MAPLE-BROWN ABBOTT
INVESTMENT MANAGERS SINCE 1984

Climate Change Report

31 March 2023

The risks and opportunities presented by climate change are far reaching and complex and it is beyond dispute that the effects of climate change will have a profound impact on the global economy. Changes in temperature patterns, extreme weather events, rising sea levels and natural resource degradation are all projected to affect individuals, communities, businesses and industries, both positively and negatively.

At Maple-Brown Abbott we are acutely aware that climate change risks have the potential to impact investment risks and returns and cause environmental and social harm. Specifically, increasing temperatures continue to adversely impact economic activity, human health, social equity, agricultural productivity, property and infrastructure.[1] Along with these risks, we believe that climate change also presents opportunities from an investment perspective, such as emerging and low carbon technologies, circular economy innovation and offsetting schemes.

Maple-Brown Abbott has significantly evolved since our origins nearly 40 years ago across investment styles, asset classes, geographies and client types. Today we are a boutique of boutiques, focusing on active management of differentiated listed equity strategies. As one of the earliest Australian managers to sign up to the UN-supported Principles for Responsible Investment (PRI), we have a long history of deep environmental, social and governance (ESG) integration which is core to each of our strategies. Consideration of climate change-driven risks and opportunities is a key part of our approach to integrating ESG factors into our investment process, and we continually look to deepen our understanding and response.

As a custodian of our clients' capital, we have an increasingly important role to play in understanding how climate change risks and opportunities intersect with the companies and industries we invest in. And, as an active investor with scale, we are very aware of the role we believe that we can play in mitigating the negative impacts of climate change.

This Climate Change Report provides an update to our 2021 Climate Change Report and aims to give stakeholders an overview of how we take into consideration the climate-related risks and opportunities in the assets we manage on behalf of our clients. Our report follows the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) aligning to the pillars of governance, strategy, risk management and metrics and targets.

This Climate Change Report also covers our firm-wide approach to climate risk. In addition, the Maple-Brown Abbott Global Listed Infrastructure (GLI) team have published strategy-specific climate change and scenario analysis reporting.

1 Source: Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, 2022

Memberships and frameworks

Task Force on Climate-Related Financial Disclosures

Maple Brown-Abbott is a supporter of the TCFD. Established by the Financial Stability Board, the TCFD is designed to improve and increase reporting of climate-related financial information. The objective is to provide financial markets with information on the impacts of climate change including the risks and opportunities presented by rising temperatures, climate-related policy and emerging technologies.

The TCFD recommendations are applicable across sectors and jurisdictions and are structured around four thematic areas that are reflective of organisations' operational management across governance, strategy, risk management and metrics and targets.

Principles for Responsible Investment

We became an early signatory to the UN-supported PRI in 2008. In our most recent PRI assessment report we were awarded the maximum five stars for our approach to ESG incorporation and rated above the global median in all modules. Our transparency report is available on our website.

Climate Action 100+

We are a member of Climate Action 100+, an investor-led initiative designed to engage with the world's largest greenhouse gas (GHG) emitters to take action on climate change. As part of this, we are a member of two engagement working groups. We believe that our CA100+ engagements are an effective tool in our broader toolbox of investment stewardship.

Transition Pathway Initiative

We are a supporter of the Transition Pathway Initiative (TPI). The TPI is an open-source tool that scores companies on their transition potential and alignment with a net zero emissions pathway by 2050. We use the tool as one of the inputs in our ESG research.

Net Zero Asset Managers Initiative

In 2021 we became a signatory to the Net Zero Asset Managers initiative. As at 31 December 2022, the initiative was backed by 301 global investors managing over USD 59 trillion in assets and is part of the Race to Zero initiative. In becoming a signatory, we have made a commitment to align the GLI strategy with net zero emissions by 2050 and set an interim emissions target to assist with this trajectory.

