transformation (April 2019)

[18] IVAAS Regulation No. 38 (July 2018)

regard to the Insurance Distribution Directive (IDD). On the other hand larger, more globally active and more sophisticated insurers tend to adopt a qualitative approach and actually engage with issuers financing the ESG transition.

Conclusion

Insurance companies, especially those based in Europe, are taking steps to address climate risks on the asset side of their balance sheet. This has involved, amongst other things, new governance structures, understanding the exposure of their investments to physical and transition climate risk, divestment programmes in (high) carbon assets and increasing exposure to green investments.

These are likely just the first steps of an industry being cajoled and coerced on an ESG journey. In earlier years, insurers might be able to close their eyes and wait for this trend to pass, but the impact of climate change, as possibly the most visible part of ESG, seems to have finally rendered ESG, and climate risk therein, a permanent consideration. We expect the focus on ESG will become further entrenched, not least due to the accelerating pace of regulatory pressure, to a point where the whole industry incorporates ESG considerations across the entire value chain, whether from their own valition or as compliant actors.

The main challenges insurers face with respect to climate risk relate to the lack or reliability of climate-specific data, the relatively small pool of green investment opportunities and the inherent challenges around forecasting climate change risks. Lastly, regulatory uncertainty and lack of a single approach across Europe, let alone worldwide, increases the complexity for larger insurance companies.

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