The Senate

Economics References Committee

Carbon risk: a burning issue

April 2017

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Senate Economics References Committee

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4.42 That the government review the Corporations Act 2001 to consider whether the obligations for financial disclosure should require holistic consideration of a company's prospects, including the viability of its business model.

Recommendation 6

4.50 That the government end the uncertainty regarding climate change policy, and develop a stable and consistent policy (such as an emissions intensity scheme for the electricity sector).

Chapter 1
Introduction

1.1 On 2 February 2016, the Senate referred the matter of carbon risk disclosure to the Senate Economics References Committee for inquiry and report by 22 June 2016.

1.2 The terms of reference for the inquiry were:

Carbon risk disclosure in regard to:

a. current and emerging international carbon risk disclosure frameworks;

b. current carbon risk disclosure practices within corporate Australia;

c. Australian involvement in the G20 Financial Stability Board discussions on carbon risk impacts for financial stability;

d. current regulatory and policy oversight of carbon risk disclosure across government agencies; and

e. any other related matters.[1]

1.3 The inquiry lapsed at the end of the 44th Parliament.

1.4 On 11 October 2016, the Senate agreed to the committee's recommendation that this inquiry be re-adopted in the 45th Parliament, with a report by 31 March 2017.[2] On 30 March 2017, the Senate granted an extension to report by 7 April 2017.[3] Subsequently, the reporting date was extended to 21 April 2017.

1.5 All evidence previously received for this inquiry has been accepted as evidence for the new inquiry.

Conduct of the inquiry

1.6 In accordance with its usual processes, the committee advertised the inquiry on its website, and wrote to relevant organisations to invite submissions. Thirty-three submissions were received in the 44th Parliament, with a further six in response to the re-adopted inquiry. A list of submissions to the inquiry is at Appendix 1.

1.7 In December 2016, that is, well after submissions to the original inquiry had been received, the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures published its recommendations. These recommendations have advanced consideration of carbon risk disclosure significantly.

1.8 The committee conducted a public hearing in Sydney on 8 March 2017. The names of witnesses who appeared at the hearing are at Appendix 2.

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1 *Journals of the Senate*, No. 135, 2 February 2015, p. 3667.

2 *Journals of the Senate*, No. 9, 11 October 2016, pp. 195–197.

3 *Journals of the Senate*, No. 38, 30 March 2017, p. 1244.

Structure of this report

1.9 The report comprises four chapters, including this introductory chapter:

- Chapter 2 discusses the rationale for corporate disclosure and the need for carbon risk disclosure. It also briefly outlines Australia's exposure to carbon risk.
- Chapter 3 describes the relevant frameworks for reporting carbon risk in Australia. It summarises the relevant legislative, regulatory and voluntary reporting frameworks, and provides details of international comparators and the FSB Task Force on Climate-related Financial Disclosures.
- Chapter 4 outlines the state of carbon risk disclosure practices in Australia, and lays out options for reform.

Chapter 2

The need for carbon risk disclosure

2.1 The committee received substantial evidence about potential carbon risks. The committee accepts the analysis that the physical risks of climate change, along with the challenge of transition to a lower carbon world, present material risks to Australian businesses. The committee also notes the evidence that rapid changes in price arising from unexpected negative events (including events or trends associated climate change) can result in volatility which under some circumstances can present risks to financial stability.

2.2 This should not be taken to mean that the committee believes that all or even most of the specific risks presented to it by submitters will necessarily eventuate. This is inherent in the nature of risk. Likewise, caution ought to be exercised in assessing the scale and financial significance of these risks. The committee accepts that the most accurate pricing of these impacts is likely to be provided by the market in an environment characterised by disclosure of relevant information.

2.3 The committee considers that there are different ways that businesses can effectively respond to carbon risks, and does not consider this report to be an appropriate vehicle for dictating which particular methods should be adopted. Instead, the focus of this committee is on the *a priori* need for businesses to have strategies for managing carbon risk, that are informed by proper analysis (and disclosure of) the risks facing them.

2.4 This chapter sets out the rationale for corporate disclosure, and some of the key forms of carbon risk facing Australian businesses.

Corporate disclosure

2.5 Investors need to be fully informed about the circumstances of a company in order to make optimal decisions about where to invest. Investment opportunities can be assessed only if all the relevant information is available. As one submission puts it, 'Disclosure is the oil in the engine of the financial system'.[1]

2.6 Investors may have reasons other than profit maximisation for wanting information. For example, the ethical, environmental or distributional consequences of the actions of a company they are thinking of investing in may be material to them, regardless of financial returns.

2.7 Governments may also require information for policy or administrative reasons. For example, they may need information about carbon emissions in order to manage them or to demonstrate that they are meeting international targets.

2.8 This report considers only the financial risk associated with carbon, and only incidentally considers the values involved in amelioration of carbon emissions.

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1 Investor Group on Climate Change, *Submission 28*, p. 19.

2.9 Firms have an incentive to disclose some information in order to attract investment.[2] Further, a lot of information is available from other sources.[3]

2.10 However, there is an asymmetry in the relationship between the firm and potential investors. A firm has access to all of its operating information, whereas in the absence of disclosure investors do not know what information is available, and will incur costs in obtaining information that they seek.

2.11 There is also an agency problem. Investors generally do not play a direct role in the management of a firm. The interests of the managers of the firm do not necessarily coincide with those of the investors.[4] In particular, the time horizons of investors and directors may be quite different.[5] For example, many bonus payments for managers and directors are based on short-term performance measures.

2.12 Adequate information is also critical in supporting financial stability. At the macroeconomic level, financial stability exists when 'financial intermediaries, markets and market infrastructure facilitate the smooth flow of funds between savers and investors and, by doing so, help promote growth in economic activity'. Safeguarding financial stability involves reducing vulnerabilities in the economy, and these vulnerabilities are often associated with how financial market participants price and manage risk.[6]

2.13 Risk is measured by the likelihood that an event will happen, weighted by the consequences of its happening. Thus the risk posed by an extremely unlikely but catastrophic event may be the same as that posed by a more probable but less disastrous event.[7]

2.14 Market participants cannot price risk accurately without full information disclosure. For example, estimates of the value of an asset can be weighted by the risk of loss or damage to that asset. This requires transparency as to risk. Transparency takes the form of corporate disclosures to investors.

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2 Many of the disclosure mechanisms discussed in the next chapter work on a voluntary basis. In total they account for a large proportion of global capital.

3 The Smith School of Enterprise and the Environment, *Submission 4*, [p. 4], reports detailed studies of corporations' carbon risk from sources other than corporate reporting or carbon disclosure frameworks.

4 Paul M Healy and Krishna G Palepu, 'Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature', *Journal of Accounting and Economics*, 31, 2001, pp. 405–440.

5 Australian Centre for Corporate Responsibility, *Submission 5*, [p. 2].

6 Reserve Bank of Australia, *About Financial Stability*, http://rba.gov.au/fin-stability/about.html (accessed 25 January 2017).

7 Robert A Jaeger, *Risk: Defining It, Measuring It, and Managing It*, Evaluation Associates Capital Markets, Inc., November 2000, p.1, http://viking.som.yale.edu/will/hedge/Risk_BobJaeger.pdf (accessed 25 January 2017).

2.15 Financial stability may be threatened when events which were unanticipated or the risk of which was underestimated impact upon the economy, causing sudden, sharp price adjustments.

2.16 Because of the asymmetry and agency problems, governments have often mandated disclosure of relevant information including financial statements. The objective is to ensure that investors are able to compare the returns available to them, and to see if a firm is managed well. By ensuring that individual investors are informed, disclosure rules assist in the efficient allocation of capital throughout the economy, as well as supporting financial stability by minimising potential for rapid, destabilising price adjustments.

2.17 In addition, various bodies with interest in, or responsibility for, corporate performance also require some levels of disclosure. For example, stock exchanges and professional organisations may have such rules.

2.18 In deciding whether and how to mandate disclosure, governments—and other bodies with the power to demand disclosure—have to decide what information should be disclosed, in what level of detail, and over what time horizon.

