Russell Investments

# 2024

## Global climate report

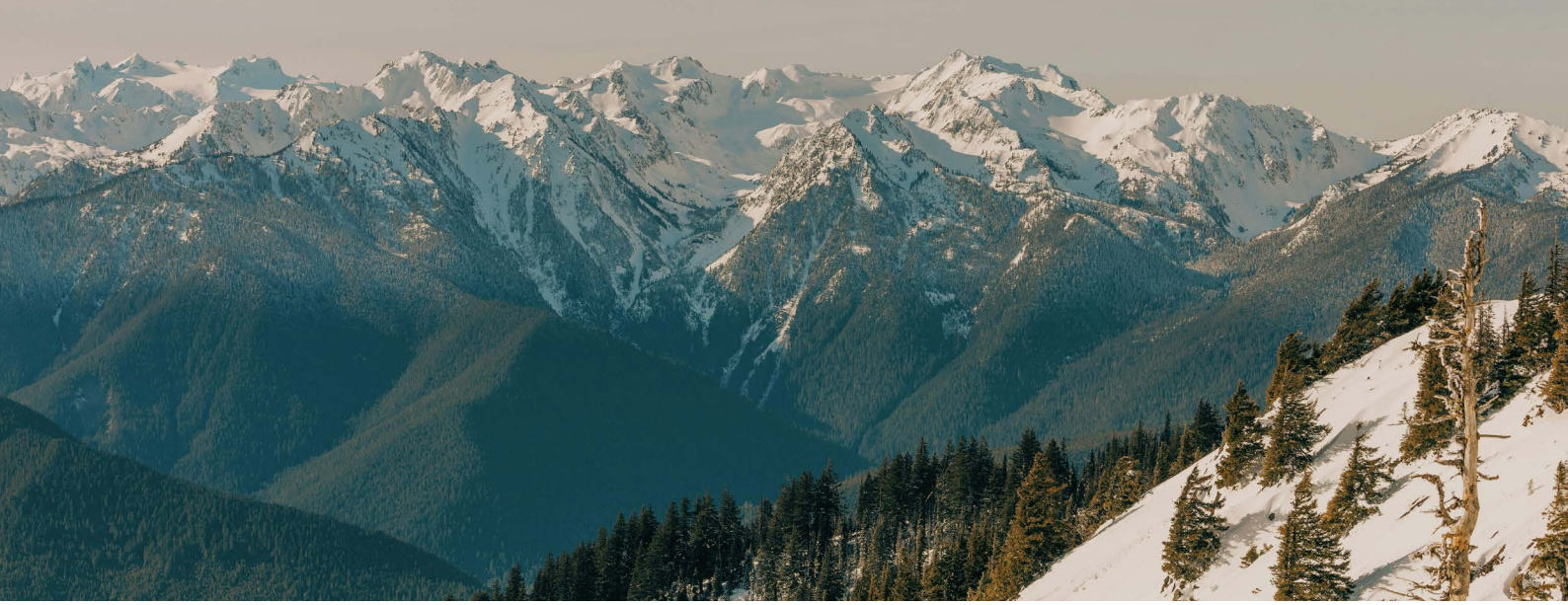
Aligned with recommendations from the Task Force on Climate Related Financial Disclosure

Invest without boundaries™

# Contents



This report has been named "2024" for the second consecutive year to enable consistency with industry standards. Please note that while the title remains the same, the data and analysis contained within have been fully updated to reflect the most current information available.



# About this report

Russell Investments became an official supporter of the Task Force on Climate Related Financial Disclosures (TCFD) in 2019, recognising that climate change presents material financial risks and opportunities. Since then, we've continued to observe how the global response to climate change, including shifts in policy, capital flows, and market preferences, can materially affect the financial performance of companies and, by extension, our clients' portfolios. We believe that integrating climate-related risks into financial decision-making is essential to accurately pricing these risks and ensuring resilient long-term investment outcomes.

This report follows the TCFD's recommendations, covering key areas such as governance, climate risks and opportunities, metrics and scenario analysis, and the strategies we use to manage sustainability risks. We remain committed to transparent, TCFD-aligned disclosure, and to strengthening our capabilities to deliver climate aware investment solutions. This year, we have restructured the report to loosely align with the components of a climate transition plan, with the aim of expanding and deepening our reporting in the years ahead.

As active owners, we support the TCFD's call for effective climate-related disclosures that equip investors to make informed financial decisions. We advocate for board-level oversight of climate issues and expect companies to demonstrate how climate risks and opportunities are integrated into their governance and strategy. Just as we hold companies accountable, we are committed to transparency in our own investment practices and operations, always acting in the best interests of our clients as a fiduciary.

At Russell Investments, we use the terms "responsible investing" and "sustainable investing" to include our approach to managing climate-related risks and opportunities. References to our Responsible Investing Councils or sustainability professionals reflect our oversight of climate change – alongside other long-term considerations – within our investment practices.

