INVESTOR GROUP ON CLIMATE CHANGE

Submission to the Joint Standing Committee on Trade and Investment Growth inquiry into the prudential regulation of investment in Australia's export industries

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ABOUT IGCC

The Investor Group on Climate Change (IGCC) is a collaboration of Australian and New Zealand investors focused on the impact that climate change has on investment. IGCC represents institutional investors with total funds under management of over $2 trillion, and others in the investment community interested in the impact of climate change. IGCC members cover over 7.5 million people in Australia and New Zealand.

Introduction

The Investor Group on Climate Change (IGCC) welcomes the opportunity to make a submission to the Committee's inquiry into the prudential regulation of investment in Australia's export industries.

IGCC is an industry and advocacy organisation that represents and works with Australian and New Zealand-based institutional investors, including superannuation funds, and related organisations on climate change issues. As managers of retirement savings and pooled investments, institutional investors are concerned with the evident and increasing impacts of climate change on global and national economies, and the flow through impacts for investment returns.

The terms of reference for this inquiry are broad in relation to the relevant "prudential standards and practices" for consideration. Due to IGCC's core business and expertise we keep our comments below contained to issues of managing financial climate risk and opportunities as it relates to investment approaches towards Australian export industries. As IGCC members are invested across the Australian economy and are part owners of most of Australia's large companies, our submission does not seek to address how these issues affect any one specific export industry and is instead focused on the broader market impact and investor response to climate risks.

This submission also updates the November 2019 IGCC policy brief – *Climate Risk and Fiduciary Duty*[1] – and draws from its material. The appendix of this submission updates the timeline of developments on climate risk guidance for regulated financial entities across major markets that was contained in the original brief.

Overview

There are three major trends across policy and financial markets that are driving the institutional investor response to climate risk and in turn form *part* of their investment approach to Australian export industries:

- Clear and growing evidence of the systemic risks climate change poses to the economy, financial system and sustainable returns for beneficiaries and clients.
- Emerging regulatory and legal guidance in almost all major global financial centres, including Australia, that climate change poses foreseeable, material and actionable risks that directors and trustees have a fiduciary duty to address.

[1] https://igcc.org.au/wp-content/uploads/2020/06/IGCC_Policy-Briefing_Fiduciary-Duty_FINAL_1.pdf

- The global transition to net zero emissions is accelerating, and Australian export industries are already exposed to this through the policy changes and capital shifts in key trading markets. This shift is being accelerated by the falling costs of many zero emissions technologies, the deployment of green economic stimulus by governments and changing consumer preferences in key markets.

These trends are irreversible and intensifying. As a trade-reliant, internationally exposed economy, Australia cannot avoid the global transition to net zero emissions and the impact it will have on our export industries, particularly emissions-intensive ones. But Australia can seek to ensure this transition occurs in an orderly manner that meets our international obligations under the Paris Agreement, protects the most exposed communities and workers, and minimises the economic disruption.

Australia also has significant natural and strategic advantages to produce and capitalise on the existing and new export products that will be in growing demand as part of an emissions-constrained world, such as green steel, green hydrogen and many critical raw materials. While seeking to manage climate risk, institutional investors are also hungry to capitalise on these opportunities to find market value and continue to generate sustainable returns for their beneficiaries and clients.

This combination of climate risk management and emerging investment opportunities means global capital markets are rapidly mainstreaming net zero emissions investment. Countries that are not matching comparable global ambition, nor seeking to mitigate the climate risk in their economy with clear policy signals and action, will become less competitive in attracting international investment into its economy and industries.

To help ensure a relatively orderly transition, grow Australian export industries that are competitive in a net zero emissions world and continue to attract international investment, there are several steps that Australian policymakers and regulators should take:

- Establish a mandatory climate risk disclosure regime to reduce regulatory burden by providing clarity for investors and companies, and creating better consistency and alignment with global financial markets and regulatory frameworks.
- Align 2030 pathways and targets with achieving the objectives of the Paris Agreement and avoiding a disorderly transition to net zero emissions by 2050 at the latest.
- Establish economy-wide, investable and long-term climate change and energy policies, including clear just transition and investment plans for communities currently reliant on emissions-intensive export industries.

Systemic financial risks

Climate change is now widely recognised as a systemic threat to the financial system. The economic impacts of climate change present material risks to the investment returns of long-term asset owners and their beneficiaries. Ultimately, institutional investors invest across the economy for the long-term and are exposed to the growing impact of climate change on the companies, industries, property and infrastructure assets they own.

As the Reserve Bank of Australia (RBA) stated in October 2019:

"Climate change is exposing financial institutions and the financial system more broadly to risks that will rise over time, if not addressed. According to the Intergovernmental Panel on Climate Change (IPCC), it will take significant effort to limit global warming to 1.5°C above pre-industrial levels, as targeted in the Paris Agreement. Even if targets are met,

this level of warming is likely to be accompanied by rising sea levels and an increase in the frequency and intensity of extreme weather (including storms, heatwaves and droughts). Some of these outcomes are already apparent. These changes will create both financial and macroeconomic risks."[2]

In addition to the financial and economic impacts of climate change, investors are also exposed to regulatory shifts, technology disruption and changes in market demand for emissions-intensive goods and services like fossil fuels – all of which could diminish the value of investments.

If unaddressed the size of these climate risks would cause growing economy-wide shocks and disruption that universal owners, like institutional investors, will not be able to fully hedge against through traditional portfolio risk management strategies.