Signatory of:

Governance

Board oversight

The Maple-Brown Abbott Limited Board (Board) has ultimate oversight of our investment climate change strategy. Our approach to managing climate risk in our investments is governed by the firm's Climate Change Policy (Policy). The Policy was last updated and approved by the Board in November 2022 and highlights our commitment to addressing the risks posed by a warming planet.

The Policy applies to equities that are directly managed by Maple-Brown Abbott. Given this asset class comprises the majority of our funds under management we have greater ability to implement our Climate Change Policy and affect change. We also consider ESG factors, including climate change, in the appointment and evaluation of external fund managers appointed to manage assets on behalf of Maple-Brown Abbott.

The Board is provided with information and education to support it in its oversight, including from third-party experts. This has included a dedicated session by an independent expert on 'Climate risk: directors' duties and outlook' which formed part of the most recent Board Strategy Day.

Role of management

Maple-Brown Abbott's ESG Committee is responsible for the governance of ESG activities, including our management of climate risk across the business strategy, operations, policies and practices of the firm. The ESG Committee is chaired by the firm's Chief Investment Officer, and other members include the Chief Executive Officer, Head of ESG and the head of each investment strategy. Among other things, the ESG Committee drives the firm's climate change agenda which is executed within each investment portfolio in strategy-relevant ways. Maple-Brown Abbott operates a boutique model where investment teams independently determine their investment strategies including the manner in which climate change considerations are integrated into the investment process.

The underlying responsibility for integrating climate risks and opportunities into our investment process lies with each investment and/or ESG analyst, who incorporate climate risks into financial assessment at a sector and stock level as relevant, while each portfolio manager incorporates this analysis into their trading decisions.

In addition, Maple-Brown Abbott has dedicated ESG resources who are responsible for coordinating the implementation of the firm's Climate Change Policy and associated ESG initiatives.

Strategy

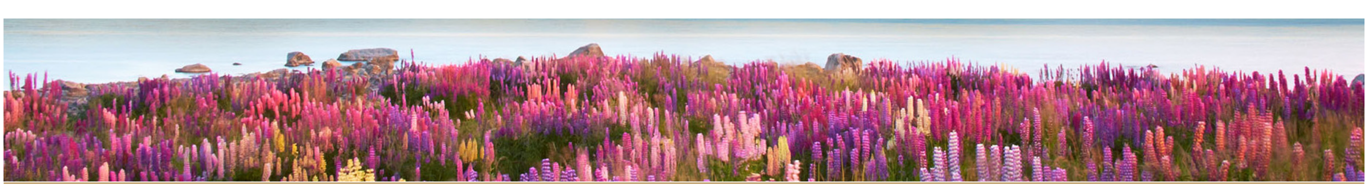
Climate change risks and opportunities, along with other ESG factors have the potential to impact investment risks and returns.

There are two types of risk associated with climate change, and we consider both in our climate risk analysis and investment decision making.

1. **Physical risks** include those that arise from the physical effects of climate change such as loss or damage incurred due to flooding, droughts, intense heat or other extreme weather events.
2. **Transition risks** are those that arise from the policy, regulation, market and technology innovations associated with decarbonisation.

We see areas of physical and transition risk playing out over the near, medium and long term, with the likelihood and impact of each risk varying by geography, sector and company. Over the term of our investment horizon we consider the risks across a number categories.

Climate risk type	Risk category	Examples of specific climate change risks
Physical risk	**Chronic physical impacts**	– Detrimental impacts caused by increases in average temperatures, changes in rainfall and other weather patterns and rising sea levels
	Acute weather events	– Increased frequency and severity of extreme weather events such as floods, typhoons, droughts and heatwaves
Transition risk	**Policy and regulation**	– Changing government energy and climate policies and regulation such as tougher emissions and energy efficiency standards, and carbon pricing – Changes in subsidies for fossil fuels and renewables
	Market risk	– Changes in customer demand – Changes in energy availability and pricing
	Technology	– Changes in energy mix
	Reputation	– Increased stigmatisation of carbon-intensive sectors; loss of social license



There is a wide spectrum of longer-term risks and opportunities. These range from the best-case scenario, where there is an orderly transition to a low carbon economy, and in the worst-case scenario, where there is social, political and economic disorder owing to a disorderly approach to decarbonisation and of the heightened effects of physical climate change.

