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Finance Watch response to the Federal Insurance Office Request for Information on the Insurance Sector and Climate-Related Financial Risks

Question 2.

Please provide your views on FIO's three climate-related priorities and related activities, particularly with regard to whether there are alternative or additional priorities or activities that FIO should evaluate regarding the impact of climate change on the insurance sector and the sector's effect on mitigation and adaptation efforts.

With regard to FIO's climate-related priority to assess any gaps in the current regulation of insurers, we would like to highlight the urgent need to look specifically at the capital requirements rules for fossil fuel assets in the US prudential rules for insurers.

In order to ensure financial stability of the insurance sector, and the wider US financial system, it is key that insurance companies in the US, and globally, are sufficiently capitalized to withstand the risks associated with insurers' substantial exposures to fossil fuel assets. The 40 largest U.S. insurers have over $450 billion invested in coal, oil, and gas companies, and insurers worldwide provide the fossil fuel industry with insurance coverage with estimated annual premiums of US$17.3 billion.[1]

By providing financing or insurance to the fossil fuel industry, the US insurance sector is exposing itself to financial stability risks stemming from fossil fuels becoming stranded due to the transition to a carbon-neutral economy. The carbon budget of the planet is only 495 gigatonnes. The already explored fossil fuel reserves amount, however, to 2910 gigatonnes of CO2.[2] These numbers indicate that 84% of the explored reserves will have to be left unexploited – abandoned – in order to limit the global temperature rise to 1.5°C. This will lead to the market value of fossil fuel companies diminishing accordingly and to a loss of funds invested in such assets, exposing insurers invested in these assets to potentially huge losses on their balance sheets. The Financial Times Lex team conducted an analysis of the potential financial fallout from stranded assets. It shows that the financial fallout will be an estimated drop of nearly US$890 billion if the 1.5°C warming target is pursued.[3]

While existing fossil fuel assets run a high risk of becoming at least partially stranded during their lifetime due to the facts elaborated above, new fossil fuel assets deriving from additional exploration and production face an even higher likelihood of becoming entirely stranded. Recent reports by the International Energy Agency (IEA) confirm this point. In its report from May 2021, the IEA states that if we want to meet the 1.5 degree warming target, investments in new fossil fuels must stop immediately as the share of fossil fuels in energy supply has to fall drastically from almost four-fifths today to slightly over one-fifth.[4] The IEA underlined this point again in another publication from October 2021 which highlights that "In the

[1] Insure Our Future website

[2] Carbon Tracker Initiative website

[3] FINANCIAL TIMES, "Lex in depth: the $900bn cost of 'stranded energy assets'", February 2020

[4] INTERNATIONAL ENERGY AGENCY (IEA), "Net Zero by 2050 - A Roadmap for the Global Energy Sector", May 2021, 222p.

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NZE (Net-Zero Emissions scenario), the rapid drop in oil and natural gas demand means that no fossil fuel exploration is required and no new oil and natural gas fields are required beyond those that have already been approved for development."[5]

In addition to transition risks, the insurance industry is also exposing itself and exacerbating physical and disruption risks by financing fossil fuels, endangering the sector's stability. Severe weather-related events such as floods, storms and wildfires are increasing in intensity and frequency due to climate change. This will increase damages and losses to businesses, homes, infrastructure and other assets covered by property and casualty insurance, ultimately resulting in higher insurance claims. In addition, more extreme weather events, such as heatwaves, could lead to unexpected higher mortality rates and the spread of pandemic risk (e.g. malaria, dengue). Research shows that a chronic rise in temperatures and humidity are a breeding ground for vector-borne diseases, increasing the likelihood and severity of epidemics and pandemics, which can result in higher life and health insurance claims.[6] If there is a sudden unexpected rise in insurance claims due to the reasons just highlighted, this can result in a risk to the solvency position of an insurance company if it does not have the reserves needed to meet sudden and unexpected liabilities on its balance sheet. If this affects several insurers, it can have systemic implications.

As highlighted by the International Association of Insurance Supervisors (IAIS) and the Sustainable Insurance Forum (SIF), insurers may face difficulty in accurately pricing insurance contracts covering physical climate risks as the risks can change in non-linear ways.[7] We are already witnessing some of the physical risks outlined above having consequences for insurers' balance sheets. Reports show that natural disasters already caused $3 trillion of losses over the last decade, which is $1.2 trillion higher than in 2000-2009, and cost insurers $845 billion in payouts.[8]

We very much welcome that the world's leading regulators, including FIO, acknowledge the link between climate change and financial stability and the pressing need to address it. The measures and recommendations provided so far by the international regulatory community range from stress tests, scenario analyses to better ESG disclosures. While we welcome these developments, these proposed measures will not be able to address the situation in a decisive way on their own, partly because of the difficulty of modelling the risks that climate change poses to financial stability.