2.19 To be useful in decision making, information disclosed by companies must be 'consistent, reliable, comparable and clear'.[8]

2.20 In recent years there has been a trend towards making disclosure more uniform, and aligning Australian financial disclosure with overseas norms, through the work of the Australian Accounting Standards Board and the adoption in 2005 of the International Financial Reporting Standards.[9]

2.21 There is some evidence that higher levels of disclosure are associated with better individual corporate performance, although it is difficult to separate the effects of disclosure from actual performance, and to allow for selection bias where voluntary disclosure is involved.[10] CPA Australia acknowledges these difficulties in reporting its own study, which also showed very positive effects from 'solid ESG practices', that is, sound practices for reporting on environmental, social and governance performance.[11]

8 Task Force on Climate-Related Financial Disclosures, *Recommendations of the Task Force on Climate-Related Financial Disclosures*, 14 December 2016, p. 2, https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf (accessed 27 January 2017).

9 Australian Accounting Standards Board, *The Standard-Setting Process*, http://www.aasb.gov.au/About-the-AASB/The-standard-setting-process.aspx (accessed 25 January 2017).

10 These seem to be problems in many of the studies cited in CDP and Climate Disclosure Standards Board, *Submission 22*, pp. 10–11.

11 CPA Australia, *Submission 33*, p. 4.

2.22 One result of improved disclosure appears to be a focusing of attention which leads to different ways of seeing things and thence to innovation and by that means to better corporate performance.[12]

What is carbon risk?

2.23 Carbon risk is a shorthand term for risks to a company from climate change. It does not refer simply to the immediate effects of climate change itself, but also to the financial effects of regulatory change or changes in expectations.

2.24 The Prudential Regulation Authority of the Bank of England has developed a categorisation of climate change risks which has been adopted in several of the submissions to this inquiry. It comprises:

- physical risks, including first-order risks of assets being destroyed by cyclones or agricultural land being rendered useless by prolonged drought, and second-order risks such as disruption to supply chains;
- transition risks, which could arise from the transition to a low carbon economy, for example the risk that it may not be possible to develop coal reserves if carbon pricing renders them uncompetitive with other sources of power; and
- liability risks, where people who suffer damage from climate change seek redress from those they believe are responsible.[13]

Physical risk

2.25 It is difficult to definitively link any specific weather event to carbon emissions. However there is a substantial and growing body of evidence documenting observed changes in weather patterns attributable to anthropogenic warming. They include increases in the number, duration and intensity of heat waves, extreme high sea levels, strong cyclonic winds and an increase in the number of extremely high rainfall events. These translate to health risks, bushfires, and flooding by both rivers and the sea.[14]

2.26 While quantification is difficult, the magnitude of the physical damage that could result from global warming is vast. The effects are already being felt:

> The number of registered weather-related natural hazard loss events has tripled since the 1980s and inflation-adjusted insurance losses from these

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12 D Aronson, 'Sustainability Driven Innovation: Harnessing sustainability's ability to spark innovation', 2013, Deloitte, available at: http://www.greenprof.org/wp-content/uploads/2013/12/Sustainability_Driven_Innovation_102513.pdf (accessed 13 February 2017), quoted in CDP and Climate Disclosure Standards Board, *Submission 22*, p. 23.

13 Prudential Regulation Authority, *The impact of climate change on the UK insurance sector*, September 2015, p. 4, available at http://www.bankofengland.co.uk/pra/Documents/supervision/activities/pradefra0915.pdf (accessed 25 January 2017).

14 Intergovernmental Panel on Climate Change, *Climate Change 2014 Synthesis Report Summary for Policymakers*, pp. 7–8.

events have increased from an annual average of around US$10 billion in the 1980s to around US$50 billion over the past decade.[15]

2.27 The damage and loss are partly due simply to the destruction of assets. However, the economic damage caused by disruption of global supply chains, such as occurred when floods in Thailand destroyed factories producing electronic components, can be at least as great.[16]

2.28 The impact of physical events can wash through the financial system. For example, losses that are claimed against insurance can lead insurance companies to refuse insurance to properties in vulnerable areas. This can reduce the value of properties, and if they are held as collateral it can lead to losses by banks. 'Fire sales' of assets by either insurers or banks could lead to further losses in either or both sectors.[17]

Transition risk

2.29 In December 2015, nearly 200 governments agreed to take action to limit the increase in the global average temperature to well below 2°C above pre-industrial levels, and to try to limit it to 1.5°C—the 'Paris Agreement'. The agreement came into force last year after it was ratified by the required number of countries. Each country will decide on particular measures to achieve the targets they have set themselves.[18]

2.30 Transition risks include the risk that regulation intended to reduce carbon emissions will reduce demand for a product. Companies could be affected by regulation in Australia but they may be more exposed to risk from the transitions away from fossil fuel taking place elsewhere.[19]

2.31 There have been various calculations of what the impact of international actions to meet the Paris targets might be. For example, two submissions suggest that for the 2°C goal to be met, 80 per cent of proven fossil fuel reserves would need to remain in the ground in order to limit emissions.[20]

2.32 Should these constraints remain unresolved by technological developments, companies may find themselves with assets whose value is impaired by changing

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15 Prudential Regulation Authority, *The impact of climate change on the UK insurance sector*, September 2015, p. 5.

16 Prudential Regulation Authority, *The impact of climate change on the UK insurance sector*, September 2015, p. 29.

17 Sandra Batten, Rhiannon Sowerbutts, Misa Tanaka (all from Bank of England), 'Let's talk about the weather: the impact of climate change on central banks', paper presented to Bank of England Conference on Central Banking, Climate Change and Environmental Sustainability, 14 November 2016, available at http://www.bankofengland.co.uk/research/Pages/conferences/1116.aspx (accessed 3 February 2017).

18 United Nations Framework Convention on Climate Change, 'The Paris Agreement', http://unfccc.int/paris_agreement/items/9444.php (accessed 23 February 2017).

19 Carbon Tracker Initiative, *Submission 9*, [p. 2].

20 The Middle Way, *Submission 3*, p. 1; Sustainable Business Australia, *Submission 32*, p. 1.

patterns of demand. This will affect not only the companies that own the assets, but also companies and funds that own shares in them.[21]

2.33 Transition risks also include indirect risks, such as the risk of reputational damage, both at a national level and for individual businesses.[22] Consumers may avoid companies and brands which are seen as not behaving responsibly.

2.34 In the extreme case, trade or other sanctions could be imposed where a country is perceived as not bearing its share of the cost of emissions reduction. The National Institute of Economic and Industry Research assesses the risk of punitive measures against Australia as greater than 50 per cent.[23]

Liability risk

2.35 In addition to physical and transition risk, further risks to companies could arise where it is found that directors of companies or trusts financially or otherwise affected by carbon risk could have, but did not, take steps to reduce their exposure to that risk or, more importantly, did not disclose that risk.

2.36 A legal opinion obtained by the Centre for Policy Development concludes:

> …it is likely to be only a matter of time before we see litigation against a director who has failed to perceive, disclose or take steps in relation to a foreseeable climate-related risk that can be demonstrated to have caused harm to a company…[24]

2.37 As noted above, it is difficult to link specific events or actions to specific climate-related events. However, it is conceivable though in no way certain that, in the future, carbon extracting and using firms could be held responsible for damage due to climate change.

2.38 The Financial Stability Board's Task Force on Climate-related Financial Disclosures, in its Recommendations Report, includes a useful summary of analyses of sectors and industries affected by climate related risks.[25]

Australian exposure to carbon risk

2.39 The committee heard evidence that as a resource dependent economy, Australia is arguably particularly highly exposed to carbon risk.

2.40 Coal is our second biggest export, after iron ore, and constitutes over 11 per cent of exports by value. Natural gas is our fifth biggest export.[26] Although

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21 CDP and Climate Disclosure Standards Board, *Submission 22*, p. 6.