We believe that the transition to a lower carbon future also presents opportunities from an equity investment perspective and we seek to identify these through our research and stewardship process.

Area	Examples of climate change opportunities
Resource efficiency	– Development of green buildings and infrastructure to support environmentally resilient urban development – Increased recycling, reuse and regeneration of materials through a circular economy – Switch to more efficient modes of transport such as electric and hydrogen-powered vehicles, and increase in sustainable aviation fuels
Energy source	– Shift to decentralised energy generation – Increased electrification and development of new technologies to support lower-emission sources of energy
Products and services	– Provision of the materials, infrastructure and technology needed for clean energy and reduced greenhouse gas emissions – Development of climate adaption resources

Consistent with our ESG integration and engagement investment strategy, we factor climate change-related physical and transition risks into our risk-return assessments. Our purpose is to understand and manage climate-related financial risks, and to influence the companies we invest in and the flow of capital to accelerate energy transition. More information on our investment stewardship is provided later in this report.

We work with clients to understand and incorporate their climate change investment objectives including, but not limited to, the implementation of exclusion lists, invitations to participate in company advocacy, proxy voting instructions and tailored reporting.

We also apply varying levels of climate-related exclusions across select products and strategies. For example, the Maple-Brown Abbott Australian Sustainable Future Fund will not invest in companies that derive more than 10% of their revenue from the extraction of fossil fuels or the generation of electricity from thermal coal. More information on our climate-aware portfolios is provided in the Risk Management section below.

Risk management

Investment decision making

Climate risks are integrated into company assessments and investment decision-making through our risk-return assessments and ongoing stewardship activities. The risks from climate change have consequences for both real and financial assets. Our portfolios are, to varying degrees, exposed to these risks. Where they are material we seek to price these risks into valuations before they materialise.

In assessing where climate risks may exist, we consider a range of factors including the forward-looking physical and transition risks inherent under different climate scenarios, as well as current exposure to highly exposed sectors and companies. We use a range of data inputs including the IEA World Energy Outlook scenarios to model company and portfolio level impacts under different warming outcomes.

The assessment and management of climate risk is applied in strategy-relevant ways. Consistent with our Climate Change Policy, each company with material exposure to climate risk is assessed for its management response including:

- climate change governance and strategy
- revenue and/or cost exposure to carbon emissions and the potential impact of lower product demand and higher costs, and changing patterns of investment and production
- resilience and adaptability to the physical climate impacts of extreme weather and rising sea levels
- carbon transition scenario analysis and the impact on company valuations.

Our climate risk assessments, which are applied at a portfolio company level, include valuation assessment against climate transition scenarios including a two degrees Celsius or lower scenario based on climate-related value drivers.

We believe companies that demonstrate strong climate risk management credentials, report progress transparently and strategically position themselves to tap into the opportunities of a low carbon world are more likely to deliver long-term sustainable returns. Climate risk assessments are also instrumental in informing our company engagement activity.

Figure 1: Maple-Brown Abbott climate risk framework

Assess	Climate change risk assessment framework	Governance and strategy assessment	Assessment of company's stated position on climate change, adaptability to climate change, disclosures (incl TCFD alignment), scenario analysis and exposure to physical climate change impacts.
		Climate risk analysis	Company-specific analysis to determine where climate exposures exist, how material is it, and how can it be managed.
		Scenario analysis	Where climate risk is deemed material, company valuation is assessed against climate transition scenarios including a 2°C or lower scenario based on climate-related value drivers.

