A Call to Action:
Addressing Natural Catastrophe Protection Gaps

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Anatol Monid:

Hi everyone. Welcome to a TC podcast. I'm Anatol Monid, a senior director with the Toronto Centre. Today, I have the pleasure of speaking with Ms. Jacqueline Friedland. At its annual meeting in November 2023, the International Association of Insurance Supervisors (IAIS) released A call to action: the role of insurance supervisors in addressing natural catastrophe protection gaps. As the world has seen an ever-increasing frequency and severity of natural catastrophes, or NatCats, this work is probably overdue, but nevertheless relevant. Jacqueline Friedland is one of the vice chairs of the IAIS Protection Gap Task Force, which produced the paper, and the Executive Director, Risk Assessment and Intervention Hub at Canada's Office of the Superintendent of Financial Institutions (OSFI). She will give us some context and insights into this call to action. Her profile is available on our website. Welcome Ms. Friedland, Jacque, and thank you for taking the time to speak with me today.

Jacqueline Friedland:

Thank you very much for inviting me to join you today to speak about a topic that I'm very passionate about. Before I speak about the IAIS's recent paper on protection gaps, I want to share a little bit of my background. Prior to joining OSFI in October 2020, I worked for more than 35 years as a property and casualty (P&C) actuary. I worked in consulting, as well as with large global P&C insurers. Through these years, I was very involved in actuarial organizations in the U.S., Canada, and internationally, and among some of my most favorite projects were research publications on topics such as water damage risk and property insurance pricing for the Canadian Institute of Actuaries, and flood risk for the International Actuarial Association. While at KPMG, I conducted research assignments for the Property and Casualty Insurance Compensation Corporation (PACICC). This is an industry funded not-for-profit guarantee fund that protects policyholders and claimants in the unlikely event of a failure of a Canadian P&C insurer, and it was probably my work with PACICC, and in particular my review of their excellent publications about the potential consequences of earthquakes in Canada – one in particular that's titled *How Big is Too Big? the Tipping Point for Systemic Failure* – that were most influential in igniting my passion on the topic of natural catastrophes, which I will refer to as NatCats, protection gaps.

In joining OSFI, I held the first non-actuarial role of my career, and my first role at OSFI was as Senior Director, Property Casualty Insurance Group, and in this role, I led the frontline supervision teams responsible for all federally regulated P&C insurers and mortgage insurers. In April 2022, I took on a new role, the role I hold now, where I'm the Executive Director of the Risk Assessment and Intervention Hub. It's a long name and title, but essentially, it's the frontline supervision teams for all federally regulated financial institutions, which include banks and insurers, and also federally regulated pension plans. It was in my new role that I became active in the International Association of Insurance Supervisors, the IAIS, and I serve on their executive committee. I was very excited in the fall of 2022 to hear the intent of the IAIS to conduct research and prepare a publication on NatCat protection gaps, and I eagerly stepped forward to see if there was a leadership role that I could play in this task force.

Anatol Monid:

It's great when your passions and your work can come together, Jacque. So, for the purposes of our discussion, as in the report, we will use the term natural catastrophe, NatCat, as referring to damages caused or accentuated by natural catastrophe events such as floods, earthquakes, and storms, and could be used interchangeably with the term disaster risk, which is commonly used by other organizations such as the OECD, World Bank, and United Nations. What is the purpose of this report and why now?

Jacqueline Friedland:

So, I'm going to start with the 'why now' part of your question first, and then I will speak to the purpose of the IAIS report. Why now? The question could easily be, why was the IAIS so late?

The Geneva Association is one of my go-to places for thought leadership. For listeners who may not be familiar with the Geneva Association, it's the only international association of insurance companies. Members are CEOs of insurers and reinsurers, and, as indicated on their website, they're the think tank for the global insurance industry. And, as such, they carry out rigorous research and collaboration with their members and their companies, academic institutions, and multilateral organizations. The Geneva Association published on the topic of protection gaps, including NatCat protection gaps, as well as others, first in 2014, again in 2018, and most recently in March of 2023.