22 The Middle Way, *Submission 3*, p. 1.

23 Quoted in CPA Australia, *Submission 33*, pp. 3–4.

24 Centre for Policy Development, *Submission 34*, *Attachment*, p. 22.

25 Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, p. 30, https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf (accessed 21 February 2017).

there will be some level of continuing need for coking coal, both thermal coal and natural gas are likely to see reductions in demand as the Paris targets are implemented. A submission to this inquiry asserts that 'The seaborne thermal coal market is in structural decline.' It estimates that up to US$70 billion of investment planned for the next decade in fossil fuel is unneeded, and assets could be stranded.[27]

2.41 Agriculture is also exposed to climate risk. The World Economic Forum has warned that global warming has put agricultural productivity in Australia at risk.[28] For example, modelling has suggested that an increase in average temperatures of more than 2°C would see the majority of agriculture in the Murray-Darling basin wiped out.[29]

2.42 Over 5 per cent of Australia's exports—$16 billion a year—is accounted for by 'Personal travel (excluding education) services', mostly tourism, making it the sixth biggest export.[30] Domestic tourism is also an important contributor to GDP. Specific tourist attractions like the Great Barrier Reef are endangered in the long term by climate change.[31] Tourism can be temporarily disrupted by cyclones and floods.[32]

2.43 A large component of the nation's savings is held by superannuation funds. One submission notes that 'the average Australian pension fund maintains investments in the causes of climate change, leaving it exposed to carbon risk'.[33] The UK Prudential Regulation Authority has observed that for these entities, it is not easy to deal with carbon risk by the usual methods of diversification and hedging, because the risk is systemic.[34]

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26 Department of Foreign Affairs and Trade, '*Australia's Top 25 Exports, Goods and Services, 2015–16*', available at http://dfat.gov.au/trade/resources/trade-statistics/Pages/trade-statistics.aspx (accessed 1 February 2017).

27 Carbon Tracker Initiative, *Submission 9*, p. 2.

28 World Economic Forum, *Global Risks Report 2016*, p. 51, quoted in CPA Australia, *Submission 33*, Appendix, p. 3.

29 Modelling for the 2008 Garnaut Review, quoted in Centre for Policy Development, *Submission 34, Attachment*, p. 8.

30 Department of Foreign Affairs and Trade, '*Australia's Top 25 Exports, Goods and Services, 2015–16*', available at http://dfat.gov.au/trade/resources/trade-statistics/Pages/trade-statistics.aspx (accessed 1 February 2017).

31 Allison Anderson, 'Climate change, tourism and the Great Barrier Reef: what we know', *The Conversation*, 27 May 2016, https://theconversation.com/climate-change-tourism-and-the-great-barrier-reef-what-we-know-60108 (accessed 1 February 2017).

32 David Bierman, 'Danger in paradise: resurrecting tourism after natural disasters', *The Conversation*', 4 January 2012, https://theconversation.com/danger-in-paradise-resurrecting-tourism-after-natural-disasters-3827 (accessed 1 February 2017).

33 The South Pole, *Submission 8*, [p. 4].

34 Prudential Regulation Authority, *The impact of climate change on the UK insurance sector*, September 2015, p. 51.

2.44 Small investors—self-managed superannuation funds and individuals—may be at greater risk because they do not have access even to those methods of diversification. They may not be able to purchase, or have the skills to analyse, the data that big investors use.

Chapter 3

Frameworks for reporting carbon risk in Australia

3.1 There is no single framework governing the disclosure of carbon risk in Australia. Some mandatory reporting requirements are established in corporations legislation and regulations. For certain firms, these provisions are supplemented by rules set by supervisory bodies such as the Australian Prudential regulation Authority (APRA) and the Australian Securities Exchange (ASX). Many firms also choose to sign up for voluntary disclosure frameworks. This chapter sets out these respective frameworks, before considering the position in other jurisdictions, as well as multilateral efforts to conclude a standardised framework for reporting carbon risk.

Mandatory reporting

Generally applicable provisions

The National Greenhouse and Energy Reporting Scheme

3.2 As part of its environment policy, the Australian Government has, since 2007, under the National Greenhouse and Energy Reporting Scheme (NGERS), required disclosure by entities producing high quantities of carbon emissions of a range of information including greenhouse gas emissions and energy production and consumption. Administered by the Clean Energy Regulator, NGERS requires reporting of emissions from activities under the operational control of the entity—Scope 1 or direct emissions and Scope 2 or indirect emissions such as those from consuming purchased energy or heat. Reporting of Scope 3 emissions, indirect emissions from such activities as transport not controlled by the company or from outsourced activities or waste disposal, is not required.[1]

3.3 Disclosure of greenhouse emissions is primarily designed to inform government policy and international reporting rather than to inform investors or ensure financial stability. Nonetheless this information can assist investors to gauge for themselves the degree of direct carbon risk the company is exposed to.

Annual reports

3.4 The *Corporations Act 2001* contains general disclosure provisions for the contents of annual reports that arguably require disclosure of carbon risks.

3.5 Section 299(1) requires entities to prepare an annual financial report and a directors' report:

> The directors' report for a financial year must:

1 Clean Energy Regulator, National Greenhouse and Energy Reporting Scheme, 'Assess your obligations', http://www.cleanenergyregulator.gov.au/NGER/Reporting-cycle/Assess-your-obligations (accessed 6 March 2017); the different categories of emissions are described in Investor Group on Climate Change, *Submission 28*, p. 7.

a) contain a review of operations during the year of the entity reported on and the results of those operations; and

b) give details of any significant changes in the entity's state of affairs during the year; and

c) state the entity's principal activities during the year and any significant changes in the nature of those activities during the year; and

d) give details of any matter or circumstance that has arisen since the end of the year that has significantly affected, or may significantly affect:

i. the entity's operations in future financial years; or

ii. the results of those operations in future financial years; or

iii. the entity's state of affairs in future financial years; and

e) refer to likely developments in the entity's operations in future financial years and the expected results of those operations; and

f) if the entity's operations are subject to any particular and significant environmental regulation under a law of the Commonwealth or of a State or Territory—give details of the entity's performance in relation to environmental regulation.

3.6 This requirement is added to for listed entities by Section 299A(1), which provides for an operating and financial review (OFR):

> (1) The directors' report for a financial year for a company, registered scheme or disclosing entity that is listed must also contain information that members of the listed entity would reasonably require to make an informed assessment of:
>
> a) the operations of the entity reported on; and
>
> b) the financial position of the entity reported on; and
>
> c) the business strategies, and prospects for future financial years, of the entity reported on.[2]

3.7 As the relevant regulator, the Australian Securities and Investments Commission (ASIC) is responsible for providing guidance as to the operation of these provisions. The evidence to the committee was that in the case of carbon risk disclosure, this guidance was limited.

3.8 ASIC's Report 469, for example, included the following, with a reference to Regulatory Guide 247:

> We note the recent international focus on environmental and sustainability reporting and the increasing focus on integrated reporting. We would like to remind companies of the importance of including considered risk disclosure

2 *Corporations Act 2001*, available at https://www.legislation.gov.au/Details/C2016C00922/Download (accessed 20 April 2017).

in the operating and financial review (OFR) of a directors' report, including about environmental, social and governance issues.[3]

3.9 Regulatory Guide 247 (paragraph 63) says:

> An OFR should include a discussion of environmental and other sustainability risks where those risks could affect the entity's achievement of its financial performance or outcomes disclosed, taking into account the nature and business of the entity and its business strategy.

3.10 However, the paragraph goes on to say

> For example, environmental risks that may affect an entity's achievement of its financial prospects would be more likely for an industrial entity than for a financial services entity.[4]

Directors' duties

3.11 Company directors have broad duties arising under the *Corporations Act 2001* and general law. A recent legal opinion by Noel Hutley SC and Sebastian Hartford-Davis, obtained by the Centre for Policy Development, found that company directors who fail to consider and disclose foreseeable carbon risks to their business could be held to be in breach of their duty of due care and diligence.[5]

3.12 The opinion concluded:

> There is certainly no legal obstacle to Australian directors taking into account climate changes and other sustainability risks where those risks are, or may be, material to the interests of the company.[6]

Provisions applicable to particular types of companies

Prudential regulation

3.13 Banks and other financial bodies, superannuation funds and insurance providers are also subject to supervision by APRA. These entities are arguably the ones most exposed to transition risks.

3.14 In a recent speech, an Executive Board Member of APRA, Mr Geoff Summerhayes, noted that some climate risks are financial in nature, and that many

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3 ASIC, *ASIC regulation of corporate finance: July to December 2015*, Report 469, February 2016, p. 32, http://www.asic.gov.au/media/3547422/rep469-published-26-february-2016.pdf?utm_source=landingpage&utm_medium=pdfdownloads&utm_campaign=rep469 (accessed 16 March 2017).