Potential costs

Several studies have attempted to quantify the economic impact of failing to act on climate change at a global and Australian level. Notable examples include:

- Modelling conducted by the Network of Central Banks and Supervisors for Greening the Financial System[3] (NGFS) found runaway global warming would result in a cumulative loss of global GDP of 25 per cent by the end of the century from physical risks alone.[4]
- Deloitte Access Economics found that unchecked climate change would reduce Australian economic growth by 3.6 per cent (or $1.1 trillion) and cost 310,000 jobs by 2050, rising to six per cent (or $3.4 trillion) and 880,000 jobs by 2070.[5]
- The University of Melbourne found that potential damage from pre-COVID emissions patterns to Australia would be $584.5 billion in 2030 and $762 billion in 2050, and cumulatively could be as high as $5 trillion through to 2100.[6]
- The 2021 NSW Intergenerational Report found the cost of natural disasters in the state would more than triple to $15.8 billion to $17.2 billion by 2061 depending on the rate of global warming. Rising sea levels would cause a further $850 million to $1.3 billion in damage and there would be lost agricultural production of between $750 million and $1.5 billion by 2061.[7]
- Swiss RE found the projected global average warming at mid-century from the current emissions trajectory – 2°C-2.6°C – would result in economic losses of approximately seven to 10 per cent more than if the Paris objective of well below 2°C is met. Australia would suffer losses worth approximately seven to eight per cent on the same measure.[8]
- Bridgewater Associates found a high-impact scenario for climate change would result in several emerging Asian and Latin American countries losing up to half of their projected annual GDP growth and a smaller but still significant growth drag for many major developed countries including Australia.[9]

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[2] https://www.rba.gov.au/publications/fsr/2019/oct/box-c-financial-stability-risks-from-climate-change.html
[3] The NGFS is an international coalition of central banks and supervisors to accelerate work on climate and environmental risk. The NGFS has 83 members representing five continents, with members jurisdictions supervising 100 per cent of globally systemically important banks, two-thirds of the globally systemically important insurers and over 85 per cent of global GDP. The RBA and the Australian Prudential Regulation Authority (APRA) are members.
[4] https://www.ngfs.net/sites/default/files/medias/documents/820184_ngfs_scenarios_final_version_v6.pdf
[5] https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-dae-new-choice-climate-growth-051120.pdf?nc=1
[6] https://sustainable.unimelb.edu.au/publications/issues-papers/australias-clean-economy
[7] https://www.treasury.nsw.gov.au/sites/default/files/2021-04/2021_igr_ttrp_-_an_indicative_assessment_of_four_key_areas_of_climate_risk_for_the_2021_nsw_intergenerational_report.pdf
[8] https://www.swissre.com/dam/jcr:e73ee7c3-7f83-4c17-a2b8-8ef23a8d3312/swiss-re-institute-expertise-publication-economics-of-climate-change.pdf
[9] https://www.bridgewater.com/_document/examining-the-potential-impacts-of-climate-change-on-economies?id=00000173-8236-d9e6-ad73-923f6e6a0000

Authors of these modelling exercises, such as the NGFS,[10] often warn that they likely underestimate the economic costs of climate change.

In response to the nature and scope of the risks that are created, the Bank of International Settlements (BIS) has stated that climate change could be the cause of the next systemic financial crisis.[11]

Regulatory and legal response

In response to the growing understanding of how climate risks threaten the stability of the financial system, clear guidance about the duty of directors and trustees to respond has emerged from regulators in most major financial centres, including Australia. Regulator expectations of investors and other financial entities are not explicitly targeted to their interactions with any one export industry, but instead reflect an economy-wide risk consideration requiring an organisational-wide response that may capture specific industries, companies and markets due to their emissions intensity.

Table 2 in the appendix of this submission details the multiple and reinforcing signals that scientists, governments and regulators have been sending to financial markets on climate change since 1990. The scientific consensus on climate change has been robust and growing in confidence over the past 30 years.

Governments around the world have also been progressively building the international architecture to limit global warming over the same period and implementing policies to reduce national emissions. This culminated in the Paris Agreement in 2015, where governments agreed to ratchet up action over time to achieve net zero emissions. Over the past two years many of the world's largest economies have raised the ambition of their medium- and long-term commitments under the Paris Agreement, including the United Kingdom, European Union, United States, Canada, Japan, South Korea, China and more.[12]

Australian regulators

Critically, over the last decade, global financial institutions, central banks and national financial regulators have been increasingly warning of the financial risks of climate change. They are now requiring a proactive response from financial institutions and companies to manage climate-related financial risks to ensure financial stability. The actions of Australian financial regulatory bodies are outlined in Table 1 below.

These regulator signals on climate risk cannot be ignored by any entity, including investors.

[10] https://www.ngfs.net/sites/default/files/medias/documents/820184_ngfs_scenarios_final_version_v6.pdf

[11] https://www.bis.org/publ/othp31.pdfsource=content_type%3Areact%7Cfirst_level_url%3Aarticle%7Csection%3Amain_content%7Cbutton%3Abody_link

[12] https://igcc.org.au/wp-content/uploads/2021/04/230421_Media-Release_US-2030-5.pdf

Table 1. Regulatory action on climate-related risks in Australia

Organisation	Public statements on climate risk	Updated guidance	Actions and responses from regulator/entity
Australian Prudential Regulation Authority (APRA)	Climate risk mentioned in several speeches[13,14,15,16] Climate change survey results released in information paper[17]	Wrote to all regulated entities detailing position and activities on climate change[18] Increased scrutiny of banks, insurers and superannuation trustees[19] Released draft Prudential Practice Guide for Climate Change Financial Risks[20]	Enhanced supervisory action including climate change survey[21] Climate risk working group established under Council of Financial Regulators[22] Peer agency cooperation internationally[23] Vulnerability assessment of major banks[24]
Australian Securities and Investments Commission (ASIC)	Climate risk mentioned in several speeches and reports[25,26]	Focussed on corporate governance and disclosure[27]	Monitoring adoption of reporting against the Task Force on Climate-related Disclosures (TCFD) recommendations across ASX 300[28,29] Review of regulatory guidance[30] Climate risk working group established under Council of Financial Regulators[31] Peer agency cooperation internationally[32]

