



**Written Testimony of Francis Bouchard**  
**Group Head of Public Affairs and Sustainability**  
**Zurich Insurance Group**  
**“Creating a Climate Resilient America: Business Views on the Costs of the Climate Crisis”**  
**House Select Committee on the Climate Crisis**  
**July 25, 2019**

Good afternoon. I would like to thank the Chair of the Committee, Congresswoman Castor, as well as Ranking Member Graves and other members of the committee for the opportunity to testify before the Select Committee. My name is Francis Bouchard and I am the head of Public Affairs and Sustainability for Zurich Insurance Group.

I plan to break my testimony into four main sections: a broad overview of how insurers view climate risk, how Zurich is addressing the issue of climate within our own operations, how we incorporate climate and environmental, social and governance (ESG) thinking into our market activities, and how we engage with society more broadly to help advance risk-sensitive climate-aware decision-making.

Before I start though, let me introduce the company I work for. Zurich is a leading multi-line direct insurer that has been serving its customers in global and local markets for nearly 150 years. With about 54,000 employees, it provides a wide range of property and casualty, and life insurance products and services in more than 210 countries and territories. Zurich’s customers include individuals, small businesses, and mid-sized and large companies, as well as multinational corporations.

For over a century, Zurich North America has called the greater Chicago area home. In 2016, Zurich moved its U.S. corporate campus a few blocks north in suburban Schaumburg, Illinois to an award-winning headquarters that has earned LEED Platinum® certification, the highest rating from the U.S. Green Building Council. The distinctive design underscores our commitment to resilience, collaboration and innovation. The headquarters became the largest LEED Platinum®-certified structure of its kind in the United States and the only one of its kind in Illinois. On the one-year anniversary of Zurich’s headquarters, we reported a 30% reduction in water and electricity consumption compared with our previous location.

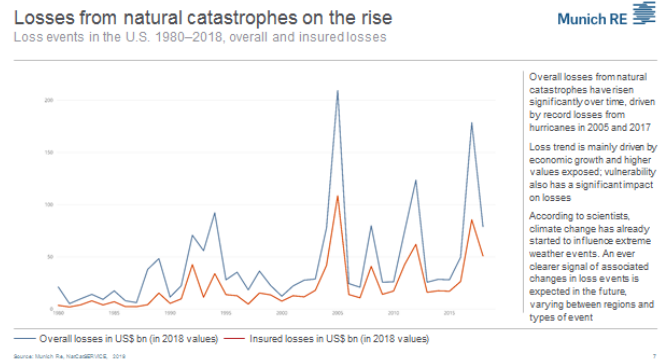
Using our core risk assessment skills to respond to some of the most significant long-term societal and environmental trends, we have identified climate change as perhaps the most complex risk facing society today. It is inter-generational, it is international and it is

interdependent. Representing the consensus of the international scientific community, the Intergovernmental Panel on Climate Change (IPCC) finds strong evidence that climate change is occurring, that it is influenced by human action, and that it is leading to changes in extreme weather and climate events.

Zurich shares this belief that climate change is real, influenced by human actions and impacting weather patterns. It is our aim to leverage our sector's role as the primary risk signaler for society to help deepen awareness of the risks climate change poses, and ultimately to incentivize the behaviors and best practices that will be required to both mitigate the worst impacts of climate change and adapt to changing weather patterns. We do this because Zurich's mission is to protect individuals, businesses and communities, and because we believe it's the right thing to do.

Furthermore, we do this because the impact of extreme weather events is escalating. The National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information captures this trend well in its analysis of billion-dollar weather-related disasters, with the three-year average of 15 such events per year far exceeding the 30-year average of 6.2 events per year (<https://www.climate.gov/news-features/blogs/beyond-data/2018s-billion-dollar-disasters-context>).

Perhaps even more alarming, though, the gap between overall economic losses and insured losses due to natural catastrophes is growing, not just in the developing world but in the United States as well. As this chart from Munich Re illustrates, both economic and insured losses have been steadily growing over the past three decades, with scientific forecasts suggesting the trend will accelerate and likely worsen.



This “protection gap” is a significant cost of climate change to governments and communities, and it is the reason policymakers should focus on pre-event resilience, knowledge sharing and risk-informed decision-making. To be clear, insurers are not only focused on the risks they insure, but are committed to securing more resilient communities for all stakeholders.

## RISK MANAGEMENT OF CLIMATE EXPOSURES

Broadly speaking, risk management responses to climate change fall into two categories: adaptation to the largely physical consequences of climate change; and mitigation of greenhouse gas (GHG) emissions and its associated transition risks.