For example, in order for climate stress tests to be able to derive any meaningful conclusions regarding the solvency of institutions, climate risks must be modelled. Quantifying these risks, however, proves extremely difficult, if not impossible, as they are forward-looking and subject to radical uncertainty by nature. The so-called climate stress tests we have seen so far (e.g. the recent so-called "2020 Climate Pilot Exercise" conducted by the French regulator ACPR) have amounted to scenario-based analyses looking at how financial institutions will fare in different climate change scenarios, but have not derived conclusions regarding the solvency of institutions. In addition, these exercises have assessed transition risk and, some of them, physical risk but

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[5] INTERNATIONAL ENERGY AGENCY (IEA), "World Energy Outlook 2021", p. 100.

[6] WATTS, N., et al., "The 2019 report on The Lancet Countdown of health and climate change", The Lancet, 2020, p. 394.

[7] IAIS, SUSTAINABLE INSURANCE FORUM, "Issues Paper on Climate Change Risks to the Insurance Sector", July 2018, 81p., p. 14.

[8] INSURE OUR FUTURE, "2020 Scorecard on Insurance, Fossil Fuels and Climate Change", December 2020, 27p., p. 8

not the biggest of all climate change-related financial risks – a risk we describe as disruption risk. Disruption risk is the risk of large-scale disruption to the world as we know it, including to the economy and financial system. In its worst manifestation, disruption risk can lead to a world which is uninsurable, leading to insurance companies going out of business as well as the economy, and with it the financial system, collapsing. One manifestation of disruption risk that we are already witnessing is the insurance protection gap. The impacts of climate change are making the world increasingly uninsurable, leaving in particular vulnerable groups (minorities, underserved communities, etc.) exposed to financial losses from climate change-related natural catastrophes. The acceleration of physical and disruption risks stemming from the financing of fossil fuels by insurers is making this protection gap worse.

In the best of cases, the development and implementation of precise methods to measure climate change-related financial risks will take years, by when the planet's carbon budget will be nearly exhausted. Time is running short as only 10 to 15 years remain before the planet's carbon budget is exhausted. Therefore, we simply do not have the luxury of time to wait for good measurement methods of climate change-related financial risks before taking decisive action.

Better ESG disclosures, on their own, will also not result in the kind of decisive and immediate impact we need to avert a looming financial crisis. Transparency measures alone, however indispensable, will be ineffective by themselves in ensuring that financial institutions, including insurers, take account of climate change considerations in their investment and underwriting activities. For one, the consideration of the impact of business decisions, including investment and underwriting decisions, on the environment and society is a question of public interest. However, it is not in the nature of market forces, including insurance companies, to take into account on a voluntary basis the public interest in their business decision-making. Insurers, like all financial market players, "finance the world as it is" and, confronted with two profitable projects, one sustainable and one non-sustainable, provide capital to both projects, regardless of their impacts on climate change.

In addition, as shown by numerous studies and data, financial actors are under the impression that the severest impacts of climate change will be in the long-term and are therefore not material to the shorter time horizons of financial actors. They believe that climate change-related risks do not need to be taken into consideration now but only sometime in the future and that there remains ample time for them to adapt. More and better availability of data about climate change-related risks associated with investee companies and potential insurance clients alone will not be sufficient to change this.[9] A survey of 2000 investors conducted in 2020 by HSBC, for example, found that just 10% viewed the TCFD climate-related disclosures as a relevant source of information.[10] This has been confirmed by a recent report from ShareAction which shows that insurers largely ignore the systemic risks of climate change when taking investment, and in particular underwriting decisions, with US insurers performing particularly badly in international comparison.[11]

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[9] See for example: AMELI, N., DRUMMOND, P., BISARO, A., GRUBB, M., and CHENET, H., "Climate finance and disclosure for institutional investors: why transparency is not enough", October 2019; CAMPIGLIO, E., MONNIN, P., and VON JAGOW, A., "Climate Risks in Financial Assets", November 2019 or CHRISTOPHERS, B., "Environmental Beta or How Institutional Investors Think about Climate Change and Fossil Fuel Risk", February 2019.

[10] HOOK, L., and VINCENT, M., "Green business reporting rules at risk of pale response", Financial Times, November 12 2020.

[11] SHAREACTION, "Insuring Disaster: How the EU can improve the insurance framework 'Solvency II'", August 2021.