### **Spotlight:** nature-related risks and opportunities

In recognition of the growing importance of nature-related risks, we are also evaluating how to incorporate the recommendations of the Taskforce on Nature-Related Financial Disclosures (TNFD) into our investment and stewardship processes. Climate change and nature loss are deeply interconnected, and we believe that understanding both is essential to managing long-term investment risks. As part of this effort, we have included spotlight boxes throughout the report highlighting our approach to managing nature-related risks. These additions reflect our broader ambition to evolve our investment approach in step with the growing complexity of sustainability related risks.

# TCFD disclosure summary

The TCFD's recommended disclosures are organised according to the four pillars of governance, strategy, risk management, and metrics & targets. Below, we provide a summary of our disclosures against the recommendations, as well as the location of relevant disclosures in our report.

| Recommended pillars | Summary disclosure | Section |
|---|---|---|
| **Governance** | | |
| Describe the board's oversight of climate-related risks and opportunities. | Russell Investments' Board of Directors is ultimately responsible for strategic priority, corporate governance, and long-term stewardship of the firm. The Board has delegated oversight of the management of climate-related risk to the Executive Committee (ExCo). | 1 |
| Describe management's role in assessing and managing climate-related risks and opportunities. | The ExCo provides oversight of the firm's strategy and investment risk as it relates to climate-related considerations, both directly and through delegated entities including the Investment Strategy Committee and the Global Risk Management Committee. | 1 |
| **Strategy** | | |
| Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term. | Climate-related investment risks and opportunities include identified transition and physical risks and opportunities in our portfolios, along with relevant time horizons. | 2 |
| Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning. | Material impact on our investment process is detailed in section 2 and 3. Business operational footprint and targets are set out in Section 6. | 2, 3, 6 |
| Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario. | Scenario analysis of investment portfolios is detailed in Section 2. Integration of climate-related areas into our investment strategy is in Sections 3. | 2, 3 |
| **Risk management** | | |
| Describe the organisation's processes for identifying and assessing climate-related risks. | Carbon footprinting and scenario analysis identified as key tools. | 2 |
| Describe the organisation's processes for managing climate-related risks. | Formal policies, enhanced practices, active ownership, carbon-managed portfolios, and target setting are how we manage climate-related risks. | 2, 3 |
| Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management. | How we identify, assess, and manage climate-related risks is detailed in Section 2. Section 3 details how we integrate into our investment process. | 2,3 |
| **Metrics and targets** | | |
| Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process. | Carbon emissions (WACI and financed emissions) and temperature alignment are detailed in Section 4. Scenario analysis is detailed in 2.2.2. | 2.2.2, 4 |
| Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. | Operational emissions are disclosed in Section 6. | 6 |
| Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets. | Section 3 discloses our approach to developing solutions, including target setting. Section 5 provides details on setting and meeting Net Zero targets. | 3, 5 |

# Introduction

As we publish this report, we do so against the backdrop of increasing climate volatility and structural shifts in the global energy system – both of which carry material implications for long-term investors. The United Nations has confirmed that 2023 and 2024 were the hottest years on record, with early projections indicating that 2025 is likely to be warmer still. The compounding effects of climate change – manifested through rising temperatures, more frequent extreme weather events, and increasing physical disruption – continue to reshape global economic and financial systems.

At the same time, the energy transition is advancing at scale. The International Energy Agency (IEA) projects that renewable energy will account for more than 90% of global power capacity additions through 2030, while oil demand is expected to reach its peak before the decade's end. These structural changes are redefining the investment landscape, creating new risks and opportunities for forward-looking investors.

Our work recognises that the policy environment remains fluid. Shifts in leadership and regulatory priorities in key economies may introduce new complexities in the years ahead. As a global investment solutions provider, we closely monitor these developments while staying focused on delivering consistent, high-quality services and solutions which reflect the diverse needs of our clients.

In this context, our role is to help clients manage the financial impacts of climate change while identifying the most promising avenues for long-term value creation. This requires an adaptive, research-led approach that integrates climate considerations into all facets of our investment strategy, from manager selection to asset allocation to portfolio construction and stewardship. To support our clients through this transition, we are also actively evolving and expanding our capabilities and our climate-investing resources.

## Looking ahead: Our climate priorities

Looking ahead, we remain focused on elevating our capabilities and aligning our strategies with the shifting climate landscape. Our priorities include the below key areas of focus:

- **Enhancing our net zero alignment model:** we aim to incorporate additional data sources and perform more granular assessments to refine and improve our proprietary net zero alignment model.
- **Expanding our net zero approach to additional asset classes:** while our current emphasis is on listed equities and corporate debt, we plan to incorporate additional asset classes as client interest, data availability, and methodologies advance.
- **Integrating nature and biodiversity:** recognising the interdependence between climate and natural capital, we will begin to more explicitly assess nature-related risks and dependencies as part of our broader sustainability and climate risk strategy.
- **Developing climate solutions to meet changing client priorities:** we continue to evolve and design a range of climate-focused investment solutions that help clients pursue their financial objectives while addressing climate risks and capturing long-term transition-related opportunities.

Russell Investments remains dedicated to building our capabilities, engaging with transparency, and supporting clients in navigating the transition to a low-carbon, climate-resilient future.

# Highlights and achievements


Source: Russell Investments, data as at 31 December 2024 unless otherwise stated.

