Chapter 5

Insurance and property finance

5.1 This chapter examines evidence received about the market for insuring and financing buildings and infrastructure, particularly for insurance products relating to residential properties. In doing so, it is noted that several recent and ongoing inquiries relating to natural disasters have examined issues regarding the pricing, availability and the terms and conditions of insurance, including the following:

- the 2009 Victorian Bushfires Royal Commission (2009–2010);
- the Queensland Floods Commission of Inquiry (2011–2012);
- the Australian Government's Natural Disaster Insurance Review (2011);
- the inquiry conducted by the House of Representatives Standing Committee on Social Policy and Legal Affairs into the operation of the insurance industry during disaster events (2012);
- the Productivity Commission's inquiry into the funding of natural disasters in Australia (2014);
- the Joint Select Committee on Northern Australia's inquiry into the development of Northern Australia (2014);
- the Australian Government's Northern Australia Insurance Premiums Taskforce (2015); and
- the current inquiry being conducted by the Australian Competition and Consumer Commission (ACCC) into the supply of residential building, contents and strata insurance in Northern Australia.

5.2 Although it did not explicitly address matters relating to climate change, the Senate Economics References Committee also completed an inquiry into matters relating to the insurance industry in 2017. Among other matters, that inquiry considered recent increases in the cost of insurance and the state of competition and transparency in the marketplace.

5.3 Following the 2010–11 Queensland floods, the insurance arrangements for state and territory government-owned assets were also reviewed.¹

¹ See Senate Economics References Committee, The asset insurance arrangements of Australian state governments, September 2011; Department of Finance and Deregulation, Review of the Insurance Arrangements of State and Territory Governments under the Natural Disaster Relief and Recovery Arrangements Determination 2011, September 2012.
5.4 Many of the issues relating to climate change that have implications for the insurance market also are relevant to property finance. Both insurers and lenders need to manage risk and prudential requirements successfully. A key point of difference is that property finance is long-term (such as 30-year mortgages) whereas regular property insurance contracts are for 12 months. Therefore, developments in short-term insurance contracts could influence long-term property lending. In particular, rising insurance premiums in areas considered at risk due to climate change will likely affect property values, with consequences for the approach taken by financial institutions to lending in those regions.

5.5 This chapter principally focuses on insurance as this received the most attention in submissions and during the committee's public hearings.

**Pricing of insurance products**

5.6 Before examining the evidence relating to climate change, it is instructive to consider how insurance products for buildings are developed and priced.

5.7 IAG explained that, fundamentally, insurance 'is a purchase for consumers to transfer certain risks to an insurer'. In offering insurance products to a customer, insurers 'identify and manage the costs of those risks to ensure there are sufficient funds to meet the cost of future claims as they arise'. In doing this, the likelihood of an event occurring that would result in the customer making a claim, and the cost of that claim, are estimated.2

5.8 IAG argued that risk-based pricing through insurance premiums 'provides an important signal to individuals and the communities of the level of exposure to risks'. IAG also advised that this is widely recognised, with risk-based price signals 'considered one of the most important roles that insurers play to assist society to respond to natural perils'. IAG advised that the Geneva Association's Risk Statement and the United Nation's Principles for Sustainable Insurance 'both call for insurers to adopt this approach internationally'.3

5.9 IAG provided the following information about how it assesses risks relating to climate change:

At IAG we have an internal team monitoring changes to the climate and we price our policies year on year for the expected risks of the following year. The long-term risks of climate change are difficult for us to model as there are no certain data. However, our internal team works to understand future climate scenarios so this information can help inform our future strategy. As weather becomes more extreme with climate change, the year on year risk will continue to increase.4

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2 IAG, Submission 56, p. 5.
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5.10 The use of risk-based pricing for determining premiums assists insurers to ensure their businesses are sustainable. Policyholders are also protected through prudential standards and supervision: the Insurance Council of Australia noted that insurers are also required to 'maintain regulated amounts of capital in order to pay claims'. The Insurance Council noted there is a tension between risk and the required amount of capital holdings; that is, the 'higher the risk of claims being lodged, the higher insurance premiums can be expected to be and the larger the capital holdings held by the insurer'.