If further impacts from a warming climate are to be avoided, the global economy needs to be transformed over the coming decades to reduce greenhouse gas (GHG) emissions. If not, then a further buildup of GHGs in the atmosphere will lead to a rise of average temperatures beyond

the Paris Agreement's 2 C level, which, over time, will have increasing effect on severe weather event patterns, frequency and severity.

While the most severe physical changes of climate change are likely to take decades to manifest, they are largely irreversible in the long term. So, the challenge is to act now, to transform the global economy and largely decouple global economic growth from GHG emissions. At the same time, due to the lag effects of GHGs in the atmosphere, the world will need to continue to adapt to the physical effects of climate change for decades to come. The challenge, then, is to drive risk-informed climate-sensitive decision-making across all sectors.

In contrast to the physical risks, transition risks are those economic disruptions caused by changing customer sentiment, new technologies or public policy. They tend to impact sectors with a shorter timeframe and with less predictability. Therefore, it is critical that policymakers develop a clear and holistic approach to transition-relevant issues in order to take into account the unintended consequences of even the most well-meaning policy approaches.

Assessing the potential cost of these physical and transition risks is essential for communities and corporations. For business leaders, this process may yield benefits beyond shoring up supply chains, for a truly holistic review of environmental risks will reveal opportunities as well. It is crucial that companies develop a climate resilience adaptation strategy, defined in four key steps:

- identify the broad business and strategic risks;
- identify the critical exposures, vulnerabilities and hazards;
- develop a granular view of the risks involved including, for example, individual locations; and
- develop a mitigation and resilience strategy, involving – where appropriate - insurance.

The challenge for business leaders and policymakers is to create strategies that optimize the opportunities associated with climate change adaptation and mitigation. In some cases, this can be done by individual initiatives carried out by the private sector and public sector, but in most cases, it will require multistakeholder action. In a few cases, it will require new technologies, new industries or new business models to be developed with new approaches to managing risk.

The Financial Stability Board, the global standard-setting body responsible for financial stability, established a Task Force on Climate-related Financial Disclosures (TCFD) that has created a useful framework for companies to start to address the corporate governance, risk management, scenario-playing and measurement aspects of either adapting to or mitigating the impact of climate change. The hope is that this approach, already adopted by 800 firms globally, will form the basis of information that investors and other stakeholders can act upon to target 'green' investment and policies to enable a transition to the low-carbon economy. This task is of course challenged by the definition of what is 'green' and what needs to be prioritized to deliver sustainable finance.

The TCFD is a good framework for disclosure of climate change impacts on a business, but we recognize that we are early in this process, and that it will take time to develop meaningful analysis of longer-term exposures under difficult-to-predict transition scenarios. That said, Zurich's research suggests that based on current disclosures and strategic responses companies' collective actions will not be sufficient to achieve the 2 degree goal of the COP 21 Paris Agreement.

Businesses have always had to change their strategies to respond to market conditions, but climate change is different in that the timescales of the most severe impacts are far beyond most strategic plans. In these circumstances, scenario planning as recommended by the TCFD is an appropriate way to deal with such future uncertainty. In fact, as evidenced in a multi-sector modeling exercise hosted last week by the Geneva Association, a global insurance think tank, meaningful disclosures can serve as the basis for collective action and cross-industry collaboration.

### **CLIMATE-PROOFING OUR OWN OPERATIONS**

At Zurich, being a responsible and sustainable company is at the foundation of our business. It is the reason we have signed the UN Global Compact in 2011, the Principles for Sustainable Investment in 2012, the Principles for Sustainable Insurance in 2017, and most recently the Business Ambition for 1.5 degrees. Even more important than these public commitments however, are the steps we are taking to future-proof our own operations.

Zurich became carbon neutral as of 2014 through its ambitious internal carbon emissions reduction efforts and by offsetting remaining emissions. We have decreased our own CO2 emissions per employee by 50% percent, eliminating over 150,000 tons of CO2e (equivalent of removing 32,000 passenger vehicles per year from the road) from our operations since 2007.