# Governance of sustainable investing

1

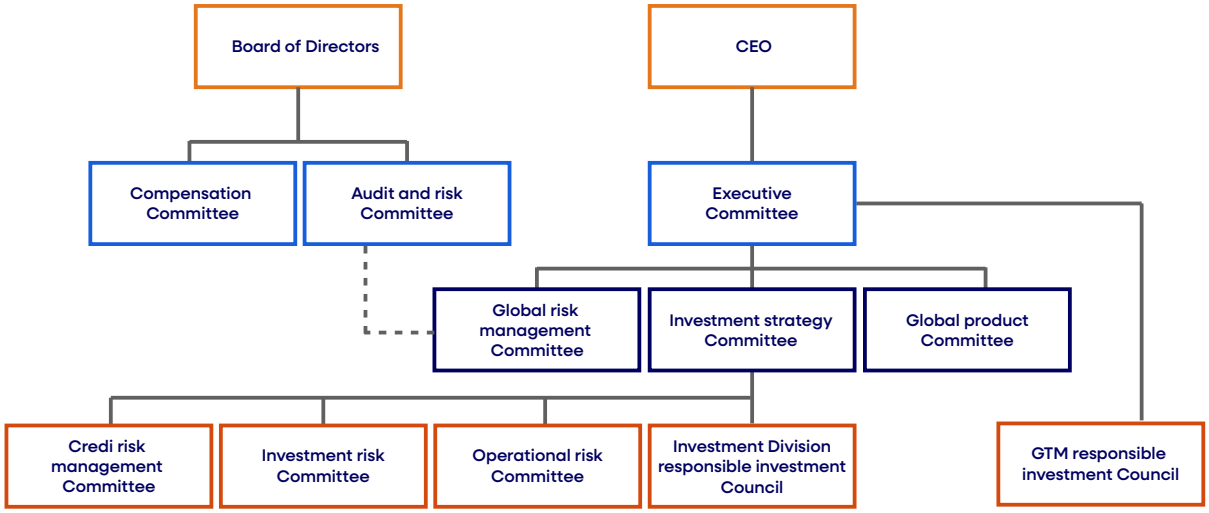
# 1. Governance of sustainable investing

Russell Investments' Board of Directors holds ultimate responsibility for the firm's strategic priorities, governance, and long-term stewardship. Climate-related risks and opportunities are recognised as a strategic priority, and we have established governance frameworks to identify, assess, and manage these issues. Our approach is reviewed annually to ensure senior leadership maintains appropriate visibility into key areas of risk and opportunity.

Oversight of climate-related risks is delegated by the Board to the Executive Committee (EC), which works through the Audit and Risk Committee and Investment Strategy Committee and key sub-committees:

- Investment Division Responsible Investing Council (IDRIC);
- Go-to-Market Responsible Investing Council (GTMRIC); and the
- Global Risk Management Committee (GRMC).

## Exhibit 1: Global governance committees




Source: Russell Investments, for illustrative purposes only.

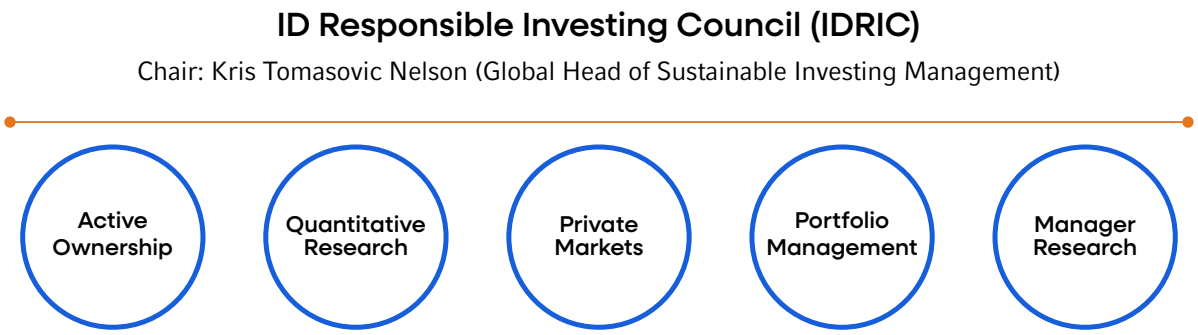
This TCFD report is reviewed annually by the Board's Audit and Risk Committee which supports the Board's ongoing understanding of climate risk exposure. In addition, the EC allocates resources to strengthen our climate-related capabilities – covering staffing, data, tools, partnerships, and training – as outlined in later sections.

We take an integrated approach to sustainable investing, embedding subject matter experts throughout the firm. The IDRIC and GTMRIC guide responsible investing practices and initiatives throughout the business while the GRMC focuses on sustainability in our business operations. All these committees operate under formal charters that define responsibilities and oversight.

## 1.1 Investment Division Responsible Investing Council (IDRIC)

The Investment Division (ID) is responsible for all investment activities on behalf of our clients. The IDRIC, a sub-committee of the Investment Strategy Committee (ISC), leads the ID's response to sustainable investing challenges arising from client needs, business strategy, and regulatory developments.