4 ASIC, Regulatory Guide 247, *Effective disclosure in an operating and financial review*, March 2013, p. 19, http://download.asic.gov.au/media/1247147/rg247.pdf (accessed 16 March 2017).

5 The opinion is attached to Centre for Policy Development, *Submission 34*.

6 Centre for Policy Development, *Submission 34*, [p. 26].

such risks are 'foreseeable, material and actionable now'.[7] Further, they have potential system wide implications. Mr Summerhayes said that a comprehensive understanding of system-wide risks can only be made if entities are disclosing their own risks. Investors and markets require disclosure in order to respond appropriately to risk. Climate risks would become a more important and explicit part of APRA's thinking.

3.15 In testimony before the committee, Mr Summerhayes explained the rationale for the speech:

> As relates to risks that APRA regulated entities face, it is absolutely in APRA's role to highlight those risks and ensure those conversations and assessments are happening within entities. That was the primary purpose of the speech some weeks ago—to put a marker down and flag that we expect entities to be having those conversations. What I would not want to represent is that APRA is about to roll out any additional prudential frameworks or guidance around climate related exposures. We see that our existing risk management frameworks, notably CPS 220, have been the appropriate lens through which these risks can be assessed. That particular standard calls about six specific risks: credit risks, market investment risks, liquidity risks, insurance risks, operational risks, and strategic objectives and business plans. Climate risks potentially impact every one of those…[8]

3.16 Mr Summerhayes also explained how APRA perceived its role in regulating compliance with frameworks such as CPS 220:

> APRA is predominantly a supervisory biased regulator, so while we absolutely put out prudential frameworks and standards, the majority of what we do is supervise entities through reviews of those entities, conversations with boards of those entities and with senior executives, and then we do thematic reviews on specific issues in those entities. So, if we went into an entity, as we do on a regular basis, and were to do a risk review on that entity, we would want to see, as it relates to climate, if we thought that was something appropriate for that entity—that that entity had in fact considered those risks as part of their broader risk management framework.[9]

ASX Rules

3.17 Listed entities are also subject to additional requirements by the ASX. The Australian Stock Exchange Corporate Governance Principles and Recommendations say:

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7 Mr Geoff Summerhayes, Executive Board Member, Australian Prudential Regulatory Authority, *Australia's New Horizon: Climate Change Challenges and Prudential Risk*, Speech to the Insurance Council of Australia Annual Forum 2017, 17 February 2017, http://www.apra.gov.au/Speeches/Documents/ICA%20Speech%20Geoff%20Summerhayes%2017%20February%202017.pdf (accessed 16 March 2017).

8 Mr Geoff Summerhayes, Member, APRA, *Committee Hansard*, 8 March 2017, p. 40.

9 Mr Geoff Summerhayes, Member, APRA, *Committee Hansard*, 8 March 2017, p. 40.

> A listed entity should disclose whether it has any material exposure to economic, environmental and social sustainability risks and, if it does, how it manages or intends to manage those risks.[10]

Voluntary reporting

3.18 There is a large variety of voluntary reporting frameworks. These frameworks are used to varying degrees by Australian companies. Although most are international in origin, a few are locally founded, for instance the Asset Owners Disclosure Project. There are other local initiatives such as the Australian Portfolio Carbon Working Group, an informal collaboration of the four major Australian banks.

3.19 A number of these voluntary reporting frameworks are set out below.

The Carbon Disclosure Project

3.20 The most widely used reporting framework now is that of CDP. It was formerly the Carbon Disclosure Project, and is a UK based firm which requests information from companies. It has been operating since 2000, with the initial goal of reducing emissions and therefore climate risk. In 2015 CDP collected data on 5500 companies, 300 cities and 40 sub-national governments. As well as collecting data, it scores and benchmarks the companies' performance. It works on behalf of institutional investors and large purchasing companies, who need the information to make efficient decisions.[11]

3.21 CDP requests information by way of a standardised questionnaire. It collects data on emissions, on performance in reducing emissions, and on climate change related risks and opportunities that could change a business's operations, revenue or expenditure. It also asks whether the risks and opportunities are physical risks, or related to changes in regulation or other climate-related developments.[12]

3.22 It has been estimated that CDP's data covers nearly 60 per cent of global market capitalisation and 25 per cent of global emissions.[13]

Other international frameworks

3.23 The Global Reporting Initiative developed the G4 Sustainability Reporting Guidelines which are used by 9000 organisations.[14]

3.24 The Climate Disclosure Standards Board works to standardise climate risk reporting and helps organisations to evaluate the impacts of climate change on their

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10 Australian Stock Exchange, *Corporate Governance Principles and Recommendations*, 3rd Edition, Recommendation 7.4, p. 30, http://www.asx.com.au/documents/asx-compliance/cgc-principles-temp.pdf (accessed 16 March 2017).

11 CDP and Climate Disclosure Standards Board, *Submission 22*, p. 3.

12 CDP and Climate Disclosure Standards Board, *Submission 22*, p. 12.

13 Professor Jacqueline Peel, Dr Anita Foerster, Professor Hari Osofsky and Professor Brett McDonnell, *Submission 14*, p. 5.

14 Investor Group on Climate Change, *Submission 28*, p. 7.

operations and to incorporate them in their mainstream reporting. It is a consortium of business and environmental groups formed at the World Economic Forum in 2007.

3.25 The Greenhouse Gas Protocol, convened in 1998 by the World Resources Institute and the World Business Council for Sustainable Development, brings together industry, governments and non-government organisations to develop reporting frameworks and standards. It is still the default standard in countries that have not developed their own accounting systems for greenhouse gases.[15]

3.26 The United Nations Principles for Responsible Investment or PRI, launched in 2006, refers both to the principles and to the network of 300 asset owners and 1000 investment managers who are signatories to the principles.[16]

3.27 A part of the PRI work program is the development of assessment methodologies and reports. However, the assessments are not public.[17] PRI, along with the United Nations Environment Programme Finance Initiative (UNEPFI), has developed a global statement on investor obligations and duties and a series of 'roadmaps' of Fiduciary Duty in the 21st century.[18] PRI has also developed a Global Guide to Responsible Investment Regulation.[19]

3.28 PRI and UNEPFI have sponsored the Montreal Pledge, a framework for voluntary reporting under which the 120 signatories—asset owners and investment managers managing $10 trillion in assets—measure and publicly disclose the carbon footprint of their investment portfolios.

3.29 The Asset Owners Disclosure Project works with major investors such as pension funds, insurance companies, sovereign wealth funds and universities to improve the level of disclosure in order to protect long term investments including retirement savings.[20]

3.30 The International Integrated Reporting Council has developed a reporting framework which aims to integrate sustainability factors into financial reporting.[21]

Other international approaches

3.31 Some other countries have adopted a more comprehensive approach towards regulating for the disclosure of carbon risks.

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15 Investor Group on Climate Change, *Submission 28*, p. 7.

16 UNPRI, 'About the PRI', https://www.unpri.org/about (accessed 8 February 2017).

17 'PRI Work Programme 2016', p. 5, available at https://www.unpri.org/about (accessed 8 February 2017).

18 Available at https://www.unpri.org/explore/?q=fiduciary+duty+in+the+21st+century (accessed 8 February 2017).

19 Available at https://www.unpri.org/page/responsible-investment-regulation (accessed 8 February 2017).

20 CDP and Climate Disclosure Standards Board, *Submission 22*, p. 17.

21 Investor Group on Climate Change, *Submission 28*, p. 7.

The United States

3.32 The United States Securities and Exchange Commission issued guidance in 2010 on how its existing general disclosure requirements should apply to climate change matters.[22] The status quo was that disclosure was required for material matters, and the standard for materiality was 'if there is a substantial likelihood that a reasonable investor would consider it important in deciding how to vote or make an investment decision'. This was already taken to include the costs of complying with environmental laws and any impending environmental litigation, and to include disclosure of risks.[23] The 2010 guidance makes explicit that the costs of complying with local and overseas regulation should be disclosed, and includes not only those directly affected but also users of the products of those companies, the prices of which might rise. It also points to changes in markets, which may present new risks and opportunities; reputational risk; and the risk of actual physical damage.[24] These provisions apply to public companies.