Act	1. Engage	2. Rebalance	3. Divest
	Climate change is a key pillar of MBA's stewardship. We engage with companies to encourage decarbonisation and improved governance, risk management and disclosure.	Tilt portfolio weights to reduce exposure to carbon-intensive sectors and/or companies without net zero targets. *Applied in select portfolios*	As a last resort we may apply exclusions where: – A portfolio is managed to a carbon benchmark, or – Engagement is not effective *Applied in select portfolios*

Stewardship

Stewardship, including direct and collaborative engagement and proxy voting, is intrinsic to our investment approach. Where companies have material climate risks we engage on their approach and encourage improved governance, risk management and disclosure.

In our discussions with boards and management, we seek to understand climate-related governance and approach, operational adaptability to both physical and transition risks and impact on decision-making. We have continued to advocate for TCFD-aligned reporting and decarbonisation in line with the long-term temperature goal of the Paris Agreement. Where relevant, we will also use our proxy voting activity to press for changes in support of these goals. Our firm-wide Stewardship Report provides more detail and specific case studies and is published annually on our website. In addition to this, each strategy produces annual reports with more detailed analysis of relevant engagement and stewardship activity.

Climate-aware portfolios

In select portfolios we apply further tilts or exclusions to manage to a carbon-emission related outcome. We will do this where a client has a specific mandate to achieve a specific goal, and in select funds as below.

Strategy or Fund	Climate-related exclusion
Maple-Brown Abbott Sustainable Future Fund	The Fund will not invest in companies that derive more than 10% of their revenue from: – the extraction of fossil fuels including thermal coal, metallurgical coal, oil and gas, or – the generation of electricity from thermal coal.
Maple-Brown Abbott Global Emerging Markets Equity Fund	The Fund will not invest in companies involved in the extraction of thermal coal.
Global Listed Infrastructure	The strategy does not invest in companies that: – invest capex in greenfield coal-fired power generation plants, or – derive the majority of their revenue from fossil fuel extraction and production.

Metrics and targets

Metrics

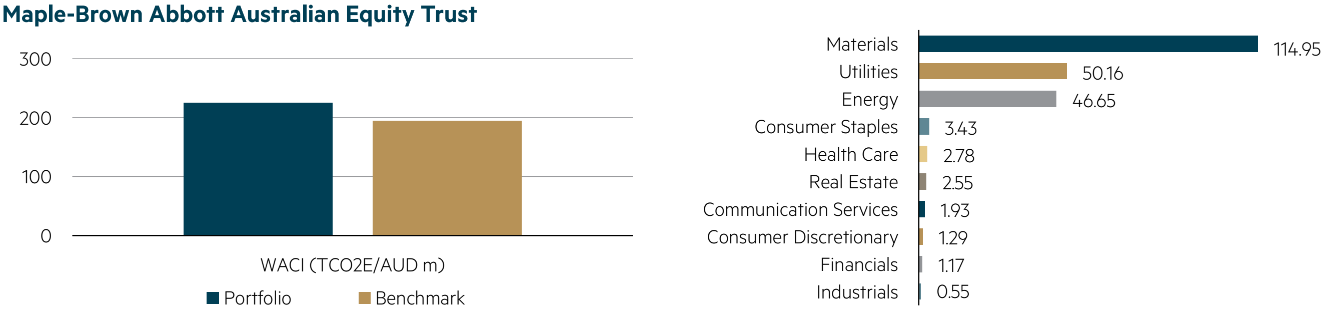
We use a range of metrics and inputs to assess climate-related risks and opportunities for our investments.

We calculate and disclose the carbon intensity metrics for our equity portfolios to better understand where risks may lie within the portfolios and to provide clients and stakeholders with climate-related information.