### Exhibit 2: Investment Division Responsible Investing Council structure (IDRIC)




Source: Russell Investments, for illustrative purposes only.

The IDRIC is comprised of sustainable investing experts from research and portfolio management teams. It routinely provides guidance and oversees the sustainable investing strategy implemented across the investment division, subject to ISC approval.

Specifically, the IDRIC:

1. Ensures the necessary **investment data, infrastructure, and processes** are in place to manage climate-related risks and capture opportunities, integrating material factors into investment decisions; and
2. Maintains the firm's **sustainability and climate risk policies** guiding investment professionals to use data, sub-adviser input, and internal expertise to manage sustainability risks, including climate risk.

In addition, our centralised Global Responsible Investing Team reviews the approach to integrating climate change considerations into the investment processes on a continual basis.

## 1.2 Go-to-Market Responsible Investing Council (GTM RIC)

The Go-to-Market (GTM) division oversees all client-facing activities. The GTM RIC reports directly to the EC and is responsible for how we communicate and report on our investment strategy as it relates to climate change. The council consists of representatives from across the business, including Product Solutions, Marketing, Legal, Compliance, and Client-facing teams.

### Exhibit 3: GTM Responsible Investing Council structure


Source: Russell Investments, for illustrative purposes only.

Specifically, the GTM RIC:

1. Leads the development of Russell Investments' **sustainability business strategy** by ensuring the right talent and infrastructure are in place to meet and exceed our clients' evolving global needs; and it
2. **Ensures compliance** with existing and emerging regulatory requirements globally while supporting the delivery of high-quality solutions, insights, reporting, and transparency for our clients.

## 1.3 Global Risk Management Committee (GRMC)

The GRMC reports directly to the EC and has a direct link to the Board through the Audit and Risk Committee. This Committee oversees Russell Investments' corporate risk management, including climate-related risks. Established by the EC, it supports executive management's oversight of governance frameworks, risk management policies, and exposures across investment, credit, and operational areas. As an independent authority, the GRMC plays a key role in evaluating climate risk and ensuring effective controls are in place globally.

Chaired by the Chief Risk Officer (CRO), the GRMC includes the firm's most senior leaders and meets at least three times per year to assess material risks, review regional risk reports, and advise on enterprise-wide risk issues.

### Exhibit 4: GRMC structure


Source: Russell Investments, for illustrative purposes only.

In its function providing oversight of critical initiatives across the company, the GRMC:

1. Monitors updates from its three subcommittees: Operational Risk, Investment Risk, and Credit Risk;
    - Typical subcommittee updates can include the ratification of Russell Investment's approved investments/ counterparty lists; the Event Escalation Report; review of investment risk & performance attribution; key project oversight including anything around operational sustainability; and emergent risk items.
2. Liaises between the risk management functions and the compliance functions of the business; and
3. Maintains and reviews a Key Risk Indicator (KRI) dashboard which provides a snapshot of risks and their trends across the company.

## 1.4 Skills and culture

### 1.4.1 Alignment of incentives and climate considerations

The evaluation of sustainability issues is a key objective for investment professionals globally. At Russell Investments, senior portfolio managers are compensated based upon a combination of factors which encompass their success in delivering desired investment outcomes for clients, while effectively contributing to investment processes and providing suitable levels of stewardship of client assets. This includes the evaluation of sustainability including climate-aware investing considerations in evaluating and selecting sub-advisers, managing climate risks and exposures at the total portfolio level, and contributing to our active ownership programme. Portfolio managers' effective incorporation of these factors is explicitly measured, included in annual assessments, and linked to compensation.

In addition to senior portfolio managers, all associates with specific responsibilities for sustainability, stewardship, and climate change have annual performance goals aligned with the success of the integration of these topics. These goals include evolving our responsible investing practices to be in line with global standards; collaborating with leading industry bodies to advance industry frameworks; driving our climate engagement practices; and research and development. Our aim is to enable the execution of robust stewardship practices that meet our clients' expectations. Success in meeting these goals is linked to remuneration.

### 1.4.2 Skills and competencies

Russell Investments supports ongoing associate development by encouraging participation in educational programmes that deepen skills and advance career goals. To support this, we offer a generous tuition reimbursement programme for eligible courses. Managers are accountable for working with associates to create tailored development plans aimed at building existing capabilities and fostering new skills.

For sustainable investing associates, we require both general and role-specific training for key investment professionals to ensure strong investment outcomes and stewardship. Client-facing teams also receive ongoing training on sustainability topics including climate change.

In 2024, the Global Responsible Investing Team launched a training series for investment professionals, covering new developments in sustainable investing tools and capabilities. Each module included a video and follow-up discussion session to clarify application of the material.

Training topics included:

- Sustainable investing tools for portfolio management and manager research, including functionality and appropriate use cases;
- Climate risk metrics and reporting, with a focus on metric differences and reporting applications;
- Use of climate risk and scenario analysis to evaluate potential economic impacts and implications for security valuation; and
- The connection between our climate capabilities and our commitment to managing net zero aligned portfolios.