In its initial report in 2014, which is titled *The Global Insurance Protection Gap: Assessment and Recommendations*, the Geneva Association was focused on answering two questions. First, what is the current scale and scope of the insurance gap and how can it be measured? And second, what are the root causes of under-insurance and what can insurers do to close the protection gap, and thereby enhance their contribution to economic development? The first report under insurance was described as the gap between the current state and the full potential

of the insurance industry to serve the economy. The Geneva Association states that the protection gap is a hindrance, it's a threat to economic development and overall wellbeing of society. In their next report in 2018, the Geneva Association noted that the root causes and prevalence of insurance protection gaps varied widely across the globe. This reflects the varied stages of economic development as well as variances in social, institutional, and cultural circumstances. It's noted that insurance protection gaps are most striking in developing and emerging markets where combined insurance premiums still fall significantly short of these countries' and regions' share in global GDP, and we have very similar comments that are made in the IAIS report that was released five years after this publication.

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>
> **Jacqueline Friedland**
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In March 2023, the Geneva Association published a four-page research brief that included updated information on the NatCat protection gap, and in this brief, they note that there has been no progress in shrinking the NatCat protection gap in lower-income countries. They report that the protection gap remains massive, with only about 30% of catastrophe losses insured. Furthermore, there are huge differences between country income groups. While there's been progress in shrinking the gap in high and upper-middle income countries, there was minimal to no progress in lower-middle- and lower-income countries, with protection gaps that persist in excess of 95%. So, I think this clearly answers the "why now", there's an urgent pressing problem that affects insurers, and there is a role for insurance supervisors in helping to achieve solutions.

So, now to the purpose of the IAIS report. Our report is intended to provide a basis for engagement and to stimulate discussion among insurance supervisors, the insurance industry, consumers, policy makers, and other relevant stakeholders on measures to address protection gaps. It's very important to recognize that the report is not intended to be used only by insurance supervisors. Personally, as a key member of the task force that worked on this paper for almost a year, I would feel that we were not successful if our report only remained with supervisors. It's intended for wide distribution to everyone who has a role to play in solving the problems associated with NatCat protection gaps. In the report, we outline ideas that can serve to support concrete action, and we analyze various types of initiatives that supervisors can use to address NatCat protection gaps. The report describes how actions can help achieve foundational supervisory objectives, and we provide details on the range of actions that supervisors consider and how the role of supervisors can be enhanced. While the report focuses on protection gaps related to NatCat and climate-related disasters, the IAIS recognizes that protection gaps exist across the spectrum of risks including cyber, health, mortality, pandemics, and pensions. Actions presented in the report could also be applicable to initiatives aimed at these other types of protection gaps.

Anatol Monid:

I like that this call to action is not just for insurance supervisors; everybody needs to be paying attention, so thank you for that. The IAIS papers are helpful in bringing a common lexicon and a meaning to all insurance supervisors, especially for collaborative work, but I am sure that many stakeholders use the term differently. What are protection gaps, and is there a common interpretation of insurance protection gaps, especially in relation to NatCat that the paper sets out?

Jacqueline Friedland:

So, in the IAIS paper, we acknowledge that insurance protection gaps, which we refer to simply as protection gaps, can be defined in different ways by different stakeholders. One common interpretation of the NatCat insurance protection gap is the uninsured portion of economic losses that are caused by natural disasters. In other words, I'm an actuary so I go right to a mathematical formula. Just think of total economic losses minus insured losses equal the protection gap. There are other definitions that focus on the insurance protection gap as the amount of insurable losses that are not insured. Protection gaps are often expressed either in monetary terms or as a percentage of total losses. According to a recent report, only 45% of global economic losses in 2022 that were related to NatCat events were insured. In USD terms, this is 125 billion out of 275 billion. This means that millions of households and businesses faced a large protection gap.