Relationship between insurance and climate change risks

5.11 The implications of climate change are particularly relevant for insuring buildings and the contents within them. For example, rising sea levels, flooding, bushfires and storm surges could damage or destroy properties. Water-related damage, including from sewage, soil, and mud, could leave buildings contaminated and deemed uninhabitable.

5.12 Damage from extreme events already results in high costs. For example:

- the insurance losses from Cyclone Debbie are estimated to be greater than $1.6 billion, and
- the Black Saturday bushfires resulted in an estimated $1.2 billion in claims (including claims relating to property, contents and motor vehicles).

5.13 Overall, the insurance industry advised that around $9 billion is paid each year in Australia in response to insurance claims linked to extreme weather events. Without climate change scenarios being taken into account (that is, based only on factors such as changes in population size and distribution, and changes in building costs), this figure is expected to increase to $39 billion by 2050. The Insurance Council noted that the 'increasing migration and expansion of Australian communities, along with their insured assets, into locations with significant exposures to extreme weather has already contributed to growth in disaster losses'.

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6 Australian Sustainable Built Environment Council, Submission 26, p. 2.
7 National Insurance Brokers Association of Australia (NIBA), Submission 8, p. 2.
9 Mr Karl Sullivan, General Manager, Policy Risk and Disaster, Insurance Council of Australia, Committee Hansard, 23 November 2017, p. 46.
10 Insurance Council of Australia, Submission 22, p. 2.
5.14 There is also evidence indicating that climate change is worsening the insurance losses associated with extreme natural hazards. For example, Lloyd's of London has estimated that, when all other factors are held constant, the 20-centimetre rise in sea level recorded at lower Manhattan since the 1950s resulted in insured losses in New York City from Superstorm Sandy being 30 per cent higher.\(^\text{11}\)

5.15 As insurance is a product designed to manage exposure to particular risks, it follows that expected changes in risks, such as those caused by climate change, will affect insurance markets. As the Governor of the Bank of England recognised in a speech given in 2015, the insurance industry has been at the forefront of planning for climate change. Mr Carney observed:

> While there is always room for scientific disagreement about climate change (as there is with any scientific issue) I have found that insurers are amongst the most determined advocates for tackling it sooner rather than later. And little wonder. While others have been debating the theory, you have been dealing with the reality…\(^\text{12}\)

5.16 For property owners, the key issue with climate change for insurance is how the price of insurance premiums will be affected. The remaining sections of this chapter address this issue. Other issues that have previously caused concerns following extreme events, such as the meaning of terms relied on in insurance contracts, were not considered during this inquiry.

**Recent developments affecting insurance affordability**

5.17 In recent years, insurance premiums have increased significantly in parts of northern Australia. A taskforce established by the Australian Government concluded that the increased premiums follow insurers aligning premiums more closely with the risk of damage to individual properties, and that the increases in northern Australia are intended to 'more accurately reflect the high risk of damage due to cyclones'.\(^\text{13}\)

5.18 The taskforce found that the change in the setting of insurance premiums 'is not the result of any change in the behaviour of households, but has been driven by the growth in technology and competition in insurance markets and reassessments of the risk of cyclone damage'. Developments cited in support of this conclusion were:

- that more complete datasets regarding risk, greater computing power and improvements in models for estimating risks have enabled insurers to

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'increasingly set premiums on properties in northern Australia in line with the risk that the individual property brings to the pool';

- losses experienced from events such as Cyclone Yasi; and

- reassessment of catastrophe reinsurance informed by advances in catastrophe modelling—that is, insurers have reallocated a greater share of the overall cost of reinsurance to premiums in northern Australia to account for the 'higher frequency of cyclones in northern Australia than, say, earthquakes in capital cities'.

