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Addressing Climate Change Belongs in Insurance Companies' Boardrooms

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n its latest report,¹The Geneva Association offers new insights into the role of the industry as risk managers and investors in addressing climate change goals, targets and risks.² The study, which includes interviews with (and written responses from) 62 c-level executives of the global insurance industry, highlights how companies are considering climate change within their governance and strategy as well as measures being taken by the industry on liability and investment sides. The study brings focus to key external challenges and opportunities facing the insurance industry in scaling up its contributions. This article highlights some of the key findings and recommendations of the report.

RECENT DEVELOPMENTS AND TRENDS GLOBALLY

In recent years, globally, the focus of the climate change debate has evolved from being mainly a scientific, environmental, social responsibility, and humanitarian issue to becoming one of the core drivers of socio-economic development and risk management.

On the climate adaptation side, with rising socio-economic costs associated with extreme weather events, there is increasing evidence of a paradigm shift in governments' approaches, from "inaction" or "post-disaster reaction" towards a more comprehensive and integrated risk management framework, spanning the different sectors and layers of government. Importance of risk quantification and pricing, as well as ex-ante investments in disaster risk reduction and preventive measures is coming into focus. Empirical studies indicate that countries with a widespread market-based insurance coverage recover faster from the financial impacts of extreme events; it is the uninsured part of losses that drives macroeconomic costs. Governments are recognizing the role and benefits of a market-based insurance industry in carrying and transferring risk with a number of initiatives underway to expand insurance in existing and new markets (Geneva Association 2016, 2017). Yet, there is a large

and in some places widening protection gap, indicating that the benefits of risk transfer measures are not being harnessed to their full potential.³

Following the adoption of the Paris Agreement in 2015,⁴ there has also been a burst of initiatives and activities across a wide range of stakeholders to support the transition to a low carbon economy (mitigation side) (see Figure 1).⁵ Latest developments include, (i) growing wave of climate policy and regulations at national to local levels and across regions, although highly fragmented and in some cases conflicting subsidies and incentives;⁶ (ii) innovation in clean and green technologies, with some gaining noticeable market share; (iii) rising interest in green financing, efforts on the part of shareholders, asset managers, standard-setting bodies and rating agencies to reduce barriers to green investing; (iv) growing demand for low carbon commodities; and, (v) efforts to collect and avail reliable and consistent information as part of annual reporting to investors, lenders, insurers and other stakeholders.

In September 2015, Mark Carney, chairman of the G20 Financial Stability Board (FSB), in his historical speech at the Lloyd's of London, linked global financial stability and economic resilience to three types of climate change-related risks: physical risks, liability risks and transition risks (Carney, 2015).⁷ Subsequently, the FSB Task Force on Climate-Related Financial Disclosure (FSB-TCFD) was established to develop



Figure 1 Recent Developments Related to Transitioning to a Low-Carbon Economy

regulation	Technology	Financing and markets	Reporting and compliance
 The Paris Agreement Common but differentiated responsibilities result in policy fragmentation across countries and regions 2050:Net-zero emission target Different regional, national, local policies National decarbonisation targets being submitted, but pathways and implementation not clear Pricing carbon and carbon emission caps being considered/discussed in many jurisdictions Carbon tax vs. ETSs Subsidies and tax incentives Fossil fuels vs. green investments 	Green/clean technologies gaining market share • LED, solar, onshore wind, hybrid/electric cars New investments growing steadily, e.g. renewable energy Energy-smart technologies rising targets, e.g. energy efficiency	Shareholder sentiment favouring more climate action Increasing interest in green investment • Green investing coalitions: Blackrock, Goldman Sachs, Deutsche Bank Rise in green bond markets, although lacking proper monitoring Efforts to lower barriers to green investing • G20, EU-HLTF • Global Green Finance Committee (ICMA/GFMA) Rising trades of low-carbon commodities Rating agencies linking climate risk to credit ratings (companies	 Emergence of wide range of mandatory and voluntary frameworks Environmental and sustainability driven Highly fragmented depending on stakeholder Increased reporting not leading to enhanced transparency FSB-TCFD Effort of convergence towards coherent and consistent annual reporting of climate risks
*	*	sovereign, municipalities)	8
 Growing wave of climate policy and regulatory measures, but fragmented, with sketchy implementation pathways Fragmented sectoral approaches dominating 	 Growing opportunities in green and clean technology, although still risky and volatile 	 Need for pipeline of investable grade opportunities, asset classification, standardization, methodologies and expertise 	 Standard climate risk reporting—a potential game changer

recommendations for voluntary and consistent climate-related financial risk disclosures for use by companies to avail information to investors, lenders, insurers, and other stakeholders. Following the release of its recommendations in 2017, The G20 extended FSB-TCFD's work on the implementation of its recommendations.⁸ This could potentially be a game changer in the way publicly-traded companies report their climate risks and opportunities in their annual reporting.

