Actuaries Institute Podcast
Title: Property insurance affordability: Challenges and potential solutions

Date: 26 November 2020
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Speakers: Rade Musulin, Kate Lyons
Duration: 25:28

Vanessa Beenders:	**Hello, and welcome to the Actuaries Institute podcast and this introduction to an important piece of thought leadership. My name is Vanessa Beenders and I am a member of the Public Policy team at the Actuaries Institute.**
Vanessa Beenders:	**The Institute has recently launched a research paper called *Property Insurance Affordability: Challenges and Potential Solutions*. This paper was prepared by the General Insurance Affordability Working Group on behalf of the Actuaries Institute. Today I am joined by the Chair of that Working Group, Rade Musulin, who is a Principal at Finity Consulting, and Kate Lyons, who led the work on affordability measurement in this paper and is an Executive Manager with Suncorp. Welcome, Rade. Welcome, Kate.**
Rade Musulin:	Thank you, Vanessa. It's great to be here.
Kate Lyons:	Yeah. Thanks, Vanessa. Good to have a chance to talk about our paper.
Vanessa Beenders:	**Kate, I'll begin with you. Why has this paper been written? Who's it for? If you could set the context, if you like, for our listeners, please?**
Kate Lyons:	Look, the affordability of insurance premiums, particularly in Northern Australia has been the focus of an ongoing ACCC inquiry, one that started in 2018, and the third report from the ACCC is coming out soon. This is a complex issue and it's been a concern probably ever since the Queensland floods back in 2010 and '11. And you may remember back in 2014, the Government Actuaries Office had a look at fair pricing in Northern Queensland. So, insurance affordability has been a problem for some time. All these inquiries and recommendations, attention and focus, haven't actually managed to find a solution and the issue is still ongoing.

Kate Lyons: So as an actuary, my theory was what gets measured gets managed. So, I wanted to develop a methodology of measuring the affordability pressure so that we can understand the drivers and enable better decision-making around the possible solutions. It kind of came about really as a breakout group from our Climate Change Working Group, because we recognised that affordability pressure could increase through a changing climate. And it's really increasingly important to address the problems now as changing climate places increased pressure on the resilience of our built environment.

Kate Lyons: I guess I'd call out too that in measuring the problem, it became clear that it's not just an insurance industry problem. Socioeconomic circumstances play a role here too, and particularly around the household income that's available to cover insurance. So, it's an issue that's broader than just the insurance industry. It's a social and economic issue, an issue for communities, businesses, insurers, and governments who all have a role to play after a community is affected by a disaster.

Vanessa Beenders: So, what is the affordability problem, if you like? How do you define it?

Kate Lyons: Well, it is complex, but it's simple. We looked at it in the context of home and property insurance, Vanessa, and we studied a number of papers on the topic and examples from other jurisdictions and how other countries have tried to solve for the insurance affordability problem, and we unraveled five primary factors that are at play.

Kate Lyons: So, one is the annual cost of the insurance premium, that risk premium and the loads that insurers charge to cover their risk and expenses. Two, the annual change in annual premiums. So, if you get an increase of 20% or 30% on your insurance policy, it can place unexpected pressure on a household budget. The third driver was really that annual cost of insurance related taxes. So, in Australia, insurance premiums include taxes and higher risk locations pay higher taxes. And those that don't buy insurance avoid taxes. So, there's taxes, stamp duties, fire service levies, and they can comprise between nine up to 30% of a retail premium at the point of sale. And it depends on which state and territory you're from.

Kate Lyons: The fourth item is the income of households. So, income can be ordinary employment income, but if you're a retiree, it could be investment income or other generated income. We wanted to also understand the household expenditures such as mortgage costs. And then the fifth driver of this affordability problem is that perceived value of insurance. There are cases where there's a

mismatch between an insurer's view of risk and a homeowner's view of risk, and those that haven't got a living memory of a cyclone or a bushfire may not really understand the risk to their particular property. So, the first of those four drivers are things that we've been able to capture in our measurement framework.

Vanessa Beenders: **Thanks, Kate. Often affordability and availability of insurance, they're talked about together, but there is a difference between those concepts, isn't it?**

Kate Lyons: Yeah, sure. So, in theory, you only need one insurer to offer a policy at any price to say there's insurance available. However, a high premium can be unaffordable for one household or affordable for another. And I think there's a real spectrum here. There's no single point at which a high premium equates to relating to unavailable insurance for all, and this is why I think it's important to understand what the drivers of affordability pressure are and what the different means of different households are.

Kate Lyons: I've seen some examples where affordability thresholds, such as a percentage of sum insured alone have been set as a threshold. But to me, there's a spectrum, and it's really a combination of available income and the risk-based pricing that needs to be understood to understand the affordability pressure. It's not a binary problem to solve.