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Therefore, in our view, a precautionary approach is needed to effectively ensure that the insurance sector is resilient to climate change-related financial risks. This entails insurers building up capital buffers to cover the future climate change-related losses and adequately pricing the risk of their fossil fuel financing. To achieve this, capital charges for fossil fuel exposures should be increased to reflect the high micro- and macroprudential risks associated with such exposures. The capital insurers must currently have in place for exposures to fossil fuels is inconsistent with the high risk profile of these assets and there is a need to bring capital requirements rules for insurers in coherence with itself as a risk-based tool, treating "comparable risks in a comparable manner". Not doing so equates to a situation where insurers are undercapitalized to meet the risks outlined above and in a situation which effectively equates to subsidizing fossil fuel finance. This, in turn, risks the emergence of another financial crisis – this time, however, potentially much worse than the one in 2008.

Finance Watch laid out in a report from July 2021, "Insuring the Uninsurable"[12] which easy tweaks to existing capital requirements rules are needed to ensure insurance sector resilience to climate change risks. The report focuses on the EU regulatory rulebook for insurers (Solvency II), however the logic and approach is also applicable for US insurance rules:

- Existing fossil fuel assets should be treated the same way as exposures deemed highly risky under existing capital requirements rules in the US prudential rulebooks, meaning the same capital charge applied currently to equity and bond investments deemed highly risky should be applied to investments in existing fossil fuel assets.

- A capital charge of 100% (full equity funding) should be applied to investments in new fossil fuel assets, namely new fossil fuel exploration and production – both for bond and equity investments. This is necessary given that new ventures speed up climate change-related risks and are at a high risk of becoming fully stranded as highlighted by the IEA. For the same reasons, a 100% loss should be assumed when calculating the technical provisions required to settle the insurance and reinsurance obligations arising from coverage of policyholders taking part in new fossil fuel ventures.

This precautionary approach put forward by Finance Watch has garnered broad-based global support. It has been recognized by a panel of 50 banks, NGOs, academics, regulators and investors from the United States, Canada, the European Union and United Kingdom as the top-ranked policy proposal at the nexus of finance and climate change. In a report published on 13 April[13] , the international panel coordinated by the Climate Safe Lending Network in partnership with UNEP FI, identified the proposal by Finance Watch as the most impactful feasible solution to tackle the link between climate change and financial instability.

Question 3.

What specific types of data are needed to measure and effectively assess the insurance sector's exposures to climate-related financial risks? If data is not currently available, what are the key challenges in the collection of such climate-related data? In your response, please provide your views on the quality, consistency, comparability, granularity, and reliability of the available or needed data and associated data sources.

[12] NORWOOD, P., "Insuring the uninsurable", Finance Watch Report, July 2021.

[13] Financial Stability in a Planetary Emergency, Climate Safe Lending Network, April 2021

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As pointed out in our answer to Question 2, climate change-related financial risks, in particular physical and disruption risk, are very difficult to quantify and measure.

Climate change is a complex phenomenon subject to radical uncertainty.[14] As highlighted in "The green swan", a publication under the auspices of the Bank of International Settlements (BIS) on financial stability and climate change, "Climate-related physical and transition risks involve interacting, nonlinear and fundamentally unpredictable environmental, social, economic and geopolitical dynamics that are irreversibly transformed by the growing concentration of greenhouse gases in the atmosphere."[15] Given the profound uncertainties involved, no single model or scenario can provide a full picture of the potential macroeconomic, sectorial and firm-level impacts caused by climate change.

For example, the IPCC considers a set of 222 scenarios compatible with the 1.5°C or 2°C global warming target, plus 189 scenarios representing a variety of non-desirable warmer futures.[16] Worse yet, these models "only represent global emission pathways, not the multiple variations at regional and national levels that interact with each other and are the responsibility of local and national governments, central banks and supervisors. These are simply the multiple scenarios of climate pathways, which have not even been mapped on to highly complex interconnected modern financial systems — that would engender yet more potential scenarios…."[17]

As pointed out in our answer to Question 2, given the difficulty of quantifying climate change-related financial risks, in particular disruption risk, measures or recommendations centered on or relying on the measurement of climate change-related financial risks are prone to have serious shortcomings and would need – in the best case scenario – many years to perfect. Therefore, results of exercises such as the results of what the French regulator ACPR calls "the first climate pilot exercise covering the banking and insurance sectors" are questionable with regard to their ability to give a complete view of the situation and foster meaningful action, this notwithstanding the merit they have of raising the awareness of financial institutions to the threat that climate change represents for them and the difficulty of measuring its impact with any degree of precision.[18]

In light of the above, there is a need to complement the current approach which is focusing on looking for ways to measure and monitor climate change risks on the financial system with a precautionary approach. This would translate in ensuring that the Pillar 1 capital requirements rules for insurers adequately take into account the high risk profile of fossil fuel exposures. Not doing so would lead to a situation where we are running the risk of exposing the world to a financial crisis which could be far worse than the one in 2008.