13 https://www.apra.gov.au/news-and-publications/australias-new-horizon-climate-change-challenges-and-prudential-risk
14 https://www.apra.gov.au/news-and-publications/weight-of-money-a-business-case-for-climate-risk-resilience
15 https://www.apra.gov.au/news-and-publications/apra-executive-board-member-geoff-summerhayes-speech-to-international
16 https://www.apra.gov.au/news-and-publications/apra-chair-wayne-byres-speech-to-committee-for-economic-development-of
17 https://www.apra.gov.au/sites/default/files/climate_change_awareness_to_action_march_2019.pdf
18 https://www.apra.gov.au/understanding-and-managing-financial-risks-of-climate-change
19 https://www.apra.gov.au/news-and-publications/apra-to-step-up-scrutiny-of-climate-risks-after-releasing-survey-results
20 https://www.apra.gov.au/sites/default/files/2021-04/Draft%20CPG%20229%20Climate%20Change%20Financial%20Risks_1.pdf
21 https://www.apra.gov.au/sites/default/files/climate_change_awareness_to_action_march_2019.pdf
22 https://www.cfr.gov.au/about/pdf/cfr-working-group-2019-06.pdf
23 https://www.ngfs.net/en/about-us/membership
24 https://www.apra.gov.au/sites/default/files/2021-01/Information%20Paper%20-%20Supervision%20Priorities%202021.pdf
25 https://asic.gov.au/about-asic/news-centre/speeches/climate-change/
26 https://asic.gov.au/about-asic/news-centre/articles/managing-climate-risk-for-directors/
27 https://download.asic.gov.au/media/5828033/corporate-plan-2020-24-published-31-august-2020-2.pdf
28 https://asic.gov.au/about-asic/corporate-publications/newsletters/asic-corporate-finance-update/corporate-finance-update-issue-4/#climate-change-related-disclosure
29 https://download.asic.gov.au/media/5828033/corporate-plan-2020-24-published-31-august-2020-2.pdf
30 https://asic.gov.au/about-asic/news-centre/find-a-media-release/2019-releases/19-208mr-asic-updates-guidance-on-climate-change-related-disclosure/
31 https://asic.gov.au/about-asic/news-centre/speeches/australian-institutional-investor-roundtable/
32 https://asic.gov.au/about-asic/news-centre/speeches/anu-climate-update/

Reserve Bank of Australia (RBA)	Speech on climate change and the economy[33]	Supports TCFD as key framework for disclosures[34] Supported APRA and ASIC's guidance[35] Board tables climate risk for discussion at upcoming meetings[36]	Climate change included in Financial Stability Review[37][38] Peer agency cooperation internationally[39] Vulnerability assessment of major banks[40]
Council of Financial Regulators (CFR) - APRA, ASIC, RBA and the Commonwealth Treasury		Established a dedicated working group[41]	Stocktake of member activities on climate risk[42]
ASX		Climate risks discussed in revised Corporate Governance Guidelines[43]	Amended guidelines and specifically highlighted climate risk management and disclosure in line with the TCFD[44]

International regulators

Regulators in many other major financial markets have issued similar guidance and in some cases are moving more aggressively than their Australian counterparts. The US Federal Reserve identified climate change as a risk to the stability of the US financial system in its Financial Stability Report. Federal Reserve supervisors expect banks to have systems in place that appropriately identify, measure, control and monitor all their material risks, which for many banks are likely to extend to climate risks.[45]

The United States,[46] United Kingdom,[47] New Zealand[48] and Hong Kong,[49] among others, have signalled their intention to implement or are currently legislating mandatory climate risk disclosure regimes. Others are developing or introducing detailed taxonomies to tighten the definition of sustainable investing, including the European Union[50] and ASEAN nations.[51] Most institutional Australian investors operate globally and are exposed to the regulatory trends in other markets through their portfolios.

Legal developments

Beyond the regulator response, legal guidance has also emerged that establishes clear expectations for directors that they have an obligation to respond to climate risk. Notably, the landmark legal opinion of

[33] https://www.rba.gov.au/speeches/2019/sp-dg-2019-03-12.html
[34] https://www.rba.gov.au/speeches/2019/sp-dg-2019-03-12.html
[35] https://www.rba.gov.au/speeches/2019/sp-dg-2019-03-12.html
[36] https://www.rba.gov.au/monetary-policy/rba-board-minutes/2021/2021-04-06.html
[37] https://www.rba.gov.au/publications/fsr/2019/oct/box-c-financial-stability-risks-from-climate-change.html
[38] https://www.rba.gov.au/publications/fsr/2021/apr/pdf/financial-stability-review-2021-04.pdf
[39] https://www.ngfs.net/en/about-us/membership
[40] https://www.afr.com/companies/financial-services/apra-to-assess-banks-vulnerability-to-climate-risk-20200224-p543uj
[41] https://www.cfr.gov.au/about/pdf/cfr-working-group-2019-06.pdf
[42] https://www.cfr.gov.au/news/2020/mr-20-04.html
[43] https://www.asx.com.au/documents/asx-compliance/consultation-paper-cgc-4th-edition.pdf
[44] https://www.asx.com.au/documents/asx-compliance/cgc-principles-and-recommendations-fourth-edn.pdf
[45] https://www.federalreserve.gov/publications/files/financial-stability-report-20201109.pdf
[46] https://www.bloomberg.com/news/articles/2021-04-07/biden-poised-to-issue-order-on-climate-disclosures-kerry-says
[47] https://www.lexology.com/library/detail.aspx?g=7638c908-0912-4bcb-86b5-c2178884be1a
[48] https://www.beehive.govt.nz/release/nz-becomes-first-world-climate-reporting#:~:text=Commerce%20and%20Consumer%20Affairs%20Minister,climate%2Drelated%20risks%20and%20opportunities
[49] https://www.environmental-finance.com/content/news/hong-kong-proposes-mandatory-climate-disclosure-for-funds.html
[50] https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en
[51] https://asean.org/storage/Joint_Statement_of_the_7th_AFMGM.pdf

Noel Hutley SC and Sebastian Hartford Davis in 2016,[52] and updated in 2019,[53] states: "…company directors who fail to consider climate change risks now could be found liable for breaching their duty of care and diligence in the future." Hutley and Davis further updated their legal guidance in April 2021, finding that the bar for directors continues to rise and that corporate declarations of climate action, such as public annunciations to achieving net zero emissions, require reasonable grounds to make such a claim.[54] The sum of the three sets of advice is that corporate directors have a fiduciary duty to *assess and disclose* climate risk and take *positive and genuine* steps to respond, or risk future litigation.

Hutley and James Mack have also produced similar legal guidance for superannuation trustees in 2017,[55] updated in 2021.[56] The updated trustee advice stated:

"In our view, the likelihood of the financial risk being a material risk to investments managed by a superannuation trustee is such that a trustee is obliged to undertake a two-step exercise (if they have not already) in order to comply with obligations under superannuation law. The first step is to understand the risk posed by climate change to investments. The second step is to manage any identified risk."

