

Actuaries Institute Podcast – APRA Climate Risk Survey: Awareness to Action

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Sharanjit: Hello and welcome to the Actuaries Institute podcast. I'm Sharanjit Paddam, I'm an Actuary, and Convener of The Actuaries Institute's Climate Change Working Group, and I'm head of ESG Risk at QBE Insurance. Today, I'm joined by Geoff Summerhayes, Executive Board Member at APRA. He's a member of the Executive Committee of the International Association of Insurance Supervisors and is also Chair of the Sustainable Insurance Forum, which was established under the UN.

Geoff, thank you very much for joining me. I wanted to start perhaps with the background to this report, Why did APRA perform this survey and produce this report?

Geoff: Hello Sharanjit, and great to be with you and share some thoughts on this important topic. So, background. We go back to 2016 actually, when the APRA board turned its mind to climate risk and the financial impacts for the entities we regulate. Now as a prudential regulator, we have a duty and an obligation to raise awareness with the entities we regulate on risks that we see that might impact the outcomes of beneficiaries of those institutions and we thought there were three important things that occurred in 2016 which caused us to I guess make a move on this particular risk.

The first of those is the Paris Accord. The second was the forthcoming TCFD Financial Stability Board's work on climate related financial disclosure, and the third was the Hutley legal opinion here in Australia about director's duties.

The board of APRA agreed to put in place, a program of awareness raising, which we thought we'd kick off with some speeches, which we did in 2017. Director engagement, we participated in conferences and panels and we engaged with our international peers. We established a working group within the Council of Financial Regulators that worked cooperatively with ASIC and the Reserve Bank on this issue and two years had passed and we thought it was important to, not only do a stock take [of] what had happened over the last two years, but test the maturity and the awareness of the institutions we regulate and so we chose to do a survey of the 38 largest banks, insurers and superannuation funds to test their awareness and their maturity and assessment of this particular risk.

Sharanjit: Thank you, Geoff. And yes, I mean the speeches have come through in 2017 by yourself and then followed by ASIC's speech, and then only a month ago (March 2019), Guy Debelle from the RBA. When you got the results of this survey, did they surprise you? Or was there anything that you found particularly interesting about the results?

Geoff: We issued the paper on the 20th of March titled "[Information Paper | Climate Change: Awareness to action](#)" and the title was important because we saw that this phase of awareness had really matured and come to an end to a certain extent, and we were also wanting to signal from a regulatory perspective that we were shifting our stance towards supervisory actions.

So, to answer your question on results, we deemed the last couple of years as being effective, and in fact if you look at a high level, we found that across the 38 entities, there was general awareness of this risk. The risk was being viewed by a third of the entities we supervised on the survey as being material now or certainly in the short term. Entities were describing potential for business opportunities as well as risks from the survey. There had been a fair degree of upscaling within those entities around how you respond to the risk.

We were seeing the risk was being embedded in organisation's risk management frameworks. There were some analytics and analysis being done in some entities and the way entities were thinking about the risk and disclosing the risk was very alike to the TCFD framework. We were quite gratified by the progress, at least in these 38 large institutions and the paradigm shift that occurred over the two years.

I'm not sure if that's surprising, but we found it interesting that how much TCFD had been used as the framework. The maturity of the banks, superfunds and general insurers was quite advanced and again, we surveyed the largest most sophisticated entities, so we would expect that. We also [are] somewhat surprised by the degree of opportunities that these organizations identified, either in products, product innovation, opportunities for investment, services to their customers or the community, the extent of internal controls that have been embedded in organisations, and the opportunity for community engagement around resilience issues.

Sharanjit: Yeah. It has been, I think, a very rapid development and particularly driven by TCFD as you say. We did see a lot of difference between the results of different sectors. Perhaps the health insurers and life insurers not being as advanced. What are your expectations for different financial sectors?

Geoff: Well our expectations, ultimately this is a matter for boards and their management. APRA's role is to, where we think there are material risks, and we do think that this climate financial risk is both material, foreseeable and actionable now and while there is some uncertainty about the time horizons and how the risk will materialize, there are opportunities to act on the risk now to mitigate those impacts.

APRA's own heat map of the assessment by sectors had identified that both the life insurers and the private health insurers were perhaps less impacted in the short term. But interestingly, the highest rate of risk for both those sectors was, in the life insurers, heat stress and in fact, heat stress globally is I guess the

biggest issue when you look at climate change risks. In fact, more people lose their lives through heat stress than any other form of natural disaster.

And the private health insurers identified reputational issues as related climate change financial risk. I guess the summary of both of those, and if you look at the survey results, both those sectors are less mature in terms of how they're thinking about the risks. We will seek to understand the reasoning for that when we engage with entities over the coming months.

Sharanjit: I certainly think from an actuarial point of view, we're looking at some of the mortality and morbidity risks that arise from climate change, and particularly over the medium to long term. So that will be of interest I think to PHI and life insurers.