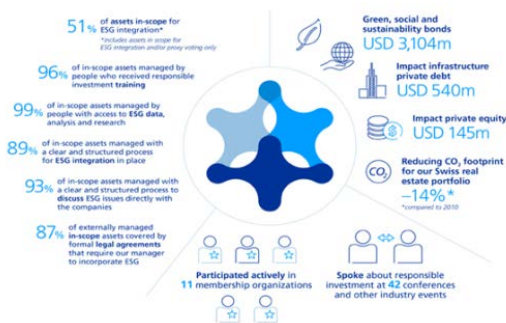
We are a member of RE100 (a global corporate leadership initiative committed to 100% renewable energy, [www.there100.org](http://www.there100.org)) and have committed to utilize 100% renewable energy across all our global operations by the end of 2022. Additionally, we have set ambitious, near-term operational targets like the reduction of internal paper usage by 80% and the total elimination of single-use plastics by the end of 2019.

Reflecting the keen interest our people have in being part of the climate change solution, we have also initiated an internal training initiative aiming to educate at least 10,000 employees on the basics of the climate change challenge, as well as the role that the insurance mechanism can play in creating awareness of and incentives for solution-based thinking. In addition, we will soon be launching an internal platform that will allow our people to voluntarily offset their own carbon footprints while enhancing resilience in flood-ravaged regions.

## MARKETPLACE IMPACT

In reality, though, insurers are relatively small emitters of carbon, so our ultimate impact will be achieved through our marketplace role, both as an institutional investor and an insurer of risks.

As an investor, we focus on both ESG integration and impact investing. We pro-actively evaluate ESG factors in our investment decision making process, both pricing risks and seizing opportunities in an award-winning approach. Currently, over 87% of our in-scope investments are meeting or exceeding our minimum standards on ESG integration and we are aiming to reach 100%. As part of this, we are embedding climate risk into our risk management processes, and are strengthening our technical and analytics capabilities for managing climate risk within our global investment portfolios.



We are also rapidly increasing our impact investments. In 2017, we announced our mid-range commitment to invest USD 5 billion in impact investments, avoiding 5 million tons of CO<sub>2</sub>e and benefiting 5 million people. By year-end 2018, we had already invested USD 3.8 billion avoiding 3.5 million tons of CO<sub>2</sub>e and benefiting 2.4 million people. We are not passive investors, however, and instead work with groups like the Principles for Responsible Investment (PRI), Global Impact Investing Network (GIIN), the Green Bond Principles (GBP) and others to help define the standards that will mainstream ESG investing. In this way, we have also been instrumental in the rapid development of the green bond market over the past six years.

On the product and market side, like other economic sectors it is still quite early in the evolution of a climate-focused insurance market. Many insurers have developed products utilizing technology to encourage better or even less driving, thereby reducing carbon emissions. Many, Zurich included, have dedicated policies for electric vehicles, and offer “build back better” options that achieve higher resilience standards. In terms of new technologies, Zurich developed the first dedicated carbon-capture and sequestration offering, and has systematically increased its solar and renewable energy business. In addition, it is methodically enhancing its modelling capabilities in order to support clients who are increasingly seeking to deepen their understanding of climate exposures. In short, as customer awareness grows and business models evolve, insurers are developing products and services that will help facilitate or even incentivize longer-term resilient behaviors.

In some cases, though, we feel the need to accelerate those trends and seek to deploy a risk-based engagement strategy to some of the more fundamental challenges posed by climate change. That is why Zurich recently took an important step aimed at helping to reduce the use of carbon-intensive fossil fuels by expanding its existing thermal coal policy to include fuels produced from oil sands and oil shales.

At the core of this new policy is Zurich's commitment to engage in risk-based dialogues over a two-year period with customers or those companies we invite in that have significant commercial operations in thermal coal, oil sands and oil shales. The aim is to drive a deeper conversation regarding their credible mid-to-long-term transition plans for reducing the carbon intensity of their operations.

Depending on the outcomes of its dialogues, Zurich has pledged to no longer underwrite or invest in companies that:

- generate more than 30% of their revenue from mining thermal coal, or produce more than 20 million tons of thermal coal per year;
- generate more than 30% of their electricity from coal;
- are in the process of developing any new coal mining or coal power infrastructure;
- generate at least 30% of their revenue directly from the extraction of oil from oil sands;
- are purpose-built (or "dedicated") transportation infrastructure operator for oil sands products, including pipelines and railway transportation;
- generate more than 30% of their revenue from mining oil shale; or
- generate more than 30% of their electricity from oil shale.

Our intent is to help drive a deeper conversation regarding mid-to-long-term transition plans for reducing the use of these fuel sources and their impacts on the global environment. In this same vein, Zurich has also committed to developing science-based targets that will hopefully help encourage a smoother transition in the sectors that we underwrite and invest in.