While not establishing hard precedent, legal commentary has noted the negotiated settlement in *McVeigh v Retail Employees Superannuation Trust Pty Ltd* has established minimum industry norms for superannuation funds and their trustees on the actions required to manage climate risk as stewards for their members' retirement savings.[57]

In a recent speech, APRA Chair Wayne Byres identified legal liability (alongside physical and transitional) as one of the categories of risk created by climate change for financial institutions that are "increasingly very real, and immediate".[58]

Investor response

Australian institutional investors are responding to potential physical, transition and liability risk exposure from climate change, which in turn *partly* affects how they approach investment in Australian export industries, in a range of ways:

- **Investment practice:** Integrating climate change considerations into strategic asset allocation, investment mandates, performance reporting and portfolio analysis; making investments in low carbon and climate-resilient portfolios, funds and assets; setting portfolio emissions reduction goals; and phasing-out investments in emissions-intensive industries to reduce financial risk exposure.
- **Corporate engagement:** Increasing engagement with companies to secure commitments from boards and senior management to disclose their climate-related risks, take action to reduce emissions across the value chain and implement business plans to thrive in a resilient, net zero emissions economy.

[52] https://cpd.org.au/wp-content/uploads/2016/10/Legal-Opinion-on-Climate-Change-and-Directors-Duties.pdf
[53] https://cpd.org.au/wp-content/uploads/2019/03/Noel-Hutley-SC-and-Sebastian-Hartford-Davis-Opinion-2019-and-2016_pdf.pdf
[54] https://cpd.org.au/wp-content/uploads/2021/04/Further-Supplementary-Opinion-2021-1.pdf
[55] https://www.marketforces.org.au/wp-content/uploads/2020/01/170615-Market-Forces-Memorandum-Superannuation-Trustee-Duties-and-Climate-Change-Risk-Hutley-Mack-.pdf
[56] https://www.marketforces.org.au/wp-content/uploads/2021/04/210216-Hutley-Mack-Superannuation-Trustee-Duties-and-Climate-Change-Memo-1.pdf
[57] https://www.minterellison.com/articles/judgment-or-not-superannuation-trustees-must-not-ignore-climate-risk
[58] https://www.apra.gov.au/news-and-publications/apra-chair-wayne-byres-speech-to-committee-for-economic-development-of

- **Public policy engagement:** Government policy provides the signals and incentives that direct the flow of capital across the global economy. As universal owners of the Australian economy, institutional investors are engaging with policymakers as a necessary extension of their responsibilities and duties to deliver strong returns for their members. Credible, investable and durable policy frameworks put in place today can support strong investor and superannuation fund holders' returns into the future.

International trends

The approach of Australian investors is consistent with their international counterparts. BlackRock, the world's largest asset manager, has made many public statements on the risks and opportunities involved with climate change, including highlighting the financial impact of climate-related write-downs in the energy sector and the regulator focus on climate risk in the global financial system.[59] Other globally significant investors such as State Street Global Advisers[60] and JP Morgan Asset Management[61] have described climate change as a clear risk to their investment portfolios.

Internationally major investor commitments and initiatives have emerged to actualise elements of the investor response to climate risk. These include:

- **Climate Action 100+:** 575 investors, responsible for assets under management worth $US54 trillion (about half of the global total), are engaging with 167 of the world's largest emitting companies and others critical to the net zero transition on emission reductions, disclosure and corporate governance of climate risks.[62] There are 55 investors represented in the Australasian working group, engaging with 15 Australian-listed companies, many of whom are producing export products.
- **Net Zero Asset Managers initiative:** 87 asset manager signatories, with combined funds under management of almost $US37 trillion, have signed up to the initiative as of April 2021, vowing to support investing aligned with net zero emissions by 2050 or sooner with clear targets, disclosure and other actions.[63] This includes the world's three largest asset managers, BlackRock, Vanguard and State Street Global Advisors.
- **Net Zero Asset Owners Alliance & Paris Aligned Investment Initiative Asset Owner Commitment:** 35 asset owners, with $US5.6 trillion in combined assets have signed onto the Alliance,[64] and 22 with $US1.2 trillion in assets have signed onto the Commitment.[65] Both cohorts have committed to transition their portfolios to net zero emissions by 2050 or before. These signatories are a modest subset of the number of asset owners globally who have made organisational net zero commitments for their portfolios, including in Australia.[66]
- **Global Investor Statement to Governments on Climate Change**: In 2019, 631 investors globally, collectively responsible for $US37 trillion in assets under management, issued a statement to governments calling for them to: align climate goals and polices with the objectives of the Paris Agreement; accelerate private sector investment in the transition to net zero emissions with steps like carbon pricing and ending fossil fuel subsidies; and commit to improving climate risk disclosure

[59] https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter
[60] https://www.ssga.com/au/en_gb/institutional/ic/capabilities/esg/investment-solutions/climate-risk-strategies
[61] https://am.jpmorgan.com/au/en/asset-management/institutional/insights/portfolio-insights/sustainable-investing/assessing-climate-risk-in-equity-investing/
[62] https://www.climateaction100.org/
[63] https://www.netzeroassetmanagers.org/
[64] https://www.unepfi.org/net-zero-alliance/
[65] https://www.netzeroassetmanagers.org/
[66] https://www.climateworksaustralia.org/resource/net-zero-momentum-tracker-superannuation-sector/

and reporting.[67] In 2020, the seven founding partners of The Investor Agenda, including IGCC, issued a statement to G20 nations and New Zealand, urging them to pursue a sustainable economic recovery from the COVID-19 pandemic that is consistent with and accelerates the transition to net zero emissions.[68]

Inevitable net zero transition

The global transition to net zero emissions, as agreed to under the Paris Agreement, is already underway, accelerating and irreversible. Australia has a trade-reliant economy that is deeply connected to international capital markets.