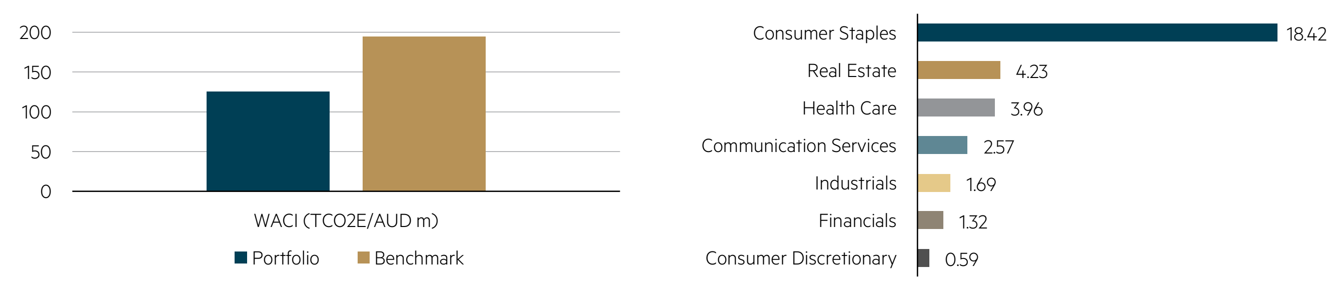
Portfolio carbon footprints

The weighted average carbon intensity (WACI) for representative funds in each strategy is presented below, alongside the sectoral contribution to the WACI.[2]

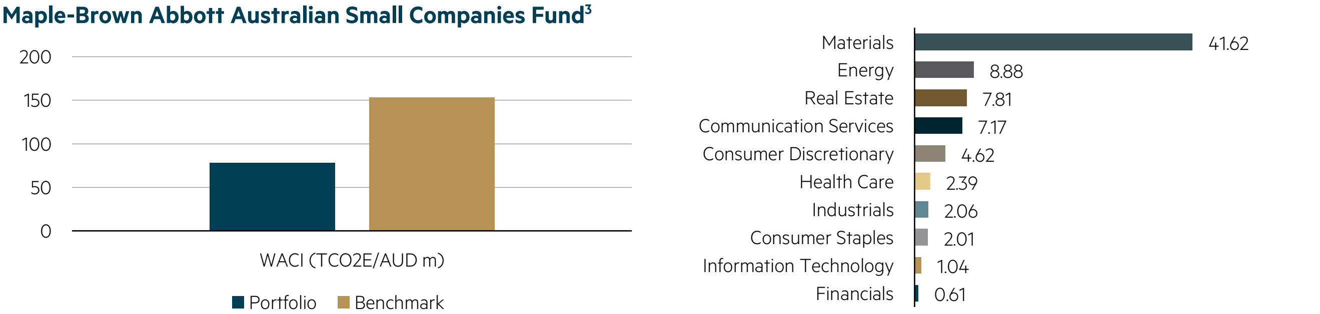
Maple-Brown Abbott Australian Equity Trust



Maple-Brown Abbott Australian Sustainable Future Fund



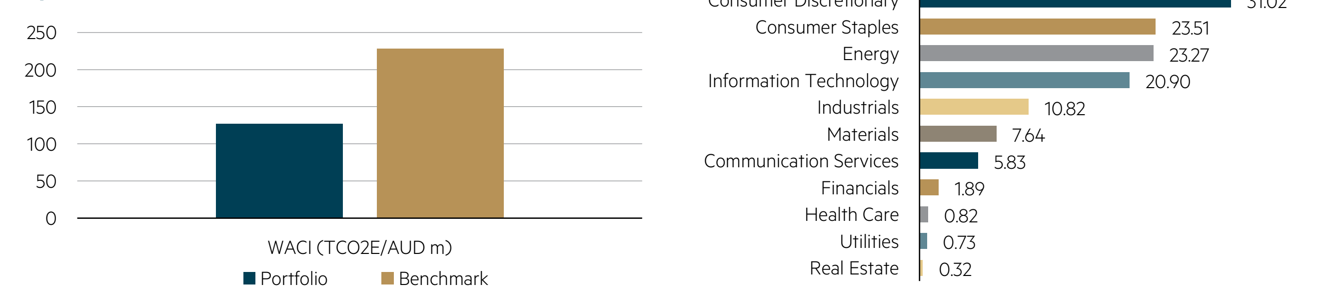
Maple-Brown Abbott Australian Small Companies Fund[3]