Geoff: There was an interesting little anecdote from one of the general insurers on some work that we did with them over the last couple of years and they found that in periods of heat stress, there was a spike in claims, and actually when they dug into the correlation between general insurance claims and these heat events, they found that there was a correlation between substance abuse, alcohol, drugs, etc, which led to crime, led to in some cases domestic violence issues.

That was an interesting outworking of heat related stress but there are mental health issues that go with heat, and there are of course acute issues for the elderly and the young as it relates to heat and whether health insurers and life insurers have thought about those issues and started to embed or model those issues appropriately, is something that we need to look into further.

Sharanjit: Yes. One of the conclusions, as you said, is moving from awareness to action. One of the words within the report is this, a greater supervisory intensity around this issue. Can you explain what that might look like for regulated entities?

Geoff: The first thing to say is that, like the rest of the community, APRA and our regulatory peers came to this risk, which is a newer category of risk in terms of the capability for APRA supervisors, indeed our colleagues at ASIC and the RBA as well. So, we've gone through a process, as our regulated entities have, over improving our awareness and understanding. So, what does that look like internally?

At APRA, we have engaged with experts from a range of different disciplines. We've developed supervisory material and guidance. We have run workshops internally for education of our supervisors and while we've been raising awareness with the entities that we regulate, we've also been raising awareness and understanding within the 600 employees within APRA. We now feel in a position that we are better equipped to engage with entities on this next phase, which we are calling shifting from awareness to action. So how are we doing that? Well we're starting with the 38 entities that we supervise, and there is an assessment template that we are working our way through with each of those entities.

Geoff: In fact, that the normal day to day supervisors that engage with those entities are working through that assessment template and that looks at a range of things and asks the supervisor to assess, and in some cases, score the entity. So, we look at the awareness and materiality of the climate change financial risk to the entity. We make an assessment of the governance of that risk within the entity. To what extent is the board involved? What are the governance groups? Are there subcommittees involved in that? Which are the key executives that have oversight of the risk?

We then assess the entity's overall governance and rate it from one to five. We do the same for strategy. What strategy does the entity have in place and what's the impact on products? Carbon footprints, innovation technology. How they're improving their knowledge. What research papers? How they've improved their reporting. What action plans? Position statements, roadmaps that they've put in place and again, we will assess that component.

We then move to risk management. What role does risk management play? What are the different ways that APRA has observed risk management within that entity, how they're managing financial risks and how is that incorporated into their risk registers, into their risk appetite statement. Do they have climate change policy? How are they documenting that in terms of their investment and underwriting procedures?

What due diligence are they doing on customers when they're both providing credit for the case of banks or underwriting or investing as the case of insurers and superfunds. How [are] they integrating that into their catastrophe modellings, pricing. And what business continuity plans have they got in place? Have they thought about stress testing and how are they assigning responsibilities to key individuals in the organisation around managing those risks?

The fifth category is thinking about the analysis within those firms. What financial analysis are they doing around investment insurance, operational and strategic risks? I've got to say, this the least mature of those. And perhaps we can talk a little bit more about that. What opportunities are available within those firms for modelling, what scenario analysis have they done, and again, we rate that.

And then finally, disclosure. So, disclosure is important for investors, it's important for beneficiaries, it's important for regulators, it's important for people to make appropriate decisions about organizations. So, ASIC put out in early 2018, ASIC's report 593, which was about expectations of firms on disclosure. And again, we are looking at that as it relates to those firms, the adoption of TCFD recommendations and scoring that.

You know, that sounds quite detailed, and it is. And I don't want that to come across in some way of being onerous. The point I would want to stress is that we have gone through a degree of improving our discipline on this particular risk and we are factoring that into our normal supervisory approaches.

Geoff: So, we are unlikely in the short term to do climate related engagements, but some of those considerations will be factored into the supervisory cycle with the firms.

Sharanjit: Right. Because it certainly sounds intense, which is the word that you've used. One of the things you talked about in the past is expecting more sophisticated approaches by more sophisticated organizations.

Geoff: Yes.

Sharanjit: And that that seems to be very much in line with what you're talking about there. A greater level of sophistication over time as well.

Geoff: Absolutely. So ultimately, it is for the board and the management to determine the materiality of this risk. Regulators ask firms to look at a whole pile of things, and firms are keen to do that themselves obviously. Boards and executives have a very full agenda and they need to make a determination of how does this risk relate to them.

But if you're a bank and you are extending credit on infrastructure, long dated infrastructure or indeed, you're lending on a residential mortgage. Then you want to take into consideration what does the flood plane look like? What [are] the chances of coastal inundation? What is the exposure to extreme weather events?

If it's infrastructure, what is the impact on the changes and the way the economy is structured over a 20 year cycle? And whether that's extending credit or investing as a superfund, or indeed as an insurer, underwriting. If you haven't thought about those things, you are potentially exposing your firm to risk.