Finally, emphasis on climate resilience and decarbonization of critical infrastructure is also rising as a top priority of some governments, not only to address climate change targets at scale but also in relation to their national security, economic development and trade agenda, (for example Canada and the European Union).

IMPLICATIONS FOR THE INSURANCE INDUSTRY

The interviews have revealed that addressing climate change is a priority of the majority of C-level executives. Climate change is making its way into companies' boardrooms as a core business issue with implications for governance and

institutional structures and processes, strategy, business development, risk management, investments, operations, and reporting.

Companies are increasingly considering the implications climate change (not only physical risks but also liability and transition risks), not just from an environmental and social responsibility lens, but as a core business issue. Currently there are three ways climate change is considered by companies' boards and C-level executives: (i) a core business issue with implications for governance, strategy, risk management, operations, and asset management processes; (ii) a sustainability issue but transitioning into core business; and, (iii) a sustainability and environmental issue. Figure 2 highlights some of the key actions companies are taking.

The insurance industry is part of the solution and plays a critical role in enabling economic resilience and fostering entrepreneurial pathways for addressing climate change goals and targets.

Figure 2

Climate Risk is Being Considered by Majority of the Board and C-Level Executives of the Participating Insurance Companies, in Three Ways



In summary,

- On the **liability** side, insurers are offering risk modeling and pricing expertise, as well as a variety of innovative and specialized risk transfer solutions to: (i) build financial resilience to impacts of extreme events; (ii) incentivize reduction of greenhouse gas (GHG) emissions; (iii) enable entrepreneurial pathways for green and clean technology from start-up to commercialization. The industry is providing regional risk pools and other specialized products and services to protect governments' budgets against the financial impact of major disasters. The industry is working to improve its products and services in areas such as business interruption, contingent business interruption and other risks associated with supply chain failures linked to climate and extreme events risks.
- On the **investment** side, the insurance industry is increasingly integrating climate change considerations in their investment strategies and processes. Various policies and approaches to investment strategies are being adopted. Environmental, Social and Governance (ESG) is emerging as the predominant methodology, but being implemented using a variety of different approaches.
- On the **operational** side, insurers are actively working toward reducing their carbon footprint.

The insurance industry wants to do more. However, the study has identified a number of external challenges, outside the scope of the insurance industry, that need to be addressed by various stakeholders, to enable the industry to expand its contributions on both the adaptation and mitigation sides.

The study has revealed that eight primary factors hinder the expansion of market-based insurance in high-, middle- and low-income countries:

- 1. Limited access to risk information and related risk pricing difficulties;
- 2. Public policy, regulatory and legislative issues;
- 3. Need for increased awareness about socio-economic benefits of insurance;
- 4. Need for stakeholder-relevant products and services;
- 5. Limited take-up of disaster insurance linked to post-disaster government hand-outs;
- 6. Weakness of domestic insurance market particularly in the rural areas and most vulnerable nations,
- 7. Regulatory barriers in some countries, which may hinder access to global reinsurance capacity; and

8. Scalability and sustainability of insurance programs and need for stronger public-private engagement and partnerships.

Interviews and our research has revealed that the scaling-up of green investments is inhibited by many factors linked to five key areas:

- 1. financing and market-related factors, such as lack of clear taxonomy and investable-grade green investment opportunities and,
- 2. need for financial and insurance regulations that encourage long-term investments,
- 3. fragmentation and in some cases contradictory climate change and sectoral-related policies and regulatory frameworks,
- 4. volatility in the green and clean technology markets and that in general, technology-related investment opportunities do not meet their investment criteria technology and
- 5. Data and transparency for informed investing—for example, factors such as a limited capacity of relevant markets to accommodate large-scale portfolio allocations, a need for well-defined asset classifications, fragmented climate policy and regulatory frameworks, and lack of data to support informed investing.

In general, insurers consider critical infrastructure as fundamental to scaling up socio-economic resilience to physical risks and transitioning to a low-carbon economy. They are underwriting critical infrastructure and willing to invest and expand coverage, but a number of challenges remain on both liability and investment sides.

The insurance industry is already underwriting critical infrastructure, and there is willingness to expand coverage, but a number of challenges remain. However, the extent to which insurers have been underwriting infrastructure risks varies from country to country. Some challenges identified are:

- limited consideration has been given in many countries to assessing impacts of natural hazards throughout the entire life cycle of critical infrastructure projects;
- limited incentives, especially for private operators, to increase resilience; and
- lack of access to high quality data to assess various risks associated with all phases of the project.