Vanessa Beenders: **Yes. And your framework does highlight that there are degrees involved here. Before we drill down into what that framework reveals, if you like, there is a term used in the paper, the protection gap, and that's closely related then to affordability and availability of insurance. Can you define that for us?**

Kate Lyons: So when housing affordability or the cost of living pressures increase or income's reduce with unemployment, property owners may choose to allow their policies to lapse, or they may consider buying less insurance than they actually require to rebuild, and this is what gives rise to what we consider the protection gap. It's the gap that property owners have without sufficient insurance protection to recover well from loss events.

Kate Lyons: And in fact, a material protection gap can inhibit the restoration and economic recovery of a region after these disasters. And it becomes a concern, not just for the individuals, but the whole community, the governments, charitable organizations, because they're all called upon to bridge that gap through restoration and recovery of property and livelihoods after the disaster.

Vanessa Beenders: **So then coming back to that framework, how widespread is the affordability problem and what is the outlook for it?**

Kate Lyons: Vanessa, we put our measurement framework to the test and it's really easy to explain with an image and some of the images we've got in our report, but I won't go into the actual framework here. But what we did do was test our framework with Finity's nationwide database of new quotes, and some of the high-level findings were that 88% of Australian postcodes have no or low affordability pressure. So, they're postcodes where the average income can cover the cost of insurance with up to four weeks of available income. And that available income is determined looking at average incomes and then taking away costs like rent, rates, or mortgage costs, those housing costs.

Kate Lyons: We decided that if you had to pay insurance premium that costs four to six weeks of your available income, you're under medium affordability pressure. And 5% of the postcodes in our study showed this medium level of affordability pressure. And when we plotted how those postcodes sat on our framework, we found that these fit into the quadrant where there's low income or high housing costs, interest rates, taxes, and unemployment levels. So, for the medium affordability pressure, the primary driver is socioeconomics of the postcode.

Kate Lyons: When we looked at high affordability pressure where your insurance premiums are more than six weeks of your available income, the balance was 7% of the postcodes, and these mainly related to areas where you've got a combination of both socioeconomics and high insurance costs. So that was quite telling to see those postcodes plotted on a map as well.

Kate Lyons: I guess what I will say though, is these conclusions in our study were done pre-COVID, so the available income might actually be lower for some regions and some households. And I think many of us in the insurance industry are aware of the La Niña seasonal outlook, and that can have a particular impact on floods and cyclone regions. So, there may be more affordability pressure in the future.

Vanessa Beenders: **Great points there, Kate. And just to be clear for our listeners, so you were talking about weeks of income compared to the annual insurance premium.**

Kate Lyons: Yes, yes.

Vanessa Beenders: **And so, drilling down a bit further, where have you found that the affordability pressure is the most acute?**

Kate Lyons: So, those high affordability pressure postcodes that I mentioned before were across Northern Australia. They're across Western Australia, Northern Territory, Queensland, and this is quite consistent with the area of focus for the ACCC inquiry. And when

we look at which perils are contributing to the greatest insurance risk in those areas, it is cyclone and floods. So again, these are the areas that could be under more pressure after the forecast for the summer ahead of us.

Vanessa Beenders: **Thanks, Kate. I'm going to turn to Rade now and start to explore then what some of these potential solutions are. So, Rade, is there any silver bullet for this problem?**

Rade Musulin: Well, unlike 'The Lone Ranger', actuaries do not have a supply of silver bullets, unfortunately. But given that Australia faces significant natural peril risk, the current situation of a robust private market using address level technology is going to push pricing to risk-based levels, absent some government intervention, which will create pockets of affordability pressure. While mitigation can overcome some of that, it can only do so in the long run. And if we want to address affordability in the short term, there will need to be some sort of government intervention.

Rade Musulin: There's no obvious policy choice, but the purpose of our paper is to highlight some of the options available along with their pros and cons to better inform the public policy discussion of this important topic.

Vanessa Beenders: **So maybe if I can carry on the analogy with TV shows then, a colleague actually caught an expression that's used in the paper about that almost any solution involves some distribution of cost across space and/or time. And they jumped to the thought sort of the 'TARDIS'. Can you just talk us through though, because this is the crux of the problem that faces all of the stakeholders involved here, isn't it? About the distribution of cost across space and/or time. What is that?**

Rade Musulin: Well, yeah, okay. So effectively, if you think about the traditional insurance system with regard to natural disasters, important that we're not talking about maybe necessarily good or bad drivers or things like that, but in terms of natural disasters, a common technique used in the insurance industry is to collect premiums from one area and then pool those premiums with other areas that are not subject to correlated losses, and thereby reduce the amount of capital that needs to be held or to make the insurance affordable across the broader risk pool. In the case of Australia and New Zealand, we contribute premiums to the global re-insurance system and share losses with Florida hurricane and European flood and earthquakes in other parts of the world.