5.19 In commenting on the role of the insurance market in relation to regions that have a history of natural hazards, or are otherwise considered to be at an elevated risk of experiencing such hazards, the insurance sector highlighted how a well-functioning insurance market has assisted communities to recover from such events. For example, the Insurance Council submitted that:

> Without a sustainable insurance market, events like Cyclone Debbie would leave communities, businesses and individuals with little or no ability to recover from these frequent natural disasters. Without insurance being available, national, local and individual economies must absorb these substantial shocks and losses from within their own resources, or suffer the loss without recovery, ultimately restricting growth and development.

5.20 IAG noted that insurance 'plays an important role in keeping the general costs of post disaster recovery down'. Without a well-functioning insurance market or if insurance was to become unaffordable, IAG argued that 'the Government may be called on to cover more of the costs to rebuild communities following an extreme weather event'.

**Implications for the future affordability and availability of insurance and property finance**

5.21 As noted above, it is expected that the total amount paid in response to insurance claims each year is expected to increase from $9 billion in 2018 to $39 billion by 2050 based on factors such as changes in population size and distribution, and changes in building costs. Climate change is also expected to result in the increased frequency or intensity of extreme weather events. Accordingly, the Insurance Council observed that:

> …any potential changes to the severity and frequency of extreme weather events, brought on by climate change, will occur in an environment where

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16 IAG, *Submission 56*, p. 5.
extreme weather has already become more devastating and expensive for many Australian communities.\textsuperscript{18}

5.22 These developments are expected to have implications for the affordability of insurance. At present, the Insurance Council advised that nowhere in Australia is uninsurable, however, 'there are plenty of locations where it's costing a lot of money to insure your property compared to safer locations'.\textsuperscript{19}

5.23 The National Insurance Brokers Association of Australia (NIBA) argued that if 'the experience of insurance losses over the past 10 years continues, property insurance in Australia will start to become unaffordable'. NIBA added that many property owners in northern Queensland already face this situation.\textsuperscript{20} Lake Macquarie City Council similarly observed that the insurance premiums of at-risk properties are expected to rise due to climate change, 'potentially making insurance unaffordable for some'.\textsuperscript{21} Likewise, the National Climate Change Adaptation Research Facility (NCCARF) commented that in areas where 'risk is known and high', property owners are often underinsured or uninsured due to insurance either not being available or prohibitively expensive.\textsuperscript{22}

5.24 Evidence of significant amounts of uninsured properties and underinsured properties (that is, where the sum insured does not cover the rebuilding cost) have also been revealed in the aftermath of disasters. Following the 2009 Black Saturday bushfires, it was estimated that around '13 per cent of destroyed residential properties might have been without insurance cover'. In addition, there was 'ample evidence of under-insurance'.\textsuperscript{23} Evidence given by the Insurance Council indicated that the extent of underinsurance is clearest following bushfire events, as it is rare that other events cause a customer to reach the maximum limit of the sum insured.\textsuperscript{24}

5.25 An additional consideration is that some of the areas with a heightened risk of climate change are also areas where the cost of claims has been increasing due to higher construction and repair costs. As Mr Karl Sullivan from the Insurance Council explained, this places further upwards pressure on insurance premiums:

\begin{quote}
We recently completed a little piece of work looking at the cost of rebuilding around Australia. If you take a model home in Frankston in
\end{quote}