Approximately 70 per cent of Australia's two-way trade is now with nations that have made commitments to net zero emissions by or near mid-century.[69] Globally, 68 per cent of the world's GDP is now covered by net zero commitments at or near mid-century, as are companies with $US14 trillion in annual sales.[70] Many of our key trading markets are also strengthening their medium-term emissions reduction goals, investing in clean industries and infrastructure through economic recovery packages and implementing new policy mechanisms to create an orderly transition to net zero emissions in ways that far exceed the Australian response to date.[71][72]

As a result, Australia risks falling behind its competitors in demonstrating to capital markets that the climate risk of our economy and industries is being addressed. Australia's current emissions-intensive export industries will be affected by the climate risk response of our key trading partners as they seek cleaner products consistent with their international commitments. These trends are being accelerated by the changing economies of zero emissions technologies and alternatives (particularly in energy),[73] greater levels of green stimulus deployment in response to the economic disruption of the COVID-19 pandemic in comparable nations,[74] and changing consumer preferences.[75] The Climate Change Authority has summarised these trends and Australia's export exposure by stating:

"The necessary global transition to low-carbon emissions and the need for Australia to enhance our preparedness for future climate impacts present challenges but also great opportunities. We are a resource-rich trading nation with abundant clean energy resources. Our prosperity depends on continued access to overseas markets, which will increasingly favour low- and zero-emissions products and services."[76]

Australian net zero export opportunities

Australia has significant advantages that would allow the nation to capitalise and claim market share in the export industries that are emerging or are expected to be critical as part of the accelerating global transition to net zero emissions. The CSIRO has stated: "Australia has many sources of comparative advantage for low emissions technologies to build on. While the transition to a low emissions economy is often framed in

[67] https://theinvestoragenda.org/wp-content/uploads/2019/12/191201-GISGCC-FINAL-for-COP25.pdf
[68] https://theinvestoragenda.org/wp-content/uploads/2020/05/THE_INVESTOR_AGENDA_A_SUSTAINABLE_RECOVERY_FROM_COVID-19.pdf
[69] https://igcc.org.au/wp-content/uploads/2020/11/IGCC-Policy-brief_USelection_Nov2020_FINAL_3.pdf
[70] https://ca1-eci.edcdn.com/reports/ECIU-Oxford_Taking_Stock.pdf?mtime=20210323005817&focal=none
[71] https://igcc.org.au/wp-content/uploads/2021/04/230421_Media-Release_US-2030-5.pdf
[72] https://igcc.org.au/wp-content/uploads/2020/11/IGCC-Policy-brief_USelection_Nov2020_FINAL_3.pdf
[73] https://www.irena.org/publications/2020/Jun/Renewable-Power-Costs-in-2019
[74] https://wedocs.unep.org/bitstream/handle/20.500.11822/35281/AWBBB.pdf
[75] https://www.ibm.com/downloads/cas/EXK4XKX8
[76] https://www.climatechangeauthority.gov.au/sites/default/files/2020-09/Prospering%20in%20a%20low-emissions%20world.pdf

terms of cost, this transition will also create demand for new products and services both in Australia and in export markets."[77]

Several major studies have demonstrated Australia would economically benefit from a well-managed transition to net zero emissions and could create new export industries, including:

- Deloitte Access Economics found Australia would grow its economy by $680 billion, increase GDP by 2.6 per cent and add 250,000 jobs by 2070 by adopting a comprehensive transition approach.[78]
- Modelling for IGCC found adopting a net zero goal for 2050 and supporting policy framework in Australia would create $69 billion in fresh domestic investment opportunities to 2025 and more again in export industries, compared to $26 billion under a business-as-usual approach.[79]
- The Grattan Institute found Australia is well positioned to develop an export green steel industry, and that capturing 6.5 per cent of global trade would generate $65 billion in export earnings and create 25,000 manufacturing jobs in NSW and Queensland.[80]
- ACIL Allen forecast that Australian hydrogen exports could be worth up to $5 billion by 2040.[81]
- The Office of the Chief Economist projected that by the end of 2025–26 a surge in Australian export earnings of metals used in technologies central to the global energy transition — copper, lithium and nickel — will replace the fall in thermal coal earnings arising from the net zero emissions transition.[82]

Beyond heavy industry and mining, the Climate Change Authority has found that Australia's large and sophisticated funds management industry (now the fourth largest in the world) and growing climate finance capacity puts the nation in a strong position to become a major investor in net zero emissions opportunities and a green finance hub for the Asia-Pacific region.[83]

Investable policy signals

IGCC recognises the primary focus of this inquiry is the current prudential standards and practices of regulators, and the approach of financial organisations towards Australian export industries. Looking forward there are important steps policymakers can take to support the emerging and potential new Australian export industries noted above, and in turn attract fresh private capital investment in their growth.

Specifically, IGCC recommends three broad policy approaches:

- **Establishing a mandatory climate risk disclosure regime in Australia:** This would reduce regulatory burden by providing clarity for investors and companies, and creating better consistency and alignment with global financial markets and regulatory frameworks.
- **Align national emissions reduction goals and pathways with the Paris Agreement goals:** While targets need to be supported by clear policies, they are useful in themselves as they serve as a

[77] https://www.csiro.au/en/work-with-us/services/consultancy-strategic-advice-services/CSIRO-futures/Futures-reports/Low-Emissions-Technology-Roadmap
[78] https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-dae-new-choice-climate-growth-051120.pdf?nc=1
[79] https://igcc.org.au/wp-content/uploads/2020/10/121020_IGCC-Report_Net-Zero-Investment-Opportunity.pdf
[80] https://grattan.edu.au/report/start-with-steel/
[81] https://arena.gov.au/assets/2018/08/opportunities-for-australia-from-hydrogen-exports.pdf
[82] https://publications.industry.gov.au/publications/resourcesandenergyquarterlymarch2021/documents/Resources-and-Energy-Quarterly-March-2021.pdf
[83] https://www.climatechangeauthority.gov.au/sites/default/files/2020-09/Prospering%20in%20a%20low-emissions%20world.pdf

signal to capital markets about the likely future competitiveness of a nation in an emissions-constrained world. Aligning Australia's 2030 pathways and targets to achieving the objectives of the Paris Agreement will help avoid a disorderly transition to net zero emissions by 2050 at the latest.

- **Establish an economy-wide and investable climate policy approach:** Unlocking billions of dollars of investment in new industries and new jobs requires a strong partnership between government and institutional investors. Clear, stable and investable policy that addresses climate risk in each sector of the economy will allow investors to better deploy capital to support the net zero transition and emerging export industries. Governments should also be working with investors, workers and businesses to develop clear just transition and local investment policies for communities currently reliant on emissions-intensive export industries.

More details about IGCC's immediate policy priorities are set out in the document *Policies for a Resilient Net Zero Emissions Economy*.[84] We would be happy to provide further information about IGCC's position on specific climate policy questions as required by the Committee.

Conclusion

Australian export industries are now facing a global market undergoing an accelerating structural shift driven by a transition to net zero emissions. At the same time institutional investors are responding to the clear evidence of, and regulatory direction on climate risk to protect and increase the returns they are generating for beneficiaries and clients. These trends are accelerating and irreversible. Capital market competitiveness in this environment will be marked by how exposed an economy and its export industries are to climate risks and how it is positioning itself to seize the opportunities of the transition.