Rade Musulin: The private insurance system, due to accounting rules, can only spread losses temporarily, like within the current year. Because you have to effectively account for all of your losses within the

year that you write the policies, and you can't, for example, run a massive deficit in 2020 and pay it off through premiums through 2030. The regulators and accountants don't like that.

Rade Musulin: But governments often run deficits and they can borrow money today and fund things today that they then pay the funds back in the future. And they can do that because they have sovereign power to compel people to pay taxes.

Rade Musulin: And as a result, governments can spread losses in a different manner than private insurance companies can. And that's why we say that the governments can spread losses both across space, which is geographically, and time, meaning intergenerationally.

Vanessa Beenders: **And so that then brings us to this suite of options because all stakeholders can contribute something here. Maybe if we begin with mitigation then as an option, because it's probably what most people immediately think about. The paper talks about a mitigation gap, and that's an important piece of jargon that I think our listeners should understand. What is that, and how does it differ then from the protection gap that Kate explained earlier?**

Rade Musulin: Well, protection gap refers to not insuring something in the present, while a mitigation gap refers to a change in risk or risk perception over time. So, mitigation gap describes a situation where either the level or understanding of risk changes over time in a way that leaves the building inadequately protected against the level of risk it'll face in its design lifetime. For example, a building constructed at a given point in time with a 50 or 100-year design life may have been fully fit for purpose at the time of construction, but it may turn out to be inadequately protected when conditions change. This can lead to either large increases in the cost of insurance or a need to do an expensive retrofit or both, and both of those things can cause affordability pressure.

Rade Musulin: The existence of mitigation gaps is a partial explanation for the onset of affordability pressure in Northern Australia. And the concept helps explain why it's not necessarily a property owner's fault if an older structure is not constructed to today's understanding of risk, opening up the question of "Should there be some social contribution to solving that problem for someone who finds themselves in a structure that has a mitigation gap?"

Vanessa Beenders: **Are there any other considerations then about mitigation as part of a suite of potential solutions here that you'd like to add?**

Rade Musulin: Well, sure, Vanessa. I mean, minimising foreseeable mitigation gaps should be a goal of public policy, and this is why building

standards should take into account likely future condition and the stresses those structures should be able to withstand, including from natural perils over a long lifetime. Recognizing that protection against future costs generates long-term benefits with short-term costs, it's essential that cost benefit analysis take a long-term multi-decadal view. And a big challenge with mitigation is helping those undertaking it, either individual property owners or governments, measure the cost benefit of investments in mitigation over time. And one key thing we've learned in many countries is that it's less expensive to strengthen buildings at the time of construction instead of trying to retrofit them after they're built. And that's why future-proofing the building code is such an important thing for us to be able to afford to fund natural perils at levels that people can afford the premiums.

Vanessa Beenders: **Thank you. And let's now overlay then climate related risks. How does that interact or how does it impact mitigation as a potential solution?**

Rade Musulin: Well, climate risk represents a significant source of mitigation gaps. I mean, consider a house built to today's understanding of risk on a beach. Rising sea levels and stronger storms anticipated due to climate change may increase the risk such that that house will not be properly mitigated in 30 or 40 years. In some cases, such as rising sea levels, these future effects are fairly clear, and better investments in buildings, such as elevating the structure anticipating conditions 30 years in the future makes a lot of sense. You know, climate risk really requires us to think ahead when building and then really consider uncertainty and future conditions when making investments in safer housing.

Vanessa Beenders: **So that's mitigation. Let's explore some of the other solutions that are dealt within the paper. Insurance pools is one of those. Can you talk us through the considerations with those?**

Rade Musulin: Sometimes the most efficient solution to these affordability pressures is to form a pool, and many countries have done so for a variety of reasons. In some cases, such as Florida hurricane or Japan earthquake, the problem involves the size of the possible loss and the huge amount of capital required to fund it. In Florida, for example, you can have losses of $100-$150 billion, which would significantly strain the global reinsurance system. Those countries use pools to provide an inexpensive form of capital backed by government borrowing to close the gap. They spread the losses across time, potentially with bonding.

Rade Musulin: In other places such as U.K. flood, the problem was not really capital, but it was the overall level of risk to individual properties.

In those cases, governments formed pools targeted at providing a subsidy to specific groups of policy holders funded by small levies across the population, in the case of the U.K. flood in the same year, so there's no deferral into the future in that case. It's important that any government that's thinking about setting up a pool carefully consider what the underlying issue is before setting up a pool to make sure the solution fits the problem.