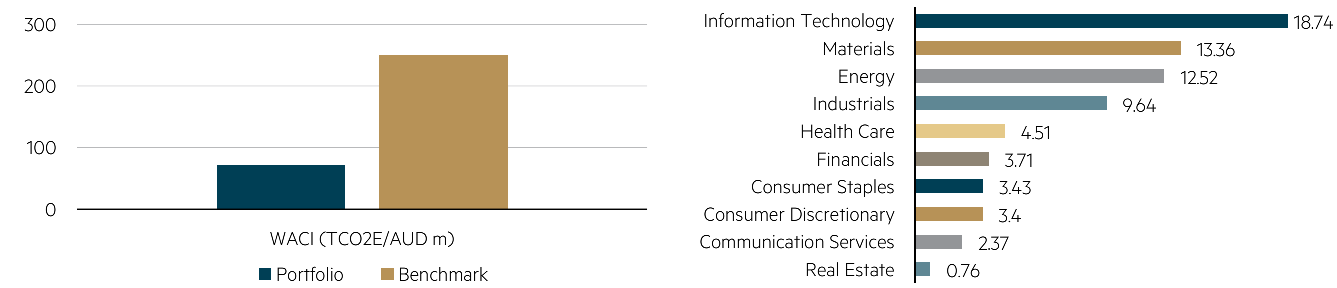
2 Data source: S&P Trucost. All data is of 31 March 2023

3 Companies held in the Maple-Brown Abbott Australian Small Companies Fund tend to have lower carbon disclosure rates. As a result, this number is modelled using best available data and assumptions.

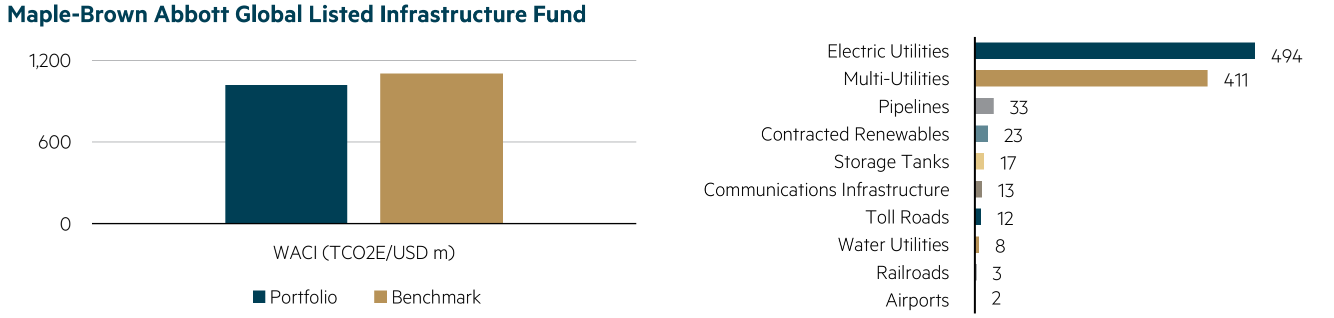
Maple-Brown Abbott Asian Investment Trust



Maple-Brown Abbott Global Emerging Markets Equity Fund



Maple-Brown Abbott Global Listed Infrastructure Fund



Global listed infrastructure targets

In October 2021, the Maple-Brown Abbott Global Listed Infrastructure (GLI) strategy became a signatory to the Net Zero Asset Managers Initiative (NZAMi). In doing so, we have committed to aligning the GLI investment strategy with a pathway towards net zero greenhouse gas (GHG) emissions by 2050. We have set a target of a 50% reduction in emissions intensity by 2030 relative to a 2020 baseline for all companies held0áin the GLI strategy.

More detailed information is available in the GLI decarbonisation strategy.