France

3.33 The Energy and Ecology Transition Law of 2015 requires listed companies and institutional investors to disclose not only their carbon emissions but also their exposure to carbon risk. The legislation sets emissions targets, and listed companies have to include in their annual reports the impact on climate change of their activities and the impact the consumption or use of their products will have, and their exposure to transitional risks, for example in their supply chains or changes in international regulation. Institutional investors have to report on their contribution to meeting French and international emissions targets, which may include changes in their activities or divestment of certain assets. They also have to report on the exposure of their assets to carbon risk, both physical and transitional, and detail the stress testing they have undertaken to assess their portfolio risk.[25]

The United Kingdom

3.34 In 2013 new regulations under the Companies Act provided for large and medium-sized listed companies to publish a strategic report which reports, to the extent necessary for an understanding of the company's operations, on environmental matters (among others), including the impact of the company's operations on the environment.[26] It also requires a directors' report which includes disclosure of

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22 Securities and Exchange Commission (SEC), *Commission Guidance Regarding Disclosure Related to Climate Change*, https://www.sec.gov/rules/interp/2010/33-9106.pdf (accessed 9 February 2017).

23 SEC, *Commission Guidance Regarding Disclosure Related to Climate Change*, pp. 11, 13–14.

24 SEC, *Commission Guidance Regarding Disclosure Related to Climate Change*, pp. 22–27.

25 Professor Jacqueline Peel and others, *Submission 14*, pp. 8–9; CDP and Climate Disclosure Standards Board, *Submission 22*, p. 15; Investor Group on Climate Change, *Submission 28*, p. 10.

26 Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, section 414C, http://www.legislation.gov.uk/ukdsi/2013/9780111540169 (accessed 10 February 2017).

greenhouse emissions including emissions from both direct activities and the purchase of electricity, heat, steam or cooling. As well as describing the methodologies used, the report 'must state at least one ratio which expresses the quoted company's annual emissions in relation to a quantifiable factor associated with the company's activities'—that is, it must give some basis for comparison of emissions intensity.[27]

The European Union

3.35 In 2014 the European Parliament strengthened the disclosure requirements applying to companies and other 'public interest entities' with 500 or more employees. They are now required to disclose policies, risks and outcomes related to environmental matters including greenhouse gas emissions (among other social and governance matters).[28] National governments are required to put in place regulatory regimes to ensure consistent reporting requirements.[29]

The Task Force on Climate-related Financial Disclosures

3.36 In April 2015 the G20 group of nations requested the Financial Stability Board to review how the financial sector can take account of climate-related issues.

3.37 The Financial Stability Board is an international organisation whose goal is to promote world financial stability. It works with financial authorities and standard-setting bodies to achieve strong supervisory and regulatory policies and consistent implementation of those policies. In response to the G20's request, it identified the need for better information to support informed investment, lending and insurance underwriting decisions.[30]

3.38 In late 2015, it established a Task Force on Climate-related Financial Disclosures (the Task Force):

> The Task Force will consider the physical, liability and transition risks associated with climate change and what constitutes effective financial disclosures in this area. It will seek to develop a set of recommendations for consistent, comparable, reliable, clear and efficient climate-related disclosures.[31]

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27 Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, Part 7, 'Disclosures Concerning Greenhouse Emissions'.

28 Investor Group on Climate Change, *Submission 28*, p. 10.

29 Directive 2014/95/EU of the European Parliament and of the Council, 22 October 2014, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095, (accessed 10 February 2017).

30 Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, p. iii, https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf (accessed 17 February 2017).

31 Financial Stability Board, 'FSB to establish Task Force on Climate-related Financial Disclosures', press release, 4 December 2015, http://www.fsb.org/wp-content/uploads/Climate-change-task-force-press-release.pdf (accessed 16 February 2017).

3.39 The Task Force was chaired by Michael R Bloomberg, chief executive of a global financial services company. Its membership comprised:

- four vice-chairs, respectively from a bank, an insurance company, a manufacturer and a stock exchange;
- 12 'data users', from the investment industry including banks and pension funds;
- seven 'data preparers', from companies with significant environmental impacts;
- seven 'other experts', from consulting companies and ratings agencies; and
- a 'special advisor' from HSBC.[32]

3.40 The audience for the Task Force's work is companies who need to know what information is wanted by interested parties, including investors, lenders and insurers, in order to make good decisions. The Task Force aimed to make recommendations that all organisations would be able to respond to. It should be possible to incorporate the recommended disclosures in company financial reporting. The information the recommendations elicited would be 'decision-useful' and forward looking. There would be a strong focus on risks and opportunities presented by the transition to a low-carbon economy.[33]

Recommendations of the Task Force on Climate-related Financial Disclosure

3.41 The Task Force published its Recommendations Report in December 2016. The format of the recommendations is four general recommendations, each of which is followed by a list of recommended disclosures.

3.42 The general recommendation on **Governance** is: Disclose the organisation's governance around climate-related risks and opportunities. The recommended disclosures of governance are:

- describe the board's oversight of climate-related risks and opportunities; and
- describe management's role in assessing and managing climate-related risks and opportunities.

3.43 The general recommendation on **Strategy** is: Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning. The recommended disclosures of strategy are:

- describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term;

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32 Task Force on Climate-related Financial Disclosures, 'Task Force Overview', https://www.fsb-tcfd.org/about/# (accessed 16 February 2017).

33 Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, p. iii, https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf (accessed 17 February 2017).

- describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning; and
- describe the potential impact of different scenarios, including a 2°C scenario, on the organisation's businesses, strategy, and financial planning.

3.44 The general recommendation on **Risk Management** is: Disclose how the organisation identifies, assesses, and manages climate-related risks. The recommended disclosures of risk management are:

- describe the organisation's processes for identifying and assessing climate-related risks;
- describe the organisation's processes for managing climate-related risks; and
- describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.

3.45 The general recommendation on **Metrics and Targets** is: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities. The recommended disclosures of metrics and targets are:

- disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process;
- disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas emissions, and the related risks; and
- describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.[34]

3.46 These recommendations are probably not controversial among those who have been involved in carbon risk disclosure. The real value of the Task Force may be in 'awareness-raising for climate-related topics among investors, government organisations and businesses.'[35]

3.47 The Recommendations Report recommends voluntary reporting. However, if these requirements were included in rules such as stock exchanges' listing rules, they would in effect become mandatory.

3.48 The Recommendations Report is explicit that the recommendations are not a final answer:

> The Task Force's recommendations provide a foundation for climate-related financial disclosures and aim to be ambitious, but also practical for near-term adoption. The Task Force expects that reporting of climate-related risks and opportunities will evolve over time as organizations, investors,

34 Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, p. 16, https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf (accessed 17 February 2017).

35 Chartered Accountants Australia and New Zealand, *Submission 12*, p. 3.

and others contribute to the quality and consistency of the information disclosed.[36]

The Task Force on Climate-related Financial Disclosures and scenario analysis

3.49 A section of the Recommendations Report of the Task Force on Climate-related Financial Disclosures is devoted to scenario analysis.[37] As well as the section in the main report, there is a Technical Supplement which gives more detail.[38]

3.50 In particular, the report suggests that organisations should model what might happen to them in the circumstances where action is taken to limit global temperature rise to 2°C, that is, the less challenging of the Paris Agreement goals.

3.51 While the report says that it is important that all organisations consider 'a basic level of scenario analysis in their strategic planning and risk management processes', it also suggests different types of analysis depending on the kind of exposure and the level of experience in scenario analysis. Resource intensive organisations with high greenhouse gas emissions should model their transition risks because of their exposure to policy actions, subsidies or taxes, and market changes aimed at energy efficiency. Similarly, organisations exposed to climate change because they have long-lived fixed assets located in climate sensitive regions or relying on water supply (or with parts of their value chains so exposed) would do well to model physical risks. Organisations that are new to scenario analysis may begin with a qualitative discussion of how the organisation's strategies might change under various scenarios.[39]

3.52 The report suggests that scenario analysis—including a description of how and why the scenarios have been chosen and developed—should be reported in the organisation's mainstream financial reporting. This would be a change from most current reporting practice, which focuses on past performance and short term forecasts.

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36 Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, p. 4.

37 Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, pp. 26–32.