\begin{itemize}
\item \textsuperscript{18} Insurance Council of Australia, \textit{Submission 22}, p. 1.
\item \textsuperscript{19} Mr Karl Sullivan, Insurance Council of Australia, \textit{Committee Hansard}, 23 November 2017, p. 47.
\item \textsuperscript{20} NIBA, \textit{Submission 8}, p. 2.
\item \textsuperscript{21} Lake Macquarie City Council, \textit{Submission 29}, p. 7.
\item \textsuperscript{22} National Climate Change Adaptation Research Facility (NCCARF), \textit{Submission 28}, p. 5.
\item \textsuperscript{24} Mr Karl Sullivan, Insurance Council of Australia, \textit{Committee Hansard}, 23 November 2017, p. 50.
\end{itemize}
Victoria and say, 'This is the home that we're going to build all around Australia,' that same home will cost you 42 per cent more to build in the city of Darwin. That's because the building codes are more extensive up there to deal with the cyclone threat. But, put in very simple terms, the cost of a carpenter, a bricklayer and a roofer is much higher. The cost of all your building supplies is much higher. Their costs in terms of electricity and fuel and all the other inputs are much, much higher. If you go to Cairns it's about 30 per cent higher. If you go over to Broome, it's around 38 or 39 per cent higher. So, just taken on a like-for-like basis, a premium would be 42 per cent higher in Darwin, all things being equal—not even considering that there might be a higher frequency of cyclones.25

5.26 Furthermore, IAG noted that existing risk issues evident in some regions could spread to other areas that are considered low-risk at present, due to changes and increases in natural peril risks linked to climate change.26

5.27 As insurance premiums cover a short period, insurance customers might not appreciate the future consequences of climate change-related risks in a timely manner. Lake Macquarie City Council advised that it has 'received clear advice from the insurance industry that it does not consider future climate in determining insurance premiums as insurance policies are typically for a 12-month period, and therefore consider only the risks associated with current climate hazards'.27

5.28 In explaining this approach, the Insurance Council noted that, although insurers have access to long-term risk analysis such as projected flood mapping for 2100, the sector has to balance the costs associated with insuring the next 12 months and longer-term affordability. Mr Karl Sullivan from the Insurance Council explained:

You can imagine the outcry from the community if insurers started insuring as if those scenarios were here today. We have to strike a balancing act between what we're insuring in the next 12 months—and what those costs might be and how we might drive those down—and this longer term view about: what policies can be changed and tweaked now in a very real practical sense on the ground through development control plans and the National Construction Code to make sure that what these guys are underwriting in 80 years' time is still affordable to underwrite.28

26 IAG, *Submission 56*, p. 5.
27 Lake Macquarie City Council, *Submission 29*, p. 7. Likewise, Mr Dallas Booth, Chief Executive Officer, NIBA, noted that property insurance products are 'quite short term in focus' given policies are for 12 months only. See *Committee Hansard*, 23 November 2017, p. 49.
5.29 It was also noted that insurance policies often do not cover repairs that improve resilience, such as raising flood-affected floor levels in houses that are damaged during an extreme event.29

5.30 The management of climate risks through appropriate urban planning, defensive infrastructure and building regulations also has implications for the scale of possible damage and the size of insurance claims. For example, it was noted that a 2014 study undertaken by CSIRO concluded that at least half of the direct damage to residential housing from coastal inundation, extreme winds, bushfire and inland flooding could be avoided through proactive intervention applying well-known measures. CSIRO advised that, in present value terms, the cost of intervention is generally one-tenth of the damages avoided or less.30

5.31 The committee also received evidence suggesting that lenders are declining to provide finance for buildings in at-risk areas. Regional Development Australia – South West (RDA South West) argued that, like insurance companies, lenders are similarly using climate simulation models to calculate their exposure to risk.31

5.32 It is noteworthy that extreme weather events have resulted in insurance and lending becoming unavailable in other countries. Although such outcomes are considered rare, the Governor of the Bank of England referred to examples in the Caribbean where storm patterns meant householders could not get insurance cover. This prompted 'mortgage lending to dry up, values to collapse and neighbourhoods to become abandoned'.32

5.33 In the United Kingdom, issues with insurance affordability in high flood risk areas resulted in the establishment of a flood re-insurance scheme known as Flood Re. Under this scheme, additional insurance costs associated with a high risk of flooding are funded by a levy on the insurance industry.33