On the other hand, for insurers to invest in critical infrastructure, they require a stable, predictable regulatory and political framework, a pipeline of projects, and an efficient and liquid market.

SUMMARY AND RECOMMENDATIONS FOR THE WAY FORWARD

Building socio-economic resilience to the increasing impact of extreme weather requires preventive risk management and adaptive strategies. Transitioning to a low-carbon economy has profound socio-economic implications for many sectors, requiring investments in areas such as technology, critical infrastructure, labor training, trade, and public education.

Transitioning to a low carbon economy needs to be well-planned and it must follow a predictable path with strategic alignment across all layers of government as well as active engagement with the private sector and investors. Implementation will take time and may take even longer in some countries and regions, depending on existing policies and political frameworks. A complex network of stakeholders (e.g., governments, policy makers, regulators, standard-setting bodies and the private sector) are working through the growing number of adaptation and mitigation initiatives, but these efforts also remain fragmented. To achieve scale, the key barriers, opportunities and solutions need to be identified through more coordinated dialogue, engagement, and action among key stakeholders. The insurance industry is neither the polluter, nor the climate policy setter, but is a critical part of the solution.

As a global leader in risk management, the insurance industry is already contributing significantly to building socio-economic resilience to extreme events and climate risks. It is also supporting transitioning to a low-carbon economy through its underwriting business, investment strategies and active reduction of its carbon footprint. But, it wants to do more.

Addressing climate change at scale also provides opportunities for expansion of risk transfer solutions for building socio-economic resilience to physical risks, incentivizing GHG emission reductions and paving the pathways for green and clean technology development, from start-up to roll out. Building strong public-private partnerships is central to the success.

As institutional investors, insurers' investment strategy is liability-driven, constrained by regulations and driven by a number of internal and external factors (Asset-Liability Management, ALM). Insurers invest conservatively as they need to ensure that they remain solvent and can make their pay-outs to the policyholders with the highest probability at any time. Scaling-up of their green investments is inhibited by factors such as a limited capacity of markets to accommodate large-scale portfolio allocations, availability of pipeline of investable-grade opportunities that meet their criteria, a need for well-defined asset classifications and fragmented climate policy and regulatory frameworks.

Finally, the industry needs to manage its own climate risks (not only physical risks but also liability and transition risks) and develop capacities to integrate these considerations into its core business, through its governance, strategy, risk management, business development, underwriting, investments, operations as well as compliance and reporting activities.

The Geneva Association offers three recommendations for the way forward detailed in Figures (3a-c). Specifically:

Recommendation 1: Third-party stakeholders such as governments, policymakers, standard-setting bodies and regulators across sectors should work in a more coordinated fashion to address key barriers that hinder insurers from scaling up their contribution to climate adaptation and mitigation.

Recommendation 2: The insurance industry should continue to institutionalise climate change as a core business issue, expand its

Figure 3a Recommendation 1

Recommendation 1	Governments
Third party stake- holders such as governments, policymakers, standard setting bodies and regulators across sectors should work in a more coordinated fashion to address key barriers that hinder insurers from scaling up their contribution to climate adaptation and	 Identify and quantify socio-economic risks of climate change (with regular updates) and conduct cost-benefit analysis of possible measures to underpin climate risk management decision-making Develop comprehensive and integrated climate risk management plans that span all sectors of the economy and levels of the government Engage with and establish relevant public-private partnerships with the insurance industry for building socio-economic resilience to climate change Transitioning to low-carbon economy Policy setting, regulatory and standard setting bodies Develop clear "green" classifications for assets and financial products Support, promote, and enable the expansion of the pipeline of green investments and new investment tools Establish well-defined standards and methodologies to assess merits of green investments Governments Provide greater clarity on national decarbonisation plans and policies Develop consistent national sectoral, climate, financial and trade policies, regulatory frameworks and related incentives Discuss carbon pricing/trading policies with the goal of incentivizing and/or helping with the financing of a "well-managed" transition Ensure that the Nationally Determined Contributions plans are accompanied by clear capital raising plans Establish strong public-private partnerships and structures to enable private investing in the green sector
mugauon	Financial reporting and compliance authority bodies
	 Provide better information and consistent disclosure rules for all market participants
	Align regulations to enable green investments with a long-term view
	UNFCCC