38 Task Force on Climate-related Financial Disclosures, *The Use of Scenario Analysis in Disclosure of Climate-related Risks and Opportunities*, 14 December 2016, https://www.fsb-tcfd.org/wp-content/uploads/2016/11/TCFD-Technical-Supplement-A4-14-Dec-2016.pdf (accessed 20 February 2017).

39 Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, pp. 28 –31.

Chapter 4

The case for change

4.1 This chapter sets out the evidence regarding the operation of the carbon risk disclosure frameworks set out in Chapter 3, before considering options for reform.

The state of carbon risk reporting in Australia

4.2 The evidence to this committee was that carbon risk reporting was not sufficiently prevalent amongst Australian firms, and that when information was provided it was often of variable quality.

4.3 One submitter summarises the situation as follows:

> Research by myself and others suggests that Australian companies are currently lagging behind competitors and trading partners in their treatment and response to carbon and climate risk. For Australian large companies reporting gaps include scale, coverage, completeness, materiality, relevancy and currency…[1]

The prevalence of reporting

General disclosure

4.4 WWF–Australia notes in its submission that its 2015 comparison of the top three Australian insurance companies with three global peers found that the Australian insurers made disclosures that were less specific than the overseas insurers and less linked to mainstream reporting. They were also less likely to mention a 2°C scenario; and they were less likely to include goals for reducing exposure to climate risk.[2]

4.5 Likewise, a 2015 study by Ernst and Young which found that all of the ASX 100 companies were reporting on sustainability, but only 50 were assessing the materiality of the factors they reported on. Only two companies assessed in that study, BHP Billiton and AGL, appear to have disclosed the results of scenario analysis.[3] In addition, several companies have incorporated some version of a carbon price in their calculations for the future, though this is not necessarily disclosed in company reports.[4]

4.6 Market Forces assessed 25 listed Australian fossil fuel companies and found that 10 of the 25 failed to address the science of climate change at all, and only six

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1 Mr Gareth Johnston, *Submission 18*, [p. 3].

2 WWF–Australia, *Submission 15*, pp. 6–7.

3 Market Forces, *Submission 37*, [p. 4].

4 Ms Emma Herd, Chief Executive Officer, Investor Group on Climate Change, *Committee Hansard*, 8 March 2017, p. 4; Dr John Purcell, Policy Adviser Environment, Social and Governance, CPA Australia, *Committee Hansard*, 8 March 2017, p. 10; Mr Daniel Gocher, Analyst, Market Forces, *Committee Hansard*, 8 March 2017, p. 35.

acknowledged climate change as a material business risk.[5] This is consistent with an earlier study of companies in the Australian resources sector which found that only 13 per cent had policies, plans or practices in place to assess or manage climate risk.[6]

4.7 Market Forces tracks disclosure by superannuation funds. It found that the median fund discloses only 50 per cent of its equities holdings and less than 20 per cent of their entire portfolio. Further, only six superannuation funds (representing 10 per cent of superannuation assets) have committed to the Montreal Pledge, and only two actually disclose their carbon footprint in their annual report.[7]

4.8 Analysis undertaken in 2014 by Net Balance Foundation of disclosures by ASX 200 companies found that the amount and detail of climate risk disclosures made through CDP is far greater than through mainstream company reports. Net Balance suggested that differences between CDP reporting and mainstream reporting may indicate that companies do not regard climate risk as material risk. The analysis also found that, while the findings for Australian companies were similar to the UK and the US, fewer Australian companies identify supply chain risks, although they are probably just as great as elsewhere.[8]

The National Greenhouse and Energy Reporting Scheme

4.9 Under NGERS, entities producing more than 25,000 tonnes of carbon dioxide equivalent from a facility, or 50,000 tonnes from a corporation, have to report their emissions. In 2015, 400 corporations reported around 322 million tonnes of carbon dioxide. At present around 60 per cent of Australia's recorded emissions are captured.

4.10 The scheme does not include emissions from the agricultural or household sectors or transport emissions from private vehicles, nor emissions via equity ownership (Scope 3 emissions).[9] Further, it has been argued that current thresholds for reporting mean that emissions which may have material financial implications are excluded.[10]

CDP

4.11 In 2015, 390 companies operating in Australia, including 94 ASX 200 companies, reported greenhouse emissions and other climate change information through CDP. Of the ASX 200 companies, 85 per cent reported regulatory risk, 76 per cent reported physical risk, and 73 per cent reported other risk. Of the reporting companies, 28 of the 94 were financial companies, and 23 were in materials.

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5 Market Forces, *Submission 37*, [p. 3].

6 Professor Jacqueline Peel and others, *Submission 14*, pp. 6–7.

7 Market Forces, *Submission 23,* [pp. 9–10].

8 Net Balance Foundation and CDP, *Disclosures on climate risk: A review of ASX top 200 companies*, https://static1.squarespace.com/static/52045752e4b0330b6437dade/t/542b2db6e4b0490889d531ab/1412115894293/ClimateRiskASX200.pdf (accessed 20 April 2017).

9 Investor Group on Climate Change, *Submission 28*, pp. 13–14.

10 The Climate Institute, *Submission 31*, [p. 1].

The proportion of Australian companies reporting through CDP is lower than in Europe or the US.[11] There has been no increase in the number of companies reporting since 2010, and an actual fall (from 103 in 2014 to 90 in 2015) in the number of ASX 200 companies reporting.

The quality of reporting

4.12 A large number of submissions suggested that carbon risk reporting in Australia was inadequate, especially in the light of the growing demand for good information among asset owners such as superannuation funds.

4.13 As the Investor Group on Climate Change says:

> For investors assessing company performance, key dimensions of carbon risk are chronically underreported, ill-defined, incomplete, immaterial, out of date, or inconsistently disclosed.[12]

4.14 Current disclosures are not considered sufficient. 350.org observed:

> The institutions that we work with repeatedly cite barriers to reducing their exposure to climate investment risks due to the wider financial community's lack of disclosure, awareness and appreciation of unburnable carbon as a measurable and serious investment risk.[13]

4.15 The submission by ANZ notes that:

> …for reporting to be useful, disclosure frameworks must generate comparable and consistent reporting. At present, there is no single framework being used by companies to report their carbon risks…Rather, carbon risk reporting varies in its scope between companies, making it difficult for stakeholders to undertake peer assessments.[14]

4.16 The best data available is that collected under the NGERS. It was pointed out that reporting of carbon emissions is not the same as reporting exposure to carbon risk.[15] There is also concern that the information there is does not map to financial reporting:

> There is no shortage of information on individual company emissions available to stakeholders. However, it is the application of this information to financial metrics that has resulted in significant confusion and, in some cases, misleading conclusions. Analysis of climate change risk is often presented in ways which allow for easy, but meaningless, comparisons between companies and sectors.[16]

4.17 Further, the data that is provided is incomplete:

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11 Professor Jacqueline Peel and others, *Submission 14*, p. 9.

12 Investor Group on Climate Change, *Submission 28*, p. 15.

13 350.org Australia, *Submission 3*, p. 2.

14 ANZ, *Submission 27*, [p. 1].

15 Financial Services Council, *Submission 17*, p. 3.

16 AGL Energy, *Submission 19*, p. 3.

> BHP, and other ASX listed companies, provide information on its Scope 1 and 2 carbon emissions. However, the real risk in terms of stranded assets relates to the extent of Scope 3 emissions, being emissions that are produced from burning fossil fuels extracted by the reporting company.[17]

4.18 The data is not comparable across companies:

> Whilst the majority of ASX 200 companies provide some detail on the scope 1 and 2 emissions profile of the business there is too often little discussion on the broader implications of this for the business, for instance, the company's ability to decarbonise and over what timeframe relative to the transition of the broader economy and with sufficient urgency given the climate science.[18]

4.19 There were concerns about the quality of some of the data. The Investor Group on Climate Change noted shortcomings with timeliness, and also with a lack of detail which would make it possible to draw conclusions about a particular facility such as a mine. It also noted that current reporting focuses on historical performance data rather than being forward looking.[19]

The committee's view

4.20 The committee agrees with submitters that there are significant opportunities to improve carbon reporting, and that improved reporting would benefit businesses, investors and the economy. There should be better disclosure of carbon risks by more Australian firms.