Question 4.

[14] CHENET, H., RYAN-COLLINS, J., VAN LERVEN, F., "Finance, climate-change and radical uncertainty: Towards a precautionary approach to financial policy", Ecological Economics, Vol. 183, February 2021, 14p.

[15] BOLTON, P., DESPRES, M., PEREIRA DA SILVA, L., SAMAMA, F., SVARTZMAN, R., "The green swan – Central banking and financial stability in the age of climate change", January 2020, 107p., p. 1.

[16] CHENET, H., RYAN-COLLINS, J., VAN LERVEN, F., "Finance, climate-change and radical uncertainty: Towards a precautionary approach to financial policy", Ecological Economics, Vol. 183, February 2021, 14p., p. 3.

[17] Ibid, p. 3.

[18] AUTORITE DE CONTROLE PRUDENTIEL ET DE RESOLUTION (ACPR), "A first assessment of financial risks stemming from climate change: The main results of the 2020 climate pilot exercise", May 2021, 61p.

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What are the key factors for the insurance sector in developing standardized, comparable, and consistent climate-related financial risk disclosures? In your response, please discuss whether a global approach for disclosure standards needs to be adopted domestically for insurers. Please also address the advantages and disadvantages of current proposals to standardize such disclosures, such as those set forth by the Task Force on Climate-Related Financial Disclosures or the NAIC's Insurer Climate Risk Disclosure Data Survey.

Climate-related financial risks are systemic in nature and therefore need a global approach, both in terms of prudential regulation and disclosure. If this does not happen these risks may be shifted rather than dealt with, leaving the global financial system as whole vulnerable.

With the necessity of a global disclosure approach in mind, there is a vital need for the international community to approach insurers' climate-related reporting standards with a coherent materiality approach. Two conceptions prevail in that respect: one founded on 'outside-in' financial materiality (so-called 'single materiality'), and one founded on the combination of both single materiality and of 'inside-out' environmental materiality dubbed 'double materiality'. Different standards exist or are being developed internationally which all have the potential and the credibility of becoming internationally recognized standards. Some of them, such as the standards set forth by the Task Force on Climate-Related Financial Disclosures (TCFD) are founded on single materiality, but other standards such as those currently deployed by the European Union's European Financial Reporting Advisory Group (EFRAG) are founded on double materiality. Given the nature of the feed-back loop between insurance companies and climate change whereby insurance companies enable climate change by investing in and insuring fossil fuel companies ('inside-out' environmental materiality), knowing that climate change will destabilize the financial sector, and therefore insurance companies ('outside-in' financial materiality), it is essential for reporting standards to be founded on double materiality if we want financial supervisors to be in a position to conduct their financial stability mandate. In any case, developing international standardized, comparable, and consistent climate-related financial risk disclosures is essential: given the global nature of climate change, the global nature of the insurance business (whether as investor or as insurer), the global dimension of the largest insurance groups, and the global interconnection between insurance companies worldwide, only comparable and consistent international standards can be useful, to the exclusion of any domestic standards, regardless of the importance and the size of the economy of a particular nation, in this instance the U.S.A.

Question 6.

What are the likely advantages and disadvantages of a verified, open-source, centralized database for climate-related information on the insurance sector? Please include in your response the types of information, if any, that may be most useful to disseminate through such a database and the key elements in the development and design of such a database.
An open-source centralized database can help to facilitate access to comparable, qualitative and reliable financial and sustainability information for investors, other financial market participants, regulators, academia and civil society. If well designed and implemented such a database holds the potential for improved access to corporate and product disclosures, which would encourage sustainable investments.

A centralized database should prioritize inclusion of company financial, sustainability and company law disclosures, as well as product-related disclosures relevant for retail investors. It

should allow voluntary disclosures by companies outside the scope of existing disclosure requirements.

The most effective way to organize the database would be as a public-private partnership operated by all US federal supervisory authorities, with a leading role played by the SEC. All relevant stakeholders should be involved in the governance with retail investors, academia and civil society on an equal footing with the financial industry. The bulk of funding for a database should come from financial industry participants who will be the biggest economic beneficiaries. Finally disclosures for the database should be done in a structured and machine-readable format and be accessible without need for any specialized software. This is an important part of the database being open-source as it ensures data can be widely used and processed by different stakeholders.