29 NCCARF, Submission 28, p. 5.
30 CSIRO, Submission 45, p. 19.
31 Regional Development Australia – South West, Submission 15, p. 8.
Responses and future directions

5.34 The Insurance Council of Australia commented that the industry is undertaking activities to assist policy makers and communities to address the implications of climate change. These activities include:

- maintaining strong prudential foundations to ensure that the industry continues to be able to respond to large extreme weather events when they occur;
- ensuring that insurance products deliver competitive price signals through risk-based pricing that assist communities and decision-makers to recognise and adapt to current and emerging extreme weather risks; and
- assisting to increase community resilience to extreme weather over time by sharing industry expertise to help policy decision-makers and the community.34

5.35 In the final report of the Northern Australia Insurance Premiums Taskforce, it was suggested that governments could provide additional funding for research to 'improve mitigation options particularly for roof strengthening and water ingress'. The Taskforce also recommended that mitigation could be enhanced through education campaigns encouraging property owners to improve the resilience of their properties, as well as through public works. The Taskforce further suggested that governments could subsidise the cost of mitigation works for low-income households.35

5.36 In its response to the Northern Australia Insurance Premiums Taskforce, the Australian Government indicated that it would not intervene directly in the insurance market and would instead proceed with reforms intended to 'place downward pressure on insurance premiums through increased accountability and transparency within the industry, as well as proposals to increase consumer understanding of insurance'. Specifically, the Government:

- urged the Insurance Council of Australia to expedite work on reforming the General Insurance Code of Practice;
- will introduce legislation to extend the unfair contract term provision in the Australian Consumer Law to insurance contracts; and
- will require the Australian Securities and Investments Commission and Treasury to undertake work that will assist consumers to understand their

34 Insurance Council of Australia, Submission 22, pp. 2–3.
insurance needs, and to enhance transparency and disclosure practices in the insurance sector.36

5.37 Despite the concerns about rising premiums, the insurance sector maintained that risk-based pricing provides a useful signal for promoting and guiding adaptation. The Insurance Council submitted that:

The insurance industry can assist governments and the community to adapt to today's residual risk and how those risks may grow into the future. The price signals offered by the market must be heeded rather than suppressed, and used to motivate targeted mitigation and building design choices.37

5.38 The ability for price signals to provide suitable incentives for individuals to manage their risk was recognised by non-industry submitters; for example, RDA South West stated that 'to some extent these market forces will manage consumer decisions better than government regulation'.38

5.39 Nevertheless, insurance industry participants are also aware that a potential outcome of risk-based pricing is that insurance products could become unaffordable for some property owners. IAG submitted that it is 'aware that responding to risk through pricing alone may affect our relationship with our customers, governments and the broader community'. To address long-term issues facing the insurance market, IAG argued there is a need for 'government and the insurance industry to align thinking and work with the community to reduce, manage and adapt to the risks they face'.39

5.40 Similarly, the Insurance Council of Australia argued that a 'new partnership between governments and the general insurance industry on climate change adaptation would assist the community'. The Insurance Council added that tools and programs it has developed could assist local governments and the community to understand how risks might increase. In particular, it referred to its Hazard DataGlobe, the Building Resilience Rating Tool, and the Property Resilience and Exposure Program. The Insurance Council explained that the latter program 'has been designed to assist local governments to identify risk hotspots in their community and to examine the cost benefits of mitigation options to reduce those risks'.40

36 The Hon Kelly O'Dwyer MP, Minister for Revenue and Financial Services, 'Government responds to Northern Australia Insurance Premiums Taskforce and General Insurance Senate Inquiry', Media release, 18 December 2017.
37 Insurance Council of Australia, Submission 22, p. 3.
38 Regional Development Australia – South West, Submission 15, p. 8.
39 IAG, Submission 56, p. 5.
40 Insurance Council of Australia, Submission 22, p. 3. See also Mr Karl Sullivan, Insurance Council of Australia, Committee Hansard, 23 November 2017, p. 49.
5.41 Another potential approach was noted by Professor Lesley Hughes, who reasoned that there might be a role for government in future to regulate insurance companies as to where 'they have a right not to insure or what they compulsorily must insure'.