4.21 The committee believes that the best way to achieve this is building on the existing regulatory framework governing corporate disclosures. Carbon risk is a business risk, and it is important for it to be treated as such. Consideration of a firm's carbon emissions is not just a question of ethics—it is a question of good business judgment.

4.22 As such, although organisations such as CDP have done good work in laying the groundwork for wider disclosure, the committee does not believe that it is appropriate for carbon disclosure to be undertaken on an exclusively voluntary basis. A voluntary disclosure regime would not be accepted for firms exposed to significant sovereign risk, or currency risk. It should not be accepted for firms exposed to climate change.

4.23 Likewise, the committee does not believe it would be appropriate to extend the operation of NGERS to capture carbon risk more broadly. NGERS was designed for a very different purpose. Accounting for the risk arising from carbon is categorically different from the accounting of carbon emissions themselves. There is no compelling reason to exempt carbon risk from the network of reporting obligations and responsibilities that the law imposes on corporations and those who run them.

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17 Environment Justice Australia, *Submission 21*, p. 6.

18 Regnan, *Submission 16*, p. 3.

19 Investor Group on Climate Change, *Submission 28*, p. 16.

4.24 The question, accordingly, is how to refine the existing financial disclosure system to improve the disclosure of carbon risk by Australian firms.

Further guidance from regulators

4.25 The committee notes the legal opinion by Noel Hutley SC and Sebastian Hartford-Davis that directors may be liable for failure to consider and disclose foreseeable climate risks. Based on the evidence provided to the committee, some Australian companies may not be adequately responding to this aspect of their responsibilities. The committee believes this gap is attributable in part to the need for more guidance from the financial regulators.

4.26 As one witness told the committee:

> So under the Corporations Act and under the ASX there are requirements to report material ESG risks—environment, social and governance risks—for company performance, but there is very little guidance or clarity as to how that pertains specifically to the issue of climate change and climate risk from a financial perspective.[20]

4.27 Another witness asserted that

> …we know from our own research that the vast majority of Australian companies and superannuation trustees do not recognise climate change as a material business risk.[21]

4.28 As Mr Summerhayes noted in his speech, '…while climate risks have been broadly recognised, they have often been seen as a future problem or a non-financial problem'.[22]

4.29 The requirements for disclosure under ss299(1) and 299A of the Corporations Act 2001 are broad. The committee believes clearer guidance from ASIC is needed for the requirements to have practical force for many companies. The existing guidance (such as INFO 203 regarding impairment of non-financial assets) is incomplete or out of date.

Recommendation 1

4.30 That the Australian Securities and Investments Commission review its guidance to directors to ensure that it provides a proper understanding of the manifestations of carbon risk, and reflects evolving asset measurement implications of carbon risk.

4.31 The committee notes the comments by APRA at the public hearing, and considers that its stated approach to addressing the issue of carbon risk with its regulated entities is both appropriate and in line with its prior practice.

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20 Ms Emma Herd, Chief Executive Officer, Investor Group on Climate Change, *Committee Hansard*, 8 March 2017, p. 3.

21 Mr Daniel Gocher, Analyst, Market Forces, *Committee Hansard*, 8 March 2017, p. 30.

22 Mr Geoff Summerhayes, *Australia's New Horizon: Climate Change and Prudential Risk*, speech to the Insurance Council of Australia, 17 February 2017.

4.32 The committee considers, however, that there is scope for the ASX to provide further guidance to listed entities.

Recommendation 2

4.33 That the Australian Stock Exchange provide guidance regarding the circumstances in which a listed entity's exposure to carbon risk requires disclosure under Recommendation 7.4 of the Australian Stock Exchange Corporate Governance Principles and Recommendations.

Law reform

Clearer requirements to disclose carbon risk

4.34 The committee notes the suggestion from submitters that s299(1)(f) should be amended to specifically require disclosure of climate-change and carbon risks. The committee considers that firms are already required to disclose these risks under the general provisions in ss299(1) and 299A, and that it now falls to regulators to issue appropriate guidance.

4.35 However, the committee notes that the final report from the FSB Task Force on Climate-related Financial Disclosures is due to be issued this year. The market would benefit from a coordinated approach between the different regulatory stakeholders.

4.36 The committee has observed during the course of this inquiry that there is a lack of clarity about which arm of government should have primary responsibility for ensuring there is proper disclosure of carbon risk, and responding to the Task Force's recommendations. The committee notes the overlapping spheres of responsibility of Treasury, APRA, ASIC, and the Reserve Bank of Australia.

Recommendation 3

4.37 That the government nominate a single government entity to have primary responsibility for coordinating the response to the recommendations of the Financial Stability Board Task Force on Climate-related Financial Disclosures.

Recommendation 4

4.38 That the government commit to implementing the recommendations of the Financial Stability Board Task Force on Climate-related Financial Disclosures where appropriate, and undertaking the necessary law reform to give them effect.

Broader financial disclosure

4.39 The committee notes the evidence to this committee that aspects of the existing corporate disclosure framework may be unduly narrow. CPA Australia gave evidence, for example, that s299A operates:

> …very much in financial terms. It looks at prospective events and future activities and how they may affect financial earnings. What we would argue is that the language needs to shift away from a concentration on impact on financial earnings to a more holistic approach as to how director assessment

> of future events impacts upon the business model—the viability of the organisation as a whole.[23]

4.40 The committee considers that there is some merit to the proposition that disclosure should encompass more than immediate financial performance. Investors would benefit from firms' considering the viability of their business model, and disclosing how their activities may impact their social licence to operate. Evidence from CPA Australia suggested that other parts of the *Corporations Act*, such as portions of s1013D regarding the contents of a product disclosure statement, could inform a redrafting of s299A.

4.41 The committee notes, however, the evidence from CPA Australia that although firms are not expressly encouraged to do so at the moment, there is also no significant impediment.[24] The committee also notes that any expansion of the obligations under s299A would have to be accompanied by a consideration of the adequacy of the protections afforded to directors and officers who make reasonable mistakes when acting in good faith. The committee notes the evidence of CPA Australia that the defences at s731 (for due diligence) and s732 (for a reasonable lack of knowledge) could play a part in ameliorating harsh results for responsible directors, but considers that these questions of detail are a proper subject for law reform.

Recommendation 5

4.42 That the government review the *Corporations Act 2001* to consider whether the obligations for financial disclosure should require holistic consideration of a company's prospects, including the viability of its business model.

The need for carbon policy certainty

4.43 Finally, it is impossible to consider carbon risk without also considering the current uncertainty regarding climate change policy in Australia.

4.44 In December 2015, Australia made commitments at the United Nations Conference of the Parties meeting at Paris to meet certain carbon emission targets. Present government policy does not provide a clear path to meeting these targets. The result is confusion and uncertainty for businesses and investors alike as to what form climate change policy could take, and the effect it could have on their industries.

4.45 The uncertainty created by the government having vacated the field does not just make it more difficult for companies to disclose carbon risk—the uncertainty itself is a carbon risk.

4.46 Witnesses have told the committee how businesses and investors have been forced to fill in the gaps left by the government's inaction. As one witness explained:

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23 Dr John Purcell, Policy Adviser, Environmental, Social and Governance, CPA Australia, *Committee Hansard*, 8 March 2017, p. 12.

24 Dr John Purcell, Policy Adviser, Environmental, Social and Governance, CPA Australia, *Committee Hansard*, 8 March 2017, p. 12.

> [The inaction] increases the level of uncertainty associated with the financial risks attributed to the carbon. You end up with a situation where, for an investment perspective, investors and often banks are and other forms of lending are applying their own carbon price anyway, as a stress-testing parameter.[25]

4.47 A submission commented:

> Despite the Australian government discontinuing its carbon pricing mechanism, around a quarter of companies use an internally determined price per tonne of carbon to guide their investment decisions.[26]

4.48 The committee believes the government should end the uncertainty by outlining a clear policy for transitioning Australia to a low carbon future, such as the adoption of an emissions intensity scheme for the electricity sector.

4.49 The committee notes that at the time of writing, notable supporters of an emissions intensity scheme include Snowy Hydro, the Business Council of Australia, BHP, AGL, EnergyAustralia, the National Farmers Federation, Origin Energy, the Australian Energy Markets Commission, the CSIRO, Energy Networks Australia, the Chief Scientist, the Climate Change Authority, the Clean Energy Finance Corporation, as well as numerous state and territory governments.