Australia has significant advantages to enhance many existing export industries and create new ones by attracting a significant share of the trillions of dollars in private capital investment looking for net zero investment opportunities. Policymakers can create clear signals to capital markets to help attract this investment by strengthening disclosure regimes, matching global ambition and establishing durable, investable and economy-wide climate and energy policies.

IGCC looks forward to further assisting the Committee in this inquiry.

[84] https://igcc.org.au/wp-content/uploads/2020/06/Policies-for-a-resilient-economy_FINALa.pdf

Appendix

Table 2. Timeline of market and regulatory signals to long-term investors on climate change

Year	Regulatory and market signal
1990	UN Intergovernmental Panel on Climate Change (IPCC) concludes that the climate is changing and future global warming is "certain".
1992	Governments sign the UN Framework Convention on Climate Change (UNFCCC) and agree to limit "dangerous" climate change.
1995	IPCC concludes that the "balance of evidence" suggests human impacts are observable in recent climate change.
1996	European Union (EU) ministers agree the world should limit warming to 2°C.
1997	Governments sign the Kyoto Protocol. Developed countries agree legally binding 2010 emissions targets.
2001	IPCC concludes that it is "likely" that human impacts are observable in recent increases in global temperature.
2005	Investor Group on Climate Change (IGCC) established by ten founding investors to better understand the investment implications of climate change.
2006	Stern Review on the economics of climate change concludes the benefits of strong and early action far outweigh the economic costs of not acting.
2007	IPCC concludes increase in global temperatures is "very likely" due to human activity.
	Governments launch process on new global climate change agreement for action after 2012.
2008	Garnaut Review Final Report to federal and state governments released. Recommends medium to long-term climate change policies to improve the prospect of sustainable economic growth.
	All major emitters begin announcing 2020 emissions targets in advance of the Copenhagen climate change negotiations.
2009	Copenhagen Accords finalised, including an agreement to limit global warming to below 2°C.
2010	Countries enshrine the below 2°C target and 2020 emissions goals under the UNFCCC.
2011	IPCC concludes "human influence on the climate system is clear" and having widespread impacts on human and natural systems.
	Governments launch negotiations of post-2020 global climate agreement.
2012	World Bank concludes 4°C of warming must be avoided or climate change will set back decades of economic development.
	The China Banking Regulatory Commission issues *Green Credit Guidelines* for banks, to better capture ESG-related risks and opportunities.
	The Japan Ministry of the Environment produces the *Principles for Financial Action towards a Sustainable Society*.
2014	Major emitters begin announcing new 2025 and 2030 emissions targets in advance of the Paris climate negotiations.
2015	In response to concerns raised by G20 finance ministers on climate risks, the Task Force on Climate-related Financial Disclosures (TCFD) is established.
	Governor of the Bank of England delivers landmark speech on climate risk and financial stability to Lloyd's of London.
	The Bank of England Prudential Regulatory Authority issues its report titled *The Impact of Climate Change on the UK Insurance Sector*.
	European Systemic Risk Board publishes assessment of systemic financial risks from the transition to a low-carbon economy.

	Special scientific report for the UNFCCC concludes 2°C is no longer a safe "guardrail" for global action on climate change.
	French Government requires investors to disclose how they factor carbon-related risks into their investment policies (Article 173 in the Energy Transition Law).
	196 countries sign the Paris Agreement. Strengthens global objective to limit warming to 1.5°C to "well below" 2°C and establishes goal to achieve net zero emissions.
	China's central bank launches a report that sets out in specific and practical terms an ambitious agenda of how China can green its rapidly developing financial and capital markets.
2016	Australian Senate Economics Reference Committee inquiry finds the disclosure of material climate change risks is necessary to ensure investors are sufficiently informed of these risks, and to incentivise companies to manage them.
	Governor of the Bank of England outlines the financial stability risks posed by climate change, and how building new markets in climate transition and green finance could help resolve these risks.
	European Commission establishes a High-Level Expert Group (HLEG) on Sustainable Finance to help meet Paris Agreement goals.
	The 2016 Hutley opinion, commissioned by the Centre for Policy Development and the Future Business Council, finds that climate-related physical and transition risks can be seen as "foreseeable", and that directors who do not properly manage climate risk may be held liable for breaching their legal duty of due care and diligence.
2017	Geoff Summerhayes, Executive Board Member of APRA, gives a speech to the Insurance Council of Australia annual forum stating: "The [Paris] agreement provides an unmistakable signal about the future direction of policy and the adjustments that companies, markets and economies will need to make... [it] provides a very reliable signal that policy and regulatory efforts will intensify."
	The Bank of England outlines climate-related financial risks which impact upon its objectives.
	The Network of Central Banks and Supervisors for Greening the Financial System (NGFS) is established to strengthen the global response required to limit warming to well below 2°C and to enhance the role of the financial system in managing climate risks and delivering sustainable development. Initial founders include central banks and regulators from Mexico, England, France, the Netherlands, Germany, Sweden, Singapore and China.
	The International Monetary Fund (IMF) warns that climate change will have adverse macroeconomic impacts, particularly in low-income countries.
	Final recommendations of the TCFD published.
	IPCC publishes special report on limiting warming to 1.5°C. It concludes there are clear benefits to people and natural ecosystems in limiting global warming to 1.5°C and achieving this will require rapid, far-reaching and unprecedented changes in all aspects of society.
2018	John Price, Commissioner, ASIC, delivers address stating: "...in our view, the [Hutley] opinion appears legally sound and is reflective of our understanding of the position under the prevailing case law in Australia in so far as directors' duties are concerned... the Hutley opinion highlights and reinforces the need for directors to adopt a probative and proactive approach in assembling the information reasonably required to inform their decision making in this area."
	Australian Accounting Standards Board (AASB) and Auditing and Assurance Standards Board (AUASB) release joint guidance on integration of material climate-related assumptions into financial statement accounting estimates. Puts climate assumptions squarely within the remit of external audit review.
	The RBA joins the NGFS. Other new members include central banks and regulators from Finland, Luxembourg, Japan, Belgium, Malaysia, Portugal, Norway and New Zealand.