These sessions were mandatory for teams in risk, implementation, portfolio management, and research, but were also made available to all Investment Division associates supporting sustainable investing strategies.

### 1.4.3 Educating and advising clients

We provide a range of training and development opportunities for our client base to ensure that our clients are kept abreast of key industry developments. Our annual training schedule is shaped by feedback received through surveys, alongside topics identified by our in-house experts. We also share timely insights and thought leadership content through our reporting, blogs, case studies and updates on LinkedIn.

In 2025, we provided comprehensive training to our clients on identifying, assessing, and managing climate-related risks and opportunities. This included our defined benefit pension clients, who are subject to the UK's climate disclosure regulations. At the same time, we reinforced our commitment to data transparency by introducing refined sustainability reporting for our small- to mid-sized OCIO clients which ensured meaningful adoption. We also delivered targeted training on how to interpret and apply the insights from this new reporting specific to our clients' needs.

# Climate risk measurement

2

# 2. Climate risk measurement

In the previous section, we detailed our governance mechanisms which support the transition to a low-carbon economy. This section outlines how we identify and measure climate risks and opportunities within client portfolios, as a precursor to investment management.

## 2.1 Policies and conditions

At Russell Investments, we integrate sustainability risk management into our investment solutions by identifying, evaluating, and addressing relevant risks across manager research, portfolio management, and through implementing proprietary solutions. This work is guided by our formal **sustainability risks policy** and further supported by our dedicated Climate Policy, which acknowledges climate change as a systemic and distinct financial risk – and opportunity – which demands a forward-looking, strategic response.

Our climate investing approach is built on five core components that help shape how we navigate climate-related risks and opportunities across portfolios. At the centre of our process is a **client-led perspective:** we engage with our clients to understand their long-term investment goals and sustainability priorities, ensuring that our climate considerations are aligned with their objectives. We also recognise that the transition to a low-carbon economy is driving **structural market changes**. Our investment strategy is designed to anticipate and respond to shifts in policy, technology, and consumer behaviour. We work closely with investment managers who demonstrate a proactive approach to managing climate risks while seeking opportunities for **long-term growth.**

**Transparency** is another key priority. We are committed to providing clients with clear and consistent disclosures on climate exposures and advocating stronger financial reporting standards across the industry. At the same time, we take a systemic view of risk – monitoring broader

### Sustainability risk policy

Russell Investments' policy is to integrate sustainability risk management in our investment solutions by identifying, evaluating, and managing relevant risks in our investment manager review process, portfolio management, and through implementing proprietary solutions. We believe sustainability risks are most relevant to investment outcomes when they exhibit financial materiality, and, like all investment risks, are incorporated by balancing expected risk with expected reward.

In managing investment solutions, we consider financially-material sustainability risks in the context of expected rewards using a blend of inputs from sources including, but not limited to, investment managers, third-party data sources, and Russell Investments propriety analysis. Furthermore, we incorporate bespoke sustainability risk management based on clients' requirements for customised mandates. We also seek to collaborate with our advisory clients to consider, monitor, and manage sustainability risk priorities in their portfolios.

financial vulnerabilities linked to climate change and engaging with market participants to promote resilience and stability.

Underpinning all of this is our commitment to **data-driven decision-making**. We employ a range of tools and analytics to stay ahead of evolving regulations, best practices, and emerging scientific insights. These resources enable us to continually refine how we assess and manage climate risks across asset classes and investment strategies. Together, these principles inform how we integrate financially material sustainability risks into our investment approach and support our broader mission of delivering resilient, forward-looking outcomes for our clients.

We consider financially material sustainability risks in the context of expected rewards, drawing on a range of inputs including investment managers, third-party data sources, and Russell Investments' propriety analysis. For customised mandates, we design and implement tailored climate and sustainability risk management strategies and controls; for advisory clients, we collaborate on methods to consider, monitor, and manage sustainability risk priorities in their portfolios.

Gaining a deep understanding of financially material sustainability risks – and how they are identified – is a clear objective for all Russell Investments' portfolio managers. Our process for ensuring this happens, called "Enhanced Oversight", is described in Section 3 of this report.

## 2.2 Tools and process

Effectively managing climate-related risks requires robust tools and processes tailored to the complexity of climate-aware investing. Our approach addresses both transition and physical climate risks through a range of measurement techniques, including portfolio carbon footprinting, temperature alignment assessments, and scenario analysis. These tools help us evaluate current exposures, identify vulnerabilities, and assess alignment with long-term climate goals such as net zero.

### 2.2.1 Identifying climate change considerations in our investments

When identifying climate-related risks and opportunities we consider several factors in our analysis.