Recommendation 6

4.50 That the government end the uncertainty regarding climate change policy, and develop a stable and consistent policy (such as an emissions intensity scheme for the electricity sector).

Senator Chris Ketter
Chair

25 Ms Emma Herd, Chief Executive Officer, Investor Group on Climate Change, *Committee Hansard*, 8 March 2017, p. 4.

26 South Pole Group, *Submission 8*, [pp. 3–4].

Additional comments by the Australian Greens

Time to pull our head out of the sand

1.1 Ten years ago, Nicholas Stern called climate change 'the greatest market failure the world has seen'. That this inquiry has been conducted illustrates that the market's failure has now become a government failure to adequately respond to the magnitude of the problem.

1.2 There is no better example in the world of government failure than here in Australia where, under the Coalition Government, a price on carbon has been abolished and the pathway to meeting our commitments under the Paris agreement is nowhere to be seen.

1.3 This inquiry has shown that elements of the Australian corporate sector—the purported beneficiaries of the government's intransigence—are now out ahead of the government. It is the corporate sector that is advocating for a realistic and prudent approach to carbon risk and to the disclosure of this risk to the market. The Chair's report sets out the logic of this approach in stating that:

> …the most accurate pricing of these impacts [climate risks] is likely to be provided by the market in an environment characterised by disclosure of relevant information.

1.4 Climate risk is a vast and urgent problem without precedence. Smart businesses know that the risk is real and present. Smart investors are taking climate risk into account. Smart executives know that that they are already liable and that it's only a matter of time before this liability is brought to bear. APRA Member, Geoff Summerhayes, recently made this point in no uncertain terms.

1.5 However, seeking a 'first mover advantage' in carbon risk disclosure is itself a risk. Responsible corporates have indicated they will accept carbon risk disclosure requirements so long as the playing field is level. What is missing is clear— uniform and mandatory standards. It is the responsibility of government to step into the breach, to set the parameters, and to enable the collective will.

1.6 The Chair's report provides a good summary of this inquiry's findings and includes some sound recommendations. However, the enormity of the problem requires a bolder approach and needs to demonstrate the preparedness of the Parliament to act decisively. There is a financial imperative, an economic imperative, and, frankly, an existential imperative to act decisively and to act now.

Price the externalities

1.7 The primary failure of the market is the failure to address the negative externalities arising from carbon pollution. The Australian Greens believe that putting a price on carbon pollution is integral to both mitigating the effect of climate change and to better disclosing carbon risk. A price on carbon makes accounting for climate pollution as natural as accounting for all other costs of doing business. A price on carbon would provide a uniform measure of greenhouse gas emissions that can be traced through the production chain and the investment chain.

Recommendation 1

1.8 The government reintroduce a price on carbon pollution.

Recommendation 2

1.9 The government require that annual public reporting by Australian companies include the price paid for carbon pollution and the associated greenhouse gas emissions, including from global operations and interests.

Set the standards

1.10 The Financial Systems Board (FSB) Task Force on Climate Related Financial Disclosure promises to deliver a strong framework for carbon risk disclosure, as indicated by the draft recommendations of the Task Force. The involvement of Australian financial regulators in this project necessitates that the recommendations of the FSB be the least the Australian Government commits to. The government should make this commitment unconditionally to help ensure that the work of the FSB becomes a minimum international standard.

Recommendation 3

1.11 The government commit to bringing into effect the recommendations of the Financial Systems Board Task Force on Climate Related Financial Disclosure without exception.

1.12 Notwithstanding the recommendation to commit to the outcomes of the FSB Task Force, the Australian Greens believe that the evidence heard during this inquiry requires an immediate and pre-emptive response.

1.13 Specifically, the government should set standards for definition of and reporting of carbon risk. These standards should be built into existing public reporting requirements of all public companies, and proprietary companies with large carbon risk exposures. Reporting against these standards should be mandatory by default. Exemption from carbon risk reporting should be the exemption rather that the rule.

Recommendation 4

1.14 The Council of Financial Regulators develop a standard definition of 'carbon risk' for the purposes of disclosure that incorporates policy, technological, market and physical risk dimensions.

Recommendation 5

1.15 The Council of Financial Regulators develop guidelines for mandatory annual public reporting of carbon risk by Australian public companies and by proprietary companies with financially material carbon risk exposures.

Recommendation 6

1.16 Amend the National Greenhouse and Energy Reporting Scheme to include public disclosure of equity exposures above a materiality threshold.

Recommendation 7

1.17 Amend the National Greenhouse and Energy Reporting Scheme to increase Scope 3 emissions reporting and disclosure where they are a financially material component of a company's carbon risk.

Recommendation 8

1.18 Require industry and financial regulators to develop guidelines for stress testing scenarios for different levels of global warming.

Senator Peter Whish-Wilson
Senator for Tasmania

Appendix 1

Submissions, tabled documents and answers to questions on notice

Submissions received in the 44th Parliament

1 Mr David Archibald
2 Mr Joseph Poprzeczny
3 350.org Australia
4 Smith School of Enterprise and Environment, University of Oxford
5 Australasian Centre for Corporate Responsibility
6 The Middle Way Pty Ltd
7 KPMG
8 South Pole Group
9 Carbon Tracker Initiative
10 Client Earth
11 Dr Swati Nagpal
12 Chartered Accountants Australia and New Zealand
13 Australian Securities and Investments Commission
14 Professor Jacqueline Peel, Dr Anita Foerster, Professor Hari Osofsky and Professor Brett McDonnell
15 WWF-Australia
16 Regnan
17 Financial Services Council
18 Mr Gareth Johnston
19 AGL Energy
20 Australian Ethical Investment
21 Environmental Justice Australia
22 CDP & Climate Disclosure Standards Board
23 Market Forces
24 Responsible Investment Association Australasia
25 Origin
26 Business Council of Australia
27 ANZ

28 Investor Group on Climate Change
29 Australian Industry Greenhouse Network
30 Australian Council of Superannuation Investors
31 The Climate Institute
32 Sustainable Business Australia
33 CPA Australia

Submissions received in the 45th Parliament

34 Centre for Policy Development
35 Climate Disclosure Standards Board
36 Sustainable Business Australia
37 Market Forces
38 The Climate Institute
39 Confidential

Tabled documents

1 Investor Group on Climate Change: Response to the TCFD public consultation (public hearing, Sydney, 8 March 2017)
2 Australian Securities and Investments Commission (ASIC): Opening statement (public hearing, Sydney, 8 March 2017)
3 Australian Prudential Regulation Authority (APRA): Opening statement (public hearing, Sydney 8 March 2017)

Answers to questions on notice

1 Australasian Centre for Corporate Responsibility: Answers to questions taken on notice from a public hearing on 8 March 2017 (received 23 March 2017)
2 CDP: Answers to questions taken on notice from a public hearing on 8 March 2017 (received 23 March 2017)
3 CPA Australia: Answers to questions taken on notice from a public hearing on 8 March 2017 (received 24 March 2017)
4 Australian Securities and Investments Commission: Answers to questions taken on notice from a public hearing on 8 March 2017 (received 24 March 2017)

Appendix 2

Public hearings

Sydney NSW, 8 March 2017

Committee Members in attendance: Senators McAllister, Whish-Wilson

DAY, Mr James, Director, Australia and New Zealand, CDP

GOCHER, Mr Daniel, Analyst, Market Forces

HERD, Ms Emma, Chief Executive Officer, Investor Group on Climate Change

MACKENZIE, Ms Kate, Head of Finance and Investment, The Climate Institute

McKINLEY, Ms Ella, Ethics Analyst, Australian Ethical Investment

O'BRIEN, Ms Brynn, Executive Director, Australasian Centre for Corporate Responsibility

O'ROURKE, Ms Kate, Senior Executive Leader, Corporations, Australian Securities and Investments Commission

PURCELL, Dr John, Policy Adviser, Environmental, Social and Governance, CPA Australia

SUMMERHAYES, Mr Geoffrey, Member, Australian Prudential Regulation Authority

VERNON, Mr Philip, Managing Director, Australian Ethical Investment