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The IAIS did not intend for its report to debate the different interpretations of the definition of protection gaps. Similarly, we did not intend to attempt to measure or quantify the protection gap. We cite figures in the paper that are taken from the work of partner organizations or industry. The report works from the premise that NatCat protection gaps exist, and in many cases, are expected to grow due to the effects of climate change and other factors such as ongoing development in high-risk areas. NatCat protection gaps exist across the IAIS member jurisdictions, albeit the contributing factors, the nature, and the scale of the gaps differ depending on the regions and the insurance market. Low levels of insurance coverage for NatCat events are due to many factors, including the gap between the cost of insurance coverage and the amount that policyholders are willing or able to pay for such coverage. In some situations, low insurance penetration and the unavailability of suitable insurance solutions for NatCat events precludes the uptake of coverage.

Anatol Monid:

This paper addresses a real problem we often hear in the media about that uninsured portion of natural catastrophes, so we hope that stakeholders that are listening are considering ways to address this gap. The report discusses five major areas of supervisory activity to narrow NatCat protection gaps. Could you briefly outline these?

Jacqueline Friedland:

Well, I'm going to outline them. I'm not so sure how brief I'm going to be in my comments because there's a lot of information and I want to share it with listeners. The five major areas of supervisory activity that can help address NatCat protection gaps include:

- Assessing insurance protection gaps as the quantification of it
- Improving financial literacy and risk awareness
- Incentivizing risk prevention and reduction of insured losses
- Creating an enabling regulatory and supervisory environment to support availability of insurance and the uptake of coverage
- Advising government and industry on financial inclusion and societal resilience, including on the design and implementation of public private partnerships (PPP) or insurance schemes

Now I want to take a few minutes and expand on each one of these areas because I think they're really important. So, the first was assessing insurance protection gaps, and in the report, we identify three potential activities for supervisors in this area. Supervisors can collect and potentially share data from insurers on insured losses, and to the extent available, also uninsured losses. Supervisors can promote the understanding and the development of NatCat models that are used to evaluate and quantify the risks. And finally, supervisors can provide insurers and public authorities with analyses of the root causes and the relevant importance and extent of protection gaps. The insight that results from a comprehensive assessment of NatCat protection gaps can help supervisors achieve financial stability, policyholder protection, fair treatment of customers, and also financial inclusion and market development. The assessment of protection gaps, by its nature, requires access to data and models. Supervisors require access to different types of data and different types of models for each of the different types of perils: earthquake, tsunami, windstorm, flood, wildfire, drought, hail, etc., as each of these perils can lead to NatCat protection gaps. Separate data and models are required by geography.

To assess protection gaps, we need historical data, as well as forward-looking data from models. In our report, we speak in more detail about data collection and sharing, about models, and about stress testing and scenario analysis. With respect to data collection and sharing, we cite the European Insurance and Occupational Pension Authority, which I abbreviate as EIOPA, as an example. In December 2022, EIOPA released a dashboard for NatCat protection gaps that was developed using data on economic and insured losses, risk estimations, and insurance coverage from 30 European countries. In the report, we also acknowledged that in some countries a single supervisory authority is not responsible for all insurers. Canada is an example; some insurers are supervised federally, and others are supervised provincially. Similarly, in the United States, insurers are regulated by the individual states. Thus, it's important that there are joint efforts on data collection that can help ensure a comprehensive assessment of NatCat protection gaps.

For models, we cite examples from Costa Rica, the National Association of Insurance Commissioners (known as the NAIC) in the U.S., EIOPA in Europe, and the Global Risk Modeling Alliance, known as the GRMA. The GRMA offers countries open data, technology, and practical learning through co-development of risk management strategies and applied risk finance projects. And for stress testing and scenario analysis, in the paper, we cite examples from France, Canada, and Japan.

So, the second activity was improving financial literacy and risk awareness. This is important to understand the types of insurance coverage that are needed, and the scope of insurance coverage purchased. In the report, we note that increasing financial literacy can help consumers make better decisions and help them build resilience to financial shocks. We view improving customers' financial literacy and risk awareness as a preventative approach that can help narrow the protection gap and thereby reduce the financial effect to consumers before the occurrence of a NatCat event.