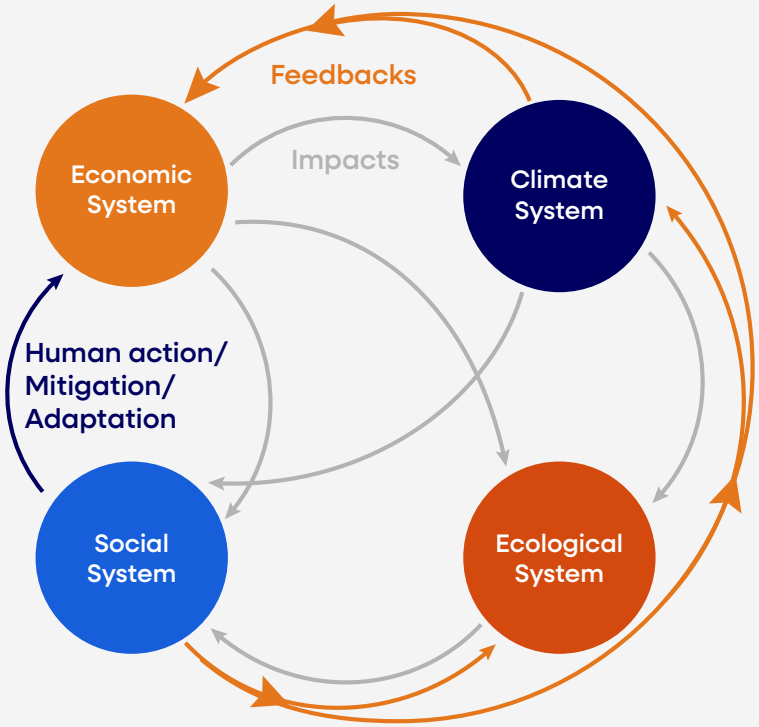
- **Type of risk:** risks due to climate change can be broadly categorised as either transition risks or physical risks.
  - **Transition risk** refers to risks arising from the shift to a low carbon economy from policy, legal, technology, and/or market changes.
  - **Physical risk** refers to the physical impacts on our world due to climate change. This includes event-driven (acute) risks or longer-term shifts (chronic) in climate patterns. Physical risks can directly damage assets and indirectly impact the supply chain.
- **Time horizon:** risks will manifest over different time horizons.
  - **Short-term:** a one-to-three-year time horizon representing a company's reporting period.
  - **Medium-term:** up to a ten-year time horizon representing the traditional business forecasting and strategic planning for most businesses.
  - **Long-term:** a time horizon beyond ten years out to 2050, wherein the physical impacts from climate change will intensify and policy actions will be clearer than present day.

For example, for a real asset strategy, we may evaluate the physical risks of rising sea levels or increased storm frequency over a long-term horizon, especially for infrastructure located in coastal regions. At the same time, a global equity portfolio may face transition risks in the medium term from tightening carbon regulations or shifting consumer demand, particularly in energy-intensive sectors such as utilities or manufacturing.

**Spotlight:** Interconnecting climate and nature

We recognise that climate change and nature loss are deeply intertwined and mutually reinforcing. Climate change accelerates biodiversity loss, while the degradation of natural ecosystems – such as forests, wetlands, and oceans – undermines their role as carbon sinks, reducing their ability to absorb greenhouse gases. This creates a damaging feedback loop: climate change drives nature loss, which in turn intensifies climate change. The resulting impacts can have broad economic consequences, affecting growth, employment, inflation, policy, and ultimately, the risk and return profile of investments. Considering this, we believe an integrated approach to managing climate and nature risks is essential. Addressing both together is necessary to fully understand and respond to the systemic risks they pose to financial and macroeconomic stability.

## Exhibit 5: Cascading effects linking climate change and nature degradation




Source: Adapted from Abram and others (2019), Figure 1.1e.

Natural capital is a long-standing engagement priority within our active ownership programme. In 2024, in response to market momentum and improved data availability, we began exploring how to evolve our approach beyond engagement alone. We are actively assessing how emerging data sources can support deeper analysis of nature-related risks and opportunities, providing more granular company and asset-level insights. In addition, we are exploring how best to equip clients with the insights and capabilities needed to address nature-related risks across their portfolios. This work includes considering how nature-related risks intersect with our broader climate strategy – particularly through issues such as deforestation, which impacts both carbon emissions and ecosystem health.

Additionally, as members of the TNFD Forum, we are closely following the development of the Taskforce's recommendations and recognise their alignment with the TCFD. Throughout this report, we reflect on nature-related considerations tied to our climate strategy. This marks an important step as we prepare for more comprehensive nature-related disclosures and support our clients on their journey toward TNFD aligned reporting.

As part of our broader approach to managing climate-related risks, we apply a range of analytical tools to assess how climate factors could affect asset values over time. These tools – carbon footprinting, scenario analysis, and temperature alignment metrics – enable us to quantify and monitor the potential impacts of climate change across our portfolios. While data gaps and model limitations persist, especially in emerging methodologies, we are committed to evolving our approach as insights and technologies improve. The following section outlines how we use these tools to evaluate climate risk exposures, inform investment decisions, and enhance portfolio resilience under a variety of future climate scenarios.

## 2.2.2 Measuring climate in our investments

Russell Investments employs a range of methodologies and tools to assess the climate risks and opportunities of an investment portfolio, including:

- Carbon footprinting
- Temperature alignment
- Scenario analysis

### Carbon footprinting

At Russell Investments, we primarily use two groups of metrics to measure the carbon footprint of our investments: **carbon intensity** and **financed emissions**. These metrics together provide a more holistic view of the carbon-related risks and impacts across our portfolios.