## **A BROADER SOCIETAL IMPACT**

The insurance mechanism has a clear role to play in deepening awareness of climate risks and incentivizing the economic and behavioral models to address those risks. However, keep in mind that the primary mechanism by which it sends risk signals is the price of an insurance policy. It is this price - conveyed through a simple dollar term - that reflects the massive amounts of historic data collection, modeling, diversification and risk assessment that insurers undertake. That policy, though, is typically for a duration of 12 months, which allows both insurer and insured to reassess their exposures and reprice the policy. That model typically works well for immediate well-known exposures, but less so for risks that will manifest over a 30-year period, like climate change.

In those cases, insurers must find new ways to play their role as society's risk assessors that go well beyond the traditional products and services they provide. That is why Zurich and other insurers have undertaken a series of initiatives to work with other societal actors to apply the analytics of insurance to a much broader set of stakeholders.

For example, in 2013 Zurich launched its Global Flood Alliance, a multi-sector partnership focusing on finding practical ways to help communities strengthen their resilience to floods. Together with our Alliance partners, which included the International Federation of Red Cross & Red Crescent Societies, Practical Action, the Wharton School and the International Institute for

Applied Systems Analysis, we not only developed a unique Flood Resilience Measurement Framework, including a toolbox to actively measure flood resilience, but we also applied the framework to over 110 communities in nine countries around the world, generating over 1.1 million data points.

With this framework, we plan to close the gap acknowledged by the UN: that currently no empirically verified measurement framework for disaster resilience yet exists. We do this by applying the measurement framework through our partners and program countries, thereby establishing the baseline of community resilience at the inception and measuring how sources of resilience develop over time as interventions are implemented. In addition, to validate the framework and ensure our sources or proxies of resilience do actually have an impact and build resilience, we measure outcomes of resilience should flooding occur in the program communities.

Building on the success of our first five years, we have widened the context of the Alliance over the last 24 months and are now working with further implementing partners, including: Concern Worldwide (Haiti, Afghanistan), Mercy Corps (Indonesia, Nepal, Timor-Leste), the National Academy of Sciences (Charleston SC and Cedar Rapids IA) and Plan International (Nepal). In this second five-year phase of the program Alliance members aim to increase third-party investments dedicated to pre-event resilience by \$1 billion. We seek do this by rolling out best-practice community programs that demonstrate the value of resilience-building, compiling best practices and success stories, and advocating for more investment in resilience with authorities and public and private funders.

From our perspective prevention and resilience-building are not just about humanitarianism, they are about more effective use of scarce funds. Our research of the cost-benefit analysis from dozens of specific flood resilience programs has determined that there is, on average, a 1-to-5 cost/benefit ratio, underlining not only that resilience building is the proper approach to reducing human misery, but that it is responsible budgeting as well. However, currently around 87% of all disaster-related funding is targeted “post-event”. Our aim with Zurich’s Flood Resilience Program and its multi-sectoral Alliance is to demonstrate the effectiveness of investing in pre-event resilience building and shift global funding from recovery to resilience.

Another approach we take to sharing our knowledge about resilience is through the publication of award-winning Post-Event Review Capabilities, or PERCs, that assess human-induced elements of what are typically considered “natural” disasters, including the resilience of people, supply chains, systems, legal and cultural norms before, during and after a disaster. We have conducted 14 such reports covering extreme weather events in Germany, the UK and Switzerland, as well as in North Carolina and Houston. In fact, we are currently in the process of conducting new studies of the wildfires in California.

Zurich’s PERC analyses of global disasters leave no doubt that disaster risk management professionals all face several universal truths when it comes to attitudes and actions around preparing for and responding to natural hazards.

The research clearly demonstrates that:

- Disaster risk management is playing catch-up to an increasingly larger exposure to natural hazards.
- Globally, spending on climate-related response is far greater than investment in pre-emptive risk reduction strategies.
- Where money is invested on weather-related prevention, it typically goes to protecting physical structures rather than more cost-effective risk management such as environmental planning.
- Infrastructure protection already in place – levees, for example – can produce a false sense of security.
- Few incentives exist to encourage “building back better” and including resilience into the rebuilding process.
- The neediest in society are often neglected before and after disasters, and sometimes are still recovering from one event when the next one strikes.

Several of the studies reviewed the science on the increasing frequency and severity of climate hazards, especially extreme precipitation and storm surges. Future climate scenarios were presented in PERC studies on European floods, and across all the studies it was clear that in order to achieve a certain level of protection simply relying on historical data is not enough. Hazards are changing rapidly and planning must take this into account.