Sharanjit: If we go back to one of the things you mentioned, talking about analysis, and particularly the scenario analysis. As you were saying, that that's a significant challenge for many banks and insurers in this point in time.

Geoff: I think the big issue here, and I know it's something The Institute of Actuaries and, Sharanjit, you have also been doing some very good work in this area, is on what we are calling the climate data deficit. And there is a lack of granularity on what is a material financial risk with systemic implications.

What is important in this next phase is to get a better handle on taxonomy. So, what do I mean by that? Different people are referring to different aspects of this risk with different categorisation. There is some need for obviously comparison across sectors, across firms.

Taxonomy models, integrity of data, scenario testing, stress testing. All of those things rely on a core data set that can be verified, that can be trusted, that can be the basis of models and this is very immature and it's very immature for a risk that is upon us, and in many cases, a risk that is accelerating.

Sharanjit: Yes. And I certainly agree and as Actuaries, we'd be very interested and we are very interested in proving that and giving companies the ability to understand these risks in the longer term and provide those scenario analysis. Trying to do it in a way that's robust with the science, but also understanding the limitations and uncertainties that we have at this point and time.

It's a big challenge and I know that many parts of many different organisations are looking at this and how we get that data and how also we use that data and integrate it within what we do.

Geoff: It's the business of financial firms to take risks. This isn't a standalone modelling exercise. How is this built into credit risk models, investment risk models, and insurance and underwriting risk models? Insurers I think are potentially more evolved in this area. I mean insurers have been underwriting climate risk for hundreds of years.

The issue is that this risk is behaving and accelerating in ways that historically, if I speak for insurers, general insurers have thought about the past being a predictor of the future. But what happens if that thesis no longer holds? And what happens if the future is behaving in ways and the interconnectedness of events is happening in ways that don't appear in any of the past models and then how do you price that? How do you risk mitigate that? That's the essence of the challenge.

Sharanjit: I agree. And I think Guy Debelle, the Deputy Governor of the RBA put it very well when he said that "*the thing with climate change is that it's not a cycle, it's a trend*" and he was talking about in a macro-economic sense, but I think it also applies on a weather sense and a climate sense, that we're not talking about the usual variabilities. We're talking about a big trend in what's going on. And that drives the difficulties for us.

So, what's next for APRA on climate change? Do you have any views on where this may head to in the long term?

Geoff: The first thing we are doing is, we were pleased with the engagement of the 38 larger more sophisticated entities that we surveyed, and they gave us some rich information. In the first instance, we are going back to those 38 entities over the coming months with some feedback on what they gave us and trying to give some particular insights to those firms.

It's one of the great benefits when you see the system as a whole. You can do peer comparison and learn from that. We sought to do that in the information paper that was released in March. We [are] doing that with the firms.

We will be stressing more broadly to the APRA regulated flock, which numbers about 600, that we expect this risk to be incorporated into organisations' risk management framework under the guidance of CPS220, which is a cross

industry prudential standard for risk management, SPS 220 for the superannuation sector.

We would expect entities to be mindful of ASIC statements and report 593 around disclosure. We'd expect boards to think about their responsibilities in line with the Hutley opinion. So that will be starting to be embedded into APRA's normal supervisory practices.

We will continue with our domestic coordination across ASIC, APRA, and RBA through the Council of Financial Regulators Climate Change Working Group. We have been supportive of various industry initiatives that are underway. The Australian Sustainable Finance Initiative and the roadmap initiative that they are putting together, which is a very broad cross industry initiative across the banks, the insurers and the superannuation funds.

We continue to engage actively with our peer agencies internationally. This is not an Australian risk. This is a very globally connected risk. What is happening with the international standard setters, bodies within the banking arena, the investment arena, or indeed insurance. We are actively engaged in those forums and we are learning from those forums and sharing our learnings with those forums.

So yeah. There is a lot happening, but this needs to be balanced in the context of a busy time for our regulated entities with a whole pile of new and emerging risks, governance, culture, conduct, cyber, fintech, customer expectations. There's a big battle of emerging, emerged, and in some cases, accelerating risks beyond what is traditionally being thought of as core prudential risks.

Sharanjit: Yes. That's right. And trying to, as you say, see climate risk as one in a whole portfolio of risks that companies face, and CPS 220 setting out an approach to all types of risks and taking that forward.

Thank you very much, Geoff. I think this has been a really great discussion, and you've given real insights I think for regulated entities and particularly for actuaries going forward.

I do hope our audience has enjoyed the discussion. Please check out our dialogue episodes on The Actuary's Institute podcast for more thought leadership content. Write in with your questions and comments on the show. We love to hear from you and we'll get in touch.

I'm Sharanjit. Thank you very much, Geoff, and goodbye for now.

Geoff: Thank you very much.