- **Carbon intensity** (Weighted Average Carbon Intensity or WACI) helps us assess the level of exposure to carbon-intensive companies within a portfolio. A higher carbon intensity indicates greater exposure to companies who are less carbon efficient.
- **Financed emissions** represent the total greenhouse gas emissions attributed to a financial institution through their lending and investment activities.

### Temperature alignment

Building on the available tools for our investment teams, in 2023 we expanded our climate risk analytics to focus on Planetrics' temperature alignment metric. This projects the temperature rise (relative to pre-industrial levels) with which the listed equity or corporate debt asset is aligned. This forward-looking metric supports our risk analysis process in that investment teams can see where a company's current actions are projected to align.

### Scenario analysis

Climate scenario analysis is an important component of our investment process and a useful decision-making tool, and we have continued our partnership with Planetrics to support our climate risk modelling capabilities. Planetrics provides climate scenario data specifically for companies in the financial industry. They focus on climate stress testing portfolios, mapping out physical and transition risks across funds, and quantifying the impacts from various climate scenarios.

Russell Investments uses three scenario narratives from the Network for Greening the Financial System (NGFS)[1]: the hot house world scenario; a net zero 2050 scenario; and a delayed transition scenario.

[1]As recommended in the TCFD guidance, scenario narratives should be relevant, challenging, and distinctive. They should focus on different combinations of the key factors and should illuminate future exposure to both transition and physical climate-related risks and opportunities.

## Exhibit 6: NGFS climate scenarios descriptions and characteristics

| Scenario | Description | Median 2100 warming (unless otherwise stated) | Net zero ($CO_2$) year | Technology change | Carbon dioxide reduction assumption | Regional policy variation |
|---|---|---|---|---|---|---|
| Hot House World (current policies) | Existing climate policies remain in place, but there is no strengthening of ambition level. Thus, there is no transition risk. Heightened physical risks are assumed through high climate sensitivity, specifically 90th percentile temperature increase (4.2°C by 2100), high levels of ice sheet melt, and higher responsiveness of tropical and European windstorm frequency and intensity to changing temperatures. | 4.2°C (90th percentile) | N/A | Slow change | Low use | Low variation |
| Delayed Transition | Imposes the 2°c target in 2100 and allows for tem-porary overshoot. Annual emissions do not de-crease until 2030. Strong policies are then needed to limit warming below 2°C. This scenario includes regional carbon price variation. Regional net zero targets for countries with clear commitments (Chi-na, Japan, EU, and USA) are applied from 2030 onwards but for other countries ambition equiva-lent to the overall temperature target of below 2°C in 2100 is assumed leading to strong regional differ-entiation. | 1.6°C | N/A | Slow until 2030; fast thereafter | Low/ medi-um use | High variation |
| Net Zero by 2050 | Limits global warming below 1.5°C (the median temperature returns to 1.4°C in 2100, after limited temporary overshoot) through stringent climate polices and innovation, reaching global net zero $CO_2$ emissions around 2060. Some jurisdictions such as the US, EU, and Japan reach net zero for all GHGs by 2050. | 1.4°C | 2050 | Fast change | Medium/ high use | Medium variation |

Source: Planetrics based on NGFS technical documentation (2022)

These scenarios are the first of a four-step modelling framework developed by Planetrics. This framework translates climate scenarios into economic shocks, models the resulting asset value streams using company and industry-level data, and then discounts those streams back to estimate the present value financial impact at individual security and portfolio levels.

The final output of the scenario analysis is an estimated financial impact shown as a percent gain or loss on the portfolio for each of the different climate scenarios based on a timeline out to 2050, discounted back to today.

## Key observations from climate scenario analysis

### Exhibit 7: Climate Scenario Analysis: Impact on Portfolio Value

| Fund | Scenario | Impact on value today (combined) | Impact on value today (Physical) | Impact on value today (Transition) |
|---|---|---|---|---|
| Russell Investments' Portfolio | Hot house world | -0.71% | -0.71% | 0.00% |
| | Delayed transition | -2.49% | -0.30% | -2.19% |
| | Net Zero 2050 | -2.85% | -0.21% | -2.64% |

Source: Russell Investments, Planetrics[2] as of 31 December 2024.

Our scenario analysis showed a slight improvement in financial impacts compared to 2023, with results across all three scenarios becoming marginally less negative when considering both transition and physical risks. However, we did note a small increase in losses from physical risks in the delayed and net zero scenarios. Overall, the impact on the portfolio remains limited, largely due to the high diversification of our global holdings.

Looking ahead, we're enhancing our scenarios to better capture how macroeconomic shocks caused by physical impacts of climate change might drive top-down financial impacts, an area where we expect to see more pronounced negative effects.

### Evolution of our physical risk modelling capabilities

Acknowledging the limitations of existing climate risk models, we have been working to enhance how we assess the financial impacts of physical climate risks under high-warming scenarios. In collaboration with our modelling partner, Planetrics, we are testing an updated methodology based on NGFS scenarios that incorporate both direct and indirect impacts of physical climate risks.