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Supervisors have a role to play in promoting general financial education through dedicated consumer-centric sections of their websites, through consumer outreach programs, infographics, and other similar educational initiatives. Additionally, supervisors who are responsible for consumer protection either on their own or in collaboration with industry and other government agencies can support initiatives that help enhance consumer financial literacy and risk awareness. Such initiatives can comprise general programs that are sponsored by government, insurance industry associations, insurers, or a combination thereof. We also note that supervisors can play a role in engaging with policymakers to emphasize the value of insurance as well as the importance of insurance literacy and risk awareness.

In the context of NatCat events, we identify two primary activities in which supervisory measures can help improve consumer financial literacy and risk awareness. Supervisors can ensure consumers are informed through supervisory initiatives, and in this area, we cite examples from Ontario, Canada, Slovenia, EIOPA, Japan, and Zimbabwe. And supervisors can also impose requirements on insurers to provide clear information on risks and available coverage, and here we cite an example from Ireland.

The third activity is incentivizing risk prevention and the reduction of losses. Risk prevention measures, that is adaptation and risk mitigation measures, can help reduce policyholders' physical risk exposure to NatCat events, and this can thereby prevent damages and loss that arise from a catastrophe. In the report we cite examples of property and flood resilience upgrades, both pre- and post-event, and these can help lower frequency and severity of losses. Supervisors can raise awareness on the benefits of risk prevention, and also inform and encourage consumers to invest in risk prevention measures. Supervisors can also implement

measures to incentivize transparent risk-based pricing by insurers. For incentivizing risk prevention in reduction of insured losses, we cite examples from New Zealand, the U.S., the U.K., and EIOPA in Europe.

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The fourth activity is about creating and enabling regulatory and supervisory environments to support the availability of insurance and uptake of coverage. Actions by supervisors can be explicitly linked to a market-development mandate, or, more implicitly, through market conduct and prudential measures. Supervisors can support the development of innovative insurance products and services and embrace, where prudent, technological innovations, and supervisors can also support the availability and take-up of NatCat insurance coverage. With respect to innovative insurance products, we present brief descriptions of parametric or index-based insurance with examples from Chile and Zimbabwe. We speak about disaster microinsurance with an example from Belize. And finally, we speak about regulatory sandboxes with an example from Nigeria. With respect to supporting the availability and take-up of coverage, we discuss mandatory insurance products or standard inclusions enabling access to global reinsurance, catastrophe bonds, also known as cat bonds, and risk-based pricing and capital requirements.

Finally, the fifth activity was advising government and industry on financial inclusion and societal resilience, including the design and implementation of PPP (that's public private partnerships) or insurance schemes. It is imperative to narrow the protection gap for NatCat events, and this will likely require a collaborative effort between multiple parties that include governments, industry, and insurance supervisors. Together these parties are able to bring together a combination of insights, convening power, and authority that can lead to the development of comprehensive strategies to bolster society's ability to withstand and recover from NatCat events.

Sorry, I told you it wasn't going to be brief, but it was a meaty question you gave me.

Anatol Monid:

That was a great answer Jacque, and hopefully people will still need to read the report to look at the examples that you have cited throughout. I want to pay particular attention to one of your last statements about the collaborative effort that is necessary between the multiple parties of government, industry, and insurance. That's key to addressing the gaps, so thank you for that.

Turning now, since 2008, over 265 million people have been displaced by natural catastrophes at one time or another. These people are often already vulnerable, and then find themselves further excluded from financial services. The International Association of Insurance Supervisors considers financial inclusion a key pathway to sustainable growth and development. It states inclusion is "an important element in delivering fair, safe and stable financial markets in a

jurisdiction and is thus an indispensable contributor to financial stability.” Toronto Centre believes there’s a direct link between financial inclusion and financial stability as well. The supervisory mandates may also include the promotion of insurance market development or financial inclusion. Within these various mandates, insurance supervisors can play an essential role in supporting disaster risk assessment, risk management, and resilience. Does the paper address supervision and financial inclusion?