	European Commission adopts the action plan on sustainable finance to help deliver on the Paris Agreement. Amongst other items, the plan proposes requirements on institutional investors to disclose how they integrate climate risk into their decision making.
	The Reserve Bank of New Zealand releases its climate change strategy. Reports on the impact of climate change on New Zealand's financial system.
2019	Additional regulators join the NGFS including from Switzerland, Italy, Canada, Greece, Thailand, Hungary, Ireland, Denmark and Colombia.
	ASX's Corporate Governance Principles and Recommendations set out commentary regarding environmental disclosure and, for the first time, provides explicit guidance on climate change risk.
	Guy Debelle, Deputy Governor of the RBA joins APRA, ASIC and the ASX in considering climate change risk through an economic lens and stressing the need for businesses, including those in the financial sector, to implement the recommendations of the TCFD. Describes climate change as a "first order economic risk" for the Australian economy.
	UK's Prudential Regulation Authority publishes climate change scenarios in its biennial insurance company stress test. Scenarios explore the impacts to both firms' liabilities and investments stemming from physical and transition climate risks.
	The NGFS publishes first technical report on climate-related risks: *Understanding how climate change impacts the macroeconomy and the financial system is a necessary first step in central banks and supervisors judging the relevance of climate change to their mandates*. New members including United Arab Emirates, Malta, Hong Kong and South Africa.
	UK Government sets expectations that all listed companies and large asset owners will disclose in line with the TCFD recommendations by 2022.
	European Commission publishes guidelines on how EU companies and financial institutions should disclose climate-related financial risks.
	Canada's Expert Panel on Sustainable Finance sets out roadmap to mainstream sustainable and climate-related finance in the country.
	The Hong Kong Stock Exchange launches consultation to strengthen ESG reporting requirements for Hong Kong issuers with additional requirements on chapter on climate change.
	The Canadian Securities Administrators (CSA) publishes guidance to assist companies in identifying and improving their disclosure of material risks posed by climate change.
	The IMF's *Global Financial Stability Report* states policymakers have a role to play in promoting integration of climate change considerations into investments and business decisions.
	The RBA *Financial Stability Review* states: "Climate change will have a broad-based impact on Australian financial institutions and therefore clearly poses risks that are systemic in nature."
	The Governor of the Bank of England warns the private sector has two years to establish credible rules for reporting climate risks before global regulators devise their own and make them compulsory.
	The IMF concludes the longer we wait to address climate change, the greater the loss of life and damage to the world economy. Will undertake country and sector-level analysis of climate risks.
	The Hong Kong Monetary Authority unveils three sets of measures to support and promote Hong Kong's green finance development.
	The Japanese Government forms the TCFD Consortium to support and stimulate industry and investor reporting efforts and hosts the first TCFD Summit in Tokyo.
	The Bank of Japan announces it will evaluate climate-related risks for Japan's financial stability.

	New Zealand's Aotearoa Circle's Sustainable Finance Forum publishes legal opinion to clarify the obligations of directors and fund managers are required to take account of climate change in their decision-making.
	New members join NGFS: Bank Indonesia, Bank of Japan, Bank of Korea, Banque de Tunisie, Central Bank of Colombia, Central Bank of the Russian Federation, the Comisión para el Mercado Financiero de Chile and Národná banka Slovenska.
2020	The Bank of International Settlements publishes a paper on financial climate-related risks which finds that: "Traditional backward-looking risk assessments and existing climate-economic models cannot anticipate accurately enough the form that climate-related risks will take. These include what we call 'green swan' risks: potentially extremely financially disruptive events that could be behind the next systemic financial crisis."
	The Bank of International Settlement's Basel Committee on Banking Supervision establishes the Task Force on Climate-related Financial Risks to contribute to the Committee's mandate of enhancing global financial stability by undertaking several initiatives on climate-related financial risks. The Basel Committee is the primary global standard setter for the prudential regulation of banks and provides a forum for cooperation on banking supervisory matters.
	ARPA publishes a letter from Geoff Summerhayes to all APRA-regulated institutions outlining plans to develop a prudential practice guide focused on climate-related financial risks, as well as a climate change vulnerability assessment.
	The Australian Sustainable Finance Initiative releases its roadmap including recommendations for mandatory TCFD reporting and recognition of climate risk as financial risk requiring prudent oversight.
	The Australian Climate Change Authority recommends that a joint taskforce of the Council of Financial Regulators, together with the major accounting bodies, examine the phasing-in and mandatory reporting of climate-related risks and mainstream climate-related disclosures in the audited financial statements of companies.
	The New Zealand Reserve Bank publishes a speech by Governor Adrian Orr titled *A Near Horizon - Seizing the opportunities and managing the risks in the transition to net zero: The importance of climate-related financial disclosures*.
	The New Zealand Sustainable Finance Forum releases its roadmap to 2030 recommending a broad suite of actions to mitigate climate risk across the financial system.
	The IMF publish a paper that warns, "… the vulnerability and resilience to climate change have a significant impact on the cost government borrowing, after controlling for conventional determinants of sovereign risk." Countries with higher exposer to climate change face greater risks.
	The Basel Committee publishes stocktake report on climate-related financial risk initiatives that shows that most of its members are undertaking several regulatory and supervisory initiatives on climate-related financial risks.
	The Bank of Canada publishes discussion paper: *Scenario Analysis and the Economic and Financial Risks from Climate Change*.
	The NGFS publishes a set of scenarios for climate-risk analysis by central banks and supervisors. These include: • Orderly scenario - Early, ambitious action to reach a net zero emissions economy. Economic impact of the transition is "relatively small". • Disorderly - Action that is late, disruptive, sudden and/or unanticipated. The result is higher transition risk and significantly large economic impacts than an orderly transition. • Hot house world – Unchecked global warming. Physical damages result in a 25 per cent GDP loss by 2100. The NGFS note that "damages in this scenario will be larger than models suggest, particularly in regions with lower resilience and capacity for adaptation."