5.42 It was argued that there is a need for greater coordination between different levels of government on these issues, including by governments agreeing to a 'clear and consistent strategy to mitigate the nature and extent of losses that can and do arise from major weather events that regularly occur across Australia'.

5.43 The need for information about climate and exposure risk was also recognised. From the perspective of individuals dealing with lenders, RDA South West argued that there 'should be complete transparency for home buyers on disaster risk profiles so consumers can make more informed decisions'. For the insurance industry, it was emphasised that accurate information about risk is necessary to avoid a 'contagion' effect. Sustainable Business Australia explained:

> While only a small proportion of Australian housing might be ultimately at risk of falling value due to climate change, it should be remembered that a "contagion" effect has been observed in other markets where sudden repricing of risk occurred, particularly where there is limited information available about the extent of risk throughout the market. Relatively low levels of outright losses on subprime mortgages precipitated the financial crisis. Climate change has terrible implications for both insurers, as specialists in risk, and their customers—and by extension, for society at large. In a worst-case scenario, an insurer collapsing due to unforeseen natural disaster losses would obviously result in devastating social costs, in addition to the obvious financial ones.

5.44 In the United Kingdom, the Governor of the Bank of England has urged insurers to be 'unrelenting' in pursuing improvements in risk modelling.

5.45 To address climate change risks, the Insurance Council argued that appropriate revisions to land-use planning schemes (discussed in Chapter 4) and building codes (discussed in Chapter 6) are required. In addition, it argued that 'localised defensive infrastructure' would help ensure communities are able to be maintained and insured in the future.

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41 Professor Lesley Hughes, Councillor, Climate Council of Australia, *Committee Hansard*, 23 November 2017, p. 32.
Similarly, IAG recommended that infrastructure, planning and zoning requirements be reviewed, as well as research undertaken into building codes to ensure they are adequate to meet the risks of future extreme weather events. It also argued for the continued creation of open data sets on current risks and weather patterns, and that community efforts to adapt and improve resilience should be encouraged and rewarded. 47

5.47 The Northern Territory Government also commented on these issues. It submitted that:

It may be possible in some circumstances to mitigate the impact of climate change through engineering solutions such as the construction of flood basins or diversion barriers to limit the impact of flood waters on valuable assets, thereby reducing risks, and presumably insurance premiums.

It may be beneficial to improve information, mapping and data to improve forecasts of the impact of extreme events. Reviewing or upgrading engineering and building standards, and more rigorous compliance against these may be other options. Anything that can be done to reduce the uncertainty of whether infrastructure and assets will be affected, and how they will perform when they are, is likely to minimise the upward pressure on insurance premiums. 48

5.48 Since the committee's evidence on insurance matters was received, there has been a development regarding the Australian Government's approach to improving the resilience of communities to natural disasters. In April 2018, the Minister for Law Enforcement and Cyber Security announced the creation of a Natural Resilience Taskforce to 'lead nation-wide reforms to reduce the impact and financial burden of disasters on our communities and economy'. The Minister explained that the taskforce, in consultation with the state and territory governments and the finance and insurance sectors, would 'develop a five-year national disaster mitigation framework to reduce the impact of disasters'. 49

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47 IAG, Submission 56, pp. 7–9.
48 Northern Territory Government, Submission 17, p. 12.
49 The Hon Angus Taylor MP, Minister for Law Enforcement and Cyber Security, 'Reforms to reduce impact of natural disasters in Australia', Media release, 10 April 2018.