Jacqueline Friedland:

Yes. The short answer: yes, the paper absolutely addresses supervision and financial inclusion, and the fact that many supervisors have taken on broader scope and responsibilities actually consumed a lot of our time as we initially planned for how were we going to approach our research and how are we going to organize and write our paper. There are still some regulators such as OSFI who focus on traditional policyholder protection and financial stability objectives. However, the challenges that have been brought upon by increased digitalization and climate risk have led to new and expanded mandates for some supervisors. As the paper notes, an increasing number of policymakers who are concerned with financial inclusion and resilience goals have assigned insurance supervisors an explicit market development mandate. Further, a growing number of supervisors are taking a more active role in supporting inclusive insurance markets in response to increasing societal risks due to the lack of affordable and appropriate insurance coverage.

> Financial inclusion implies the improvement in access to insurance, and improved access could be for those who already have coverage, it could be directed at new coverages for segments that have insurance but for other types of risks, and it could be for new coverages for those with no insurance protection. These types of supervisory measures can increase access to insurance, and thereby narrow NatCat protection gaps.
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A very important point that we highlight in the paper, and that we’ve highlighted when speaking about the paper, is, regardless of mandate, all supervisors, and I want to emphasize that, all supervisors have, either explicitly or implicitly, a basis for action on addressing protection gaps, and we try to bring out this point repeatedly in the paper. Section two of the paper addresses how supervisory objectives relate to NatCat protection gaps. There’s a reference to the Insurance Core Principle 1.2 and the statement that, and I quote, “some supervisors may have additional supervisory objectives, such as promoting insurance market development, financial inclusion, financial consumer education.” Supervisors in some countries have a role to play in making affordable and appropriate insurance accessible to underserved segments of society. The paper states that actions to address NatCat protection gaps not only address financial stability, policyholder protection, and fair treatment of customers, but also financial inclusion and market development. Actions that address NatCat protection gaps are more central to those supervisors who have the objectives to promote financial inclusion and market development.

Financial inclusion implies the improvement in access to insurance, and improved access could be for those who already have coverage, it could be directed at new coverages for segments that have insurance but for other types of risks, and it could be for new coverages for those with no insurance protection. These types of supervisory measures can increase access to insurance, and thereby narrow NatCat protection gaps. Financial inclusion is addressed specifically in the fifth supervisory activity, which I spoke earlier about. This was about advising government and industry on financial inclusion and societal resilience, including designing and implementing public private partnerships or insurance schemes. In the paper, we provide an example from the National Insurance Commission of Nigeria who in 2023, released the Insurance Regulatory Sandbox Operational Guidelines with the intent of deepening innovation and financial inclusion in Nigeria. The intent of the guidelines is to drive innovation of insurance products and services through digitization of insurance operations that are in line with international best practices.

Anatol Monid:

That's a good link to my next question. Toronto Centre's area of focus is on emerging markets and developing economy countries. These jurisdictions often have socioeconomic challenges, lower levels of insurance penetration and may be more vulnerable to NatCats. Does the report provide any guidance to emerging market and developing economies (EMDE) insurance supervisors?

Jacqueline Friedland:

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Absolutely. We note that NatCat protection gaps are a significant challenge in EMDEs, as noted in the Geneva Association papers, as well as many other thought leadership papers on the topic of protection gaps. The IAIS paper comments on the fact that NatCat events and their socioeconomic impacts can affect EMDEs more severely, given the high vulnerability and the low resilience to adverse events. Furthermore, the low awareness about insurance and the limited coverage accentuates protection gaps in these economies. The United Nations Office for Disaster Risk Reduction reported that, between 2010 and 2020, economic losses from NatCat events represented a higher proportion of the GDP in low and lower-middle income countries than in upper-middle- and high-income countries. Insurance is one of the key tools that can help bridge protection gaps in EMDEs. Insurance provides an alternative for vulnerable and low-income populations so that they do not need to sell their belongings, or they do not need to reduce or stop business investments, or household spending on food or education.