	The NGFS publishes a *Guide for Supervisors Integrating climate-related and environmental risks into prudential supervision*.
	Hong Kong's Monetary Authority (HKMA) and Securities and Futures Commission establishes a new cross-agency steering group tasked with coordinating the management of climate and environmental risks for the financial sector, accelerating the growth of green and sustainable finance in Hong Kong, and supporting the government's climate strategies. The HKMA Chief Executive states: "Climate change is a source of financial risk impacting the entire financial sector and is highly relevant to our mandate. The transition will prompt structural adjustments to the global economy, bringing both risks and opportunities."
	The IMF's *Global Financial Stability Report: Markets in the Time of COVID-19* states: "Disasters as a result of climate change are projected to be more frequent and more severe, which could threaten financial stability… Better disclosure of exposures to climatic disasters and stress testing for financial firms can help preserve financial stability and should complement policy measures to mitigate and adapt to climate change."
	The UK's regulatory Climate Financial Risk Forum publishes a guide written by the industry, for the industry, to help financial services firms approach and address climate-related financial risks.
	The Bank of England publishes a letter from Sam Woods to all PRA-regulated firms on *Managing climate-related financial risk – thematic feedback from the PRA's review of firms' SS3/19 plans and clarification of expectations*.
	The Climate Measurement Standards Initiative guidelines launch in Australia to ensure consistent climate change risks assessments and disclosure.
	The IMF's *World Economic Outlook* notes: "Without further action to reduce greenhouse gas emissions, the planet is on course to reach temperatures not seen in millions of years, with potentially catastrophic implications. The analysis in this chapter suggests that an initial green investment push combined with steadily rising carbon prices would deliver the needed emission reductions at reasonable transitional global output effects, putting the global economy on a stronger and more sustainable footing over the medium term."
	Report from the Climate-Related Market Risk Subcommittee, Market Risk Advisory Committee of the US Commodity Futures Trading Commission on *Managing Climate Risk in the US Financial System*, recommends that financial regulators "incorporate climate-related risk into their mandates and develop a strategy for integrating these risks in their work, including into their existing monitoring and oversight functions."
	The New Zealand Government announces its mandatory climate risk reporting regime for public financial institutions and companies.
	The US Federal Reserve states they expect banks to have systems in place that appropriately identify, measure, control and monitor all their material risks, which for many banks are likely to extend to climate risks.
	The US Securities and Exchange Commission's (SEC) Acting Chair calls for financial institutions to disclose their climate risks, including those associated with the financing they provide. The SEC says it will work with market participants towards a disclosure regime specifically tailored to ensure that financial institutions produce standardised, comparable and reliable disclosure of their exposure to climate risks, including not just direct, but also indirect, scope 3 emissions.
	The New York State Department of Financial Services sends letter to regulated organisations stating they are expected to start integrating the financial risks from climate change into their governance frameworks, risk management processes and business strategies. This should include an enterprise-wide risk assessment to evaluate climate change and its impacts on risk factors, such as credit risk, market risk, liquidity risk, operational risk, reputational risk, and strategy risk and implementation of TCFD disclosures.

	The US Federal Reserve System joins the NGFS, together with seven other new members: Central Bank of Paraguay, Financial Regulatory Authority of Egypt, Financial Services Authority of Indonesia, Central Bank of Iceland, Polish Financial Supervision Authority, Central Bank of Uruguay and the European Securities and Markets Authority.
	Japan's Ministry of Economy, Trade and Industry (METI), jointly with the Financial Services Agency (FSA) and the Ministry of the Environment (MOE), launches the Taskforce on Preparation of Environment for Transition Finance and formulate the Japan's Basic Principles for transition finance to net zero emissions.
	Hong Kong's Monetary Authority and Securities and Futures Commission outlines a plan to make climate risk disclosures mandatory across relevant sectors no later than 2025, including preparing a pilot climate risk stress test in 2021 to check the resilience of the banking sector and requiring large fund managers to assess the resilience of their investments to climate-related risk.
2021	US financial regulators establish the Supervision Climate Committee (SCC), a system-wide group bringing together senior staff across the Federal Reserve Board and Reserve Banks. The SCC aims to further build the Federal Reserve's capacity to understand the potential implications of climate change for financial institutions, infrastructure and markets.
	South Korea's financial authorities announce a policy framework that obligates listed firms to disclose corporate information on investment activities related to environmental, social and governance standards.
	Japan's Financial Services Agency urges banks and companies to accelerate decarbonisation and will add climate change to banks guidance policy to favour companies that invest in renewable energy.
	The US Federal Reserve Governor, Lael Brainard, warns: "Climate change is already imposing substantial economic costs and is projected to have a profound effect on the economy at home and abroad. …supervisors have a responsibility to ensure that financial institutions are resilient to all material risks—including those related to climate change—both currently and into the future. It is essential that financial institutions—and the financial sector as a whole—are resilient to and prepared for the challenges of climate change."
	The acting head of the US SEC, directs the Division of Corporation Finance to enhance its focus on climate-related disclosure in public company filings. The SEC vows to review the extent to which public companies comply with disclosure obligations under the federal securities laws, engage with public companies on these issues and absorb critical lessons on how the market is currently managing climate-related risks. The staff will use insights from this work to begin updating the 2010 guidance to account for developments in the last decade.
	The G20's Financial Security Board launches three climate-related workstreams covering data, disclosure and regulatory and supervisory practice, and bringing together work being carried out by standard-setting bodies and international organisations. The workstreams report on ways to promote consistent, high-quality climate disclosures based on the recommendations of the TCFD and an assessment of financial stability risks.
	Yi Gang, the Governor of the People's Bank of China, says that the primary goal of the central bank over the next five years is to implement and standardise a green finance system in the country in co-ordination with global partners. China's central bank is co-operating with the EU to converge green investment taxonomies across the two markets.
	US Treasury releases a strategy focusing on climate transition finance, climate-related economic and tax policy and climate-related financial risks.
	US Special Presidential Envoy for Climate, John Kerry, states the US is "probably going to join with Europe on mandating disclosure" of climate risk.
	EU introduces new requirements and clarifies the sustainability-related disclosure obligations in the financial services sector. The new requirements distinguish between

	financial products which have sustainable investment as their objective and all other products.
	US Secretary of The Treasury outlines that current reporting frameworks are “not producing the reliable, consistent, and comparable disclosures needed for investors to accurately compare climate-related risks and opportunities across companies.” Highlights US Treasury is co-chairing the newly relaunched G20 Sustainable Finance Working Group. The Working Group will coordinate to avoid the potential for inconsistencies that lead to market fragmentation, distorting markets or impeding the flow of capital.
	APRA releases its draft *Prudential Practice Guide for Climate Change Financial Risks.*