The studies also show that societies can be vulnerable to repeated events and may still be recovering from one when the next one strikes. That was North Carolina’s experience with Hurricane Matthew in 2016 and Hurricane Florence two years later.

Rather than relying too heavily on disaster response, the PERC studies show that a better approach involves preventing the build-up of assets in high-hazard areas. The studies revealed, however, that there is little evidence that disaster risk is considered in most investment decision-making and land-use planning that could result in an accumulation of assets. For example, the PERC analysis of 2014 flooding in Nepal revealed that the risk of increased flooding from a planned hydropower plant had not been taken into consideration. In Germany, where flash floods caused heavy damage in 2016, the country experienced difficulties in controlling building in unmapped flood hazard zones.

North Carolina did use its experience with Hurricane Matthew to better prepare for the impacts of Florence two years later. Changes were implemented at state and local levels in interagency coordination, staging of key resources and an increased awareness of the need to prepare for recovery prior to an event. For example, the Food Bank of Eastern and Central North Carolina prepped branches and stocked local partners not just along the coast, but across the state in anticipation of inland flooding, which they hadn’t done ahead of Matthew.



Businesses, large and small, are urged to stress employee preparedness at home as well as on the job to ensure that they remain safe and are able to continue working remotely if possible. Raising employee awareness a day or two prior to an event by asking about stockpiles of food, backup power or lodging and the security of key documents can potentially lower losses and hasten a return to work.

The PERC methodology was specifically designed to turn the lessons learned from the consequences of disasters into actions that help businesses and communities become more resilient and recover quickly from devastating events. It is not enough to understand the dynamics of disaster risk and resilience, including what went wrong and what worked well, but that is the necessary first step.

We encourage all interested parties to apply the methodology and contribute to the repository of freely available material on success and insights from around the world. PERC studies and a manual that serves as a guide for conducting PERCs are available at <https://www.zurich.com/en/corporate-responsibility/flood-resilience/learning-from-post-flood-events>

We are also working with our primary US trade association, the American Property Casualty Insurance Association, to provide helpful data-driven analysis to advocate for public policy solutions that are most likely to reduce catastrophe losses and provide more ready-made solutions for increasingly resiliency.

Another resilience initiative we are proud of is our affiliation with SBP, a national non-profit based in New Orleans. Initially established to rebuild homes following Hurricane Katrina, SBP has evolved into such a high-impact knowledgeable force in post-disaster environments that it is now sharing its building techniques with other non-profits, advising local governments on optimizing federal funding programs and advocating for innovative approaches to disaster resilience. Perhaps its most impactful effort, though, will be a new approach to resilience training for individuals and small businesses that could help avoid losses altogether. Most of the beneficiaries of SBP's efforts are not insured, but by driving system-level change it is pursuing its mission of reducing the time between disaster and recovery.

An initiative we are just embarking on is to assess whether we can partner with others to create enough scale in the carbon offset market to drive projects towards nature-based solutions (e.g. coastal wetlands) that offer both carbon storage/sequestration and disaster resilience elements. The Nature Conservancy has worked creatively with other insurers to establish such scalable projects, and Zurich is already engaged in a series of discussions exploring how to expand the creation of such multi-benefit projects.

A final industry initiative that is leveraging the insurance mechanism to enhance climate resilience in developing economies is the Insurance Development Forum. This public private partnership, led by leading insurers and reinsurers, the World Bank and the United Nations, is creating the technical, financial and regulatory capacity to facilitate the use of innovative insurance solutions at the sovereign and regional level. Initially targeting those nations most

exposed to climate risks, the IDF is one of the implementing platforms for the G7/G20 climate resilience targets, including the goal of extending insurance to another 400 million people by 2022. They are also collaborating closely with the UK, German and other development agencies, as well as the Global Centre for Disaster Protection and the Global InsuResilience Partnership, to broaden the use of modelling, data analysis and risk transfer vehicles.

## **CLOSING**

In closing, let me reinforce that the insurance sector has a fundamental role to play in helping society prepare for and address the costs associated with climate change. At Zurich, we take that responsibility seriously, whether through our own operations, our market-focused actions or our knowledge-based initiatives. We are proud of the leadership our sector is taking in driving awareness and action on this critical issue. Zurich is dedicated to continuing to play a leadership role in driving global sustainability, and we invite and encourage everyone to join us in this essential effort.

Thank you.