Insurance can help vulnerable populations, so they're not forced to deplete their savings or take out high interest loans following the loss from a NatCat event. Greater use of insurance can provide financial security to vulnerable and low-income populations that in turn, helps lead to an overall increase in investment consumption and productivity. In the paper, we state that supervisors have a core role in creating the enabling environment for insurance-based solutions through proportionate regulation and supervision. Ideally, supervisors are able to create an environment that's conducive for developing and delivering need-based products that are affordable and accessible, while also ensuring that insurers offer products that are financially sound and treat customers fairly. Proportionality in regulation and supervision is particularly important for promoting an inclusive insurance sector, including solutions such as microinsurance and index-based insurance.

We note that access to these types of innovations can facilitate timely financial relief following a NatCat event, support faster recovery, and help mitigate the long-term effects of disasters, especially for low-income populations. In the paper, we cite several regional and global initiatives, including the V20 and G7 supported Global Shield against Climate Risks, and the Insurance Development Forum (IDF), which provides an ecosystem of public and private sector actors, and aims to extend the use of insurance to those vulnerable to disasters.

Anatol Monid:

I think it was particularly important when you talked about the proportionality in regulation and supervision. We see that as a very important component to, as you said, the development of inclusive insurance. Finally, given your professional experience and position with the IAIS Protection Gap Task Force, do you have any advice for insurance supervisors, or perhaps for other sector regulators and central bankers, about addressing protection gaps, especially for NatCats?

Jacqueline Friedland:

I'm going to offer the same advice in this podcast that I gave in Tokyo at the IAIS annual conference in November: read the paper! The main paper is less than 25 pages, if you exclude the annexes. (Annex one addresses disaster risk financing, and Annex two provides expanded details on supervisory activities to address protection gaps.) But every one of those 25 pages (and the pages of the annex) has valuable insight and details. There are ideas for those who are just getting started, and there are ideas for those who've been working on protection gaps for years. While there's clearly much work to be done, this paper is a great start, and I'm very proud to have been part of the IAIS's work on this important project.

Anatol Monid:

It sounds like good work was done and I have always found that IAIS papers are a good reference for many supervisors that we work with. So, since I have you here, Jacque, what else can you share about the work of the IAIS Protection Gap Task Force?

Jacqueline Friedland:

My final words will be that our work is definitely not ended, although we are in a bit of a transition right now. We accomplished the mission we set out for 2023, and that was significant. We started the year with a blank slate, and we were able to complete all of our research and produce a meaningful report on time. I have to give tremendous thanks to the fabulous IAIS

secretariat, who really made it happen. In November, we held discussions at the Tokyo meeting with the task force and also with the IAIS Executive Committee about our next steps. We're in a planning mode right now. We are examining what these next steps should be in the area of NatCat protection gaps, as well as thinking about whether we should be looking at other protection gaps such as cyber, healthcare, or even pensions. These are very important discussions, and I'm hoping that we'll be able to share more by mid-2024.

Anatol Monid:

Thank you, Jacque, and great work. So, let's wrap up. TC has developed and delivered programs related to supervising climate and biodiversity loss risks and financial inclusion that may assist your authority in supporting the oversight of financial institutions affected by climate risk. We're happy to discuss an opportunity to develop such a program for your jurisdiction authority, or agency. We recently launched a new annual International Senior Management Workshop on Climate Risk and Biodiversity Loss Risks. So make sure you sign up for our newsletters and alerts to see what else is in store and go to our website or download our 2024 program catalogue.

Toronto Centre has trained more than 26,000 supervisors since its founding in 1998, and this work is generously supported by Global Affairs Canada, the Swedish International Development Cooperation Agency, the International Monetary Fund, and our other funders. I'm here today in Toronto, Canada, speaking with Ms. Jacque Friedland, OSFI Executive Director, Risk Assessment and Intervention Hub, and one of the vice chairs of the IAIS Protection Gap Task Force – and you've been listening to a Toronto Centre podcast. Thanks for joining us.