Figure 3b Recommendation 2

Recommendation 2	Expand underwriting products and services for addressing the protection gap to natural
The insurance industry	hazards and physical risks of climate; reduce business risks associated with the complex green and clean tech value chain; and incentivize preventive measures and GHG reduction
institutionalias alimete	 Reduce carbon footprint for all aspects of business
institutionalise climate	 Institutionalise climate change as a core business issue
change as a core	 Establish governance mechanisms to address long-term climate risks and promote such approaches as the norm
its contributions towards	 Stay abreast of latest developments in stress testing and 2°C Scenario analysis, as well as of developments with the FSB-TCFD
building financial	Integrated climate risks into investment decisions
resilience to climate	Industry level
transition to a low-	 Proactively engage with governments to leverage the industry's value proposition to build socio-economic resilience to climate risks
carbon economy by collaborating with	 Support the development and advancements of forward-looking catastrophe risk models Promote the need for systematic collection and availability of publicly-funded environmental and socio-economic data
governments and other	Invest multilaterally in climate adaptation research
key stakeholders	 Promote the need for clear, coherent and consistent climate change policies and regulatory frameworks
	 Promote the need for "green" and "infrastructure" asset classification, expansion of pipeline of investable opportunities, standards and methodologies, reliable data and transparency and regulatory stability for long-term investments
	 Stay abreast of latest developments in stress testing and scenario analysis

Figure 3c Recommendation 3

Recommendation 3 Governments and the insurance industry should explore ways to support climate resilient	 Governments Ensure new infrastructure projects are climate resilient and decarbonized by setting clear policies, legislation and regulatory frameworks Reassess physical risks of existing public infrastructure and invest in retrofitting Join forces and consult with insurance industry to explore industry's potential contributions
and decarbonized critical infrastructure through the industry's risk management, underwriting and investment functions	Establish infrastructure as an asset class and support development of a market

contributions towards building financial resilience to climate risks and supporting the transition to a low-carbon economy by collaborating with governments and other key stakeholders.

Recommendation 3: Governments and the insurance industry should explore ways to support climate-resilient and decarbonised critical infrastructure, through the industry's risk management, underwriting and investment functions.

For more information and to access the full report, please go to: *bttps://www.genevaassociation.org/*



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- (2) The Geneva Association (2017) "The Stakeholder Landscape in Extreme Events and Climate Risk", By: Golnaraghi, M., Khalil, P. Available at: https://www .genevaassociation.org/sites/default/files/research-topics-document-type/pdf _public//stakeholder-landscape-in-eecr.pdf
- (3) The Geneva Association (2018) "Climate Change and the Insurance Industry: Taking Action as Risk Managers and Investors." By. Golnaraghi, M., Available at: https:// www.genevaassociation.org/.

ENDNOTES

- 1 The Geneva Association (2018) "Climate Change and the Insurance Industry: Taking Action as Risk Managers and Investors." By. Golnaraghi, M., Available at: https:// www.genevaassociation.org/.
- 2 We interviewed (and obtained written responses from) 62 CEOs, CROs, CUOs and CIOs of 21 primary insurance and reinsurance companies around the world. These included twelve primary insurers underwriting life and non-life (or both) policies and nine reinsurance companies. Of these 48% are headquartered in Europe, 28% in North America and the Caribbean, 19% in Asia and the Pacific and 5% in Central and South America. With respect to assets under management, 57% are under USD 100 bn, 19% between USD100 bn-200bn and 24% over USD200bn. As for premium volume, 53% with less than USD25b, 33% between USD25-50bn, and 14% over USD50bn.
- 3 According to AON Benfield only 36% of economic damages sustained from hurricanes Harvey, Irma and Maria were covered by insurance.
- 4 The Paris Agreement: https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf
- 5 For a list of stakeholders see Annexes 2 and 3 of the Geneva Association Report.
- 6 In the United States President Trump decided to pull the Federal government out of the climate change Paris Agreement, rolling back many of the programs and regulations established by President Barack Obama to reduce greenhouse gas emissions. However, this action has galvanized business leaders, investors, corporations, the state and local governments and top business leaders to come together under "America's Pledge" to find the pathway for America's transition to a low carbon economy. California governor Jerry Brown and the former New York City Mayor Michael Bloomberg founded "America's Pledge" following Trump's decision to pull the U.S. federal government out of the Paris Agreement.
- 7 In September 2015, Mark Carney, Chairman of FSB in his speech "Breaking the Tragedy of the Horizons", highlighted climate risks as (i) *Physical risks:* economic risks that could arise from direct and indirect impacts due to: (i) increasing severity and frequency of extreme weather events; and (ii) long-term shifts in climate; (ii) *Liability risks:* the impacts that could arise tomorrow if parties who have suffered loss or damage from the effects of climate change seek compensation from those they hold responsible; (iii) *Transition risks:* financial risks which could result from the process of transition towards a lower-carbon economy.
- 8 This is an industry-led initiative, chaired by Michael Bloomberg., for more information see: https://www.fsb-tcfd.org/