Vanessa Beenders: **Thank you. And just for the benefit of our listeners, there is a quite an extensive survey included in the research paper looking at, I think it's 10 examples around the world of pools. So, anyone wanting further details, please do look at the paper. So that's pools. We've also talked about mitigation. There are other solutions aside from those, so can you take us through those?**

Rade Musulin: Sure. Look, there are many non-pool methods to address affordability, some of which Kate alluded to. Perhaps the clearest example is a targeted payment to individuals with low income and high premiums, perhaps through some Centrelink mechanism to accomplish relieving affordability pressure.

Rade Musulin: Other non-pool methods include reducing taxes on insurance premiums, which Kate mentioned, community rating or risk equalisation such as New South Wales CTP or health insurance, and similar methods like that to reduce the amount of individual risk rating that causes affordability problems for specific properties. Our paper describes a number of these tools in detail, and I'd urge people who are interested to read through our paper and learn more about that.

Vanessa Beenders: **Extremely comprehensive. Thank you for covering all of those potential solutions there, but where to from here? So, I'll ask Rade first and then I'll ask Kate. What do you want actuaries, policymakers, and other stakeholders to do in light of the research that is put forward in this paper?**

Rade Musulin: Thanks, Vanessa. I'll start first. I think the key steps fall into three broad categories. I think first, in no particular order of importance, by the way, first I think we need to focus on building codes and land use policies to reduce risk in a cost-effective manner, particularly in light of climate change. Second, we need better information on affordability, including a way to measure it consistently. And finally, we need to establish what our public policy priorities are with respect to affordability, what the standards should be, and then choose measures from the public policy toolbox to achieve those goals. Hopefully our paper can provide some guidance on how public policy makers can work their way through these issues.

Vanessa Beenders: **Thanks, Rade. Kate, where to from here in your eyes?**

Kate Lyons: I think Rade's come up with three really good views there. And I think there are some real benefits to the measurement of the affordability pressure. I think it can help with that public policy prioritisation because we can identify some of the communities that are in that higher affordability pressure. And when you look at those regions, you can tell, is it a retrofitting solution required here for individual households or is it community infrastructure, levees and dams and a range of different tools to manage flood risk? It's through understanding the high areas and getting localised solutions that we could probably get better impacts.

Kate Lyons: And I do think encouraging the measurement of affordability pressure over time is important. We're all very aware of the COVID-driven recession and the impact that it may be having. But we're also aware of some of the financial stimulus that needs to be spent right now. And building stimulus could be really beneficial to creating jobs and economic growth and improving the resilience. So, I think if this measurement can help identify where to spend money to have the best impact, that would be really promising.

Vanessa Beenders: **Excellent points. Now, before I check in if you've got any final comments, either of you, I just want to acknowledge that this is very much a team effort, and I want to acknowledge all of the volunteers of the working group who have contributed to the paper. So, they are Matthew Ayoub, Steven Bell, David Chang, Simone Collins, Alison Drill, Akayla Jatheendran, Cindy Lau, Niranjan Neelakantan and Will Turvey. So, thank you from everyone at the Institute and from Rade and Kate as well I'm sure.**

Vanessa Beenders: **So, are there any final comments that, Rade, you'd like to share with listeners?**

Rade Musulin: Well, first I'd like to thank everybody for spending some time with us here and showing some interest in our work. We are hopeful that this will contribute positively to the public policy discussion around this important topic. I do think it's important to note that as we started off with, there's no silver bullets here and the solutions to these problems, we've got to be very careful that we don't do unnecessary damage to an otherwise well-functioning insurance market that is serving most Australians very well. I think that some of this stuff is rocket science. It is difficult to design these pools in a way that accomplishes public policy goals without massive side effects and unintended consequences. And I think one of the things we're hoping to do with our paper, and I know the bushfire inquiry and the ACCC report are also striving to do, is to

deliberatively study these things so we can come up with the best solutions for Australian consumers.

Vanessa Beenders: **And, Kate, any final words?**

Kate Lyons: I just wanted to encourage people in the profession or even outside the profession to join us and collaborate where the opportunities arise. I mean, this has been a really rewarding project to be part of. We had a really passionate group of contributors on this work, including a non-actuary. Thank you, Steven Bell. And it's just really rewarding to work with such a high-caliber engaged group of people, and I've really enjoyed the process. And thanks, Rade, for leading us through.

Rade Musulin: You're welcome. Thank you.

Vanessa Beenders: **So, listeners, that's all we have time for today. Thanks for joining us, Rade and Kate. It's great to hear about the research.**

Kate Lyons: Thank you.

Rade Musulin: Thank you.

Vanessa Beenders: **Listeners, we hope you enjoyed this discussion. You can find out more about the research paper by visiting the thought leadership section of the Actuaries Institute website. You can see the link in our show notes in the podcast's description. As always, please write in with your questions or comments on the show. We do appreciate hearing from you. I'm Vanessa Beenders. Bye for now.**