Question 7.

How should FIO identify and assess climate-related issues or gaps in the supervision and regulation of insurers, including their potential impact on financial stability? In your response, please address insurance supervision and regulations concerning: (a) Prudential concerns, (b) market conduct regarding insurance products and services, and (c) consumer protection. In addition, please discuss how FIO should assess the effectiveness of U.S. state insurance regulatory and supervisory policies in addressing and managing the climate-related financial risks with regard to the threat they may pose to U.S financial stability, including identifying (1) the major channels through which climate-related physical, transition, and/or liability risks may impact the stability of the U.S. insurance market, and (2) the degree to which insurers' business models could be affected by each category of risk and the relevant time horizons for such effects.

Given the scale of climate-related financial risks and the fact that they present a systemic threat a harmonized regulatory approach at federal level is needed. Divergent approaches at State level could undermine action in this area and reduce the effectiveness of any measures to address these risks.

In order to manage enforcement of any regulatory action taken the FIO would need to ensure regular, structured dialogue with State insurance commissioners and the NAIC. These exchanges allow commissioners and the FIO to collectively increase their knowledge of the best practices and pitfalls that can arise in the supervisory process. This can then ensure that necessary adjustments to regulatory approaches can be made to ensure enforcement.

Question 8.

Please identify the key structural issues that could inhibit the ability of insurance supervisors to assess and manage climate-related financial risk in the insurance sector (e.g., accounting frameworks, other standards). What barriers could inhibit the integration of climate-related financial risks into insurance regulation?

The first key challenge for supervisors to overcome is the lack of ability to assess climate risk through modelling. As highlighted in our answers to questions 2 and 3, it is currently not possible to quantify climate risk. Historical data cannot be used for modelling and the scenario-analysis

currently being conducted by supervisors across the world are not sufficient to conduct proper climate change stress tests (i.e. leading to conclusions on possible capital shortfalls) or provide conclusions for regulatory action.

It is important to note that while this is a barrier it is by no means insurmountable. Sufficient evidence exists to confirm the need for regulatory action on climate-related financial risks and shows that this action is needed swiftly. Given the issues with taking a quantitative approach, efforts need to focus on a precautionary approach as outlined in our answers to questions 2 and 3.

The second key challenge for supervisors is the necessity, explained in our response to question 4, to work on the basis of international standards (as opposed to domestic standards) to be able to monitor and understand the evolution of the climate change-related risks incurred by the insurance industry. Global standards need to be developed and used by supervisors in order to monitor and respond to a global problem (the impact of climate change on the insurance sector and its resilience) facing an insurance industry operating globally.

Question 9.

What approaches used by other jurisdictions or multi-national organizations should FIO evaluate that would help inform it about existing supervisory and regulatory issues and gaps concerning climate-related financial risks? Please describe these approaches, including their advantages and disadvantages, as well as available data sources on these approaches.

There are important relevant approaches and processes underway in both the EU and the UK at this point in time. A number of recent reports published as part of ongoing supervisory and regulatory process on climate-related financial risks have identified regulatory issues and gaps. They relate to the timing constraints for action to be taken in this area and to the need to ensure these risks are properly captured by capital charges.

The UK Prudential Regulation Authority's recently published report on 'Climate-related financial risk management and the role of capital requirements' kicks off the fastest process to date to come to proposals on the way forward in this area. This is in itself recognizing the small window for action in this area and the need for regulatory action to move quickly.

The report also states that "capital can be used for the consequences, not the causes of climate change", effectively indicating the need for prudential regulation and capital charges to be used as tools to manage risk, not as policy tools. The report also finds that "climate-related financial risks are partially captured by current frameworks, but there are gaps", recognizing the need to explore how capital charges should be adjusted to reflect climate-related financial risks.

The Network on Greening the Financial System's October 2021 publication 'Scenarios in Action: a progress report on global supervisory and central bank climate scenario exercises' comes to the conclusion that "methodological limitations may also impair the usefulness of climate exercises to understand the need for targeted prudential policies to tackle climate risks, and to consequently calibrate possible prudential instruments". It again identifies the limits of some first approaches to address climate-related financial risks and points to the need to re-calibrate capital charges.

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Finally the recent ECB publication 'The challenge of capturing climate risks in the banking regulatory framework: is there a need for a macroprudential response?' deals with the macroprudential dimension of the topic. It affirms that the "current capital buffers do not capture climate-related financial risks owing to underlying risk weights that do not yet reflect climate-related risks to the full extent". This assertion directly identifies the current gap that exists in the calibration of capital charges.