This enhanced model complements the traditional bottom-up approach, which focuses on company-specific hazards, by adding a top-down economic lens. Specifically, it introduces a GDP-level shock to reflect how chronic and acute physical climate events, such as floods, cyclones, heatwaves, and droughts, can erode national productivity over time. For example, the cumulative economic strain from repeated extreme weather events may limit a country's capacity to recover, ultimately impacting long-term growth and company valuations. The effect is scenario-dependent, with materially greater value impacts observed in higher-warming pathways, such as the Hot House World scenario, compared to more orderly transitions like Net Zero by 2050.

While we are still completing our review of the new methodology, we are optimistic that this improvement will allow us to better capture system-wide economic impacts that are not immediately apparent through direct physical damage alone. By incorporating NGFS projections of GDP effects from climate hazards, we aim to provide our investment teams with a more comprehensive set of climate risk scenarios to inform decision-making.

[2]This figure has been created by Russell Investments drawing on selected data provided by Planetrics Ltd (which does not include investment advice). The figure represents Russell Investments' own selection of applicable scenarios and/or its own portfolio data. Russell Investments is solely responsible for such scenario selection, all assumptions underlying such selection, and all resulting findings, conclusions, and decisions. Planetrics Ltd. is not an investment adviser and has not provided any investment advice.

## Exhibit 8: Snapshot of the climate risk identification and assessment process

| Risk or opportunity identified | Description | Examples of assessment tools | Most relevant time horizon |
|---|---|---|---|
| **Transition Risk** | **Risks arising from the shift to a low carbon economy** | **Scenario analysis (esp. transition scenarios), metrics** | **Medium-term** |
| Changes in cost | Price on carbon, costs of abatement | Carbon footprinting metrics | Short- and medium-term |
| Changes in demand | Demand destruction and creation arising from shifts in demand | Scenario analysis (esp. transition scenarios), metrics on green revenues or climate solutions, exposure to potentially stranded assets | Short- and medium-term |
| **Physical risks** | **Physical risks can be acute or chronic** | **Scenario analysis, (esp. hot house world scenarios)** | **Long-term** |
| Acute | Increased severity of extreme weather events | Scenario analysis (esp. Hot House World scenarios), asset-level risk mapping | Relevant short-term but increasing severity long-term |
| Chronic | Changes in weather patterns, rising temperatures, rising sea levels | Scenario analysis (esp. Hot House World scenarios), estimated sensitivity to productivity impacts, heating/cooling days | Medium- and long-term |

Source: Russell Investments, for illustrative purposes only.

### 2.2.3 Management of climate risks and opportunities

Russell Investments applies a multi-layered approach to managing climate-related risks and opportunities in our investment process. Our approach includes formal policies (Section 2.1), investment management practices (Section 3), active ownership (Section 3.5), and offering climate aware solutions (Section 3.2).

We routinely assess our management approach to ensure the multi-layered process remains functional for our evolving needs. As shifts in our approach are identified, we follow the governance process outlined in Section 1 of this report to formally amend our practices.

## 2.3 Tailoring climate risk management by asset class

As an Outsourced Chief Investment Officer (OCIO), Russell Investments manages portfolios that are multi-asset and multi-manager. As a result, our approach to identifying, measuring, and managing climate-related risks must be tailored across asset classes rather than uniform. We apply a top-down framework guided by our Climate Policy, recognising that each asset class differs in both data availability and the expectations we set for underlying strategies.

Data availability and methodological frameworks are most developed for listed equities and corporate debt. In these asset classes, we evaluate company-level alignment to net zero pathways, assess the credibility of climate targets, and monitor key indicators such as emissions intensity, transition risk exposure, and sectoral alignment with decarbonisation goals.

In parallel, we monitor the carbon intensity of our sovereign bond exposures using country-level emissions data. Recognising the growing importance of sovereign climate risk, we are actively exploring refinements to assess net zero alignment across the sovereign asset class.

In private equity, we do not rely solely on third-party sustainability-data providers. Instead, our due diligence includes a proprietary sustainability questionnaire, dedicated sustainability review meetings, and direct assessments of manager policies, practices, and disclosures. We collect publicly reported data where available, including disclosures aligned with the ESG Data Convergence Initiative. Additionally, we partner with a third-party vendor, Apex, to produce portfolio-level carbon footprint reporting. This multi-source approach provides a more robust understanding of how sustainability factors, particularly climate-related risks, are embedded in manager strategies and oversight.

These asset class-specific insights enable us to tailor climate integration based on the characteristics and available data for each segment of the portfolio. We will continue to explore and integrate new climate risk measurement techniques for other asset classes such as private real estate and alternatives. Since data availability and methodologies specific to these asset classes are still developing, we leverage the managers we hire to assess these risks.

# Climate-aware investment management

3

# 3. Climate-aware investment management

Building on the concepts outlined earlier, this section details how our investment teams integrate climate-related risks and opportunities across our investment capabilities. It highlights the steps we take to embed climate considerations into decision-making and how we monitor progress over time – focusing on manager selection, portfolio management, and active ownership.

## 3.1 Russell Investments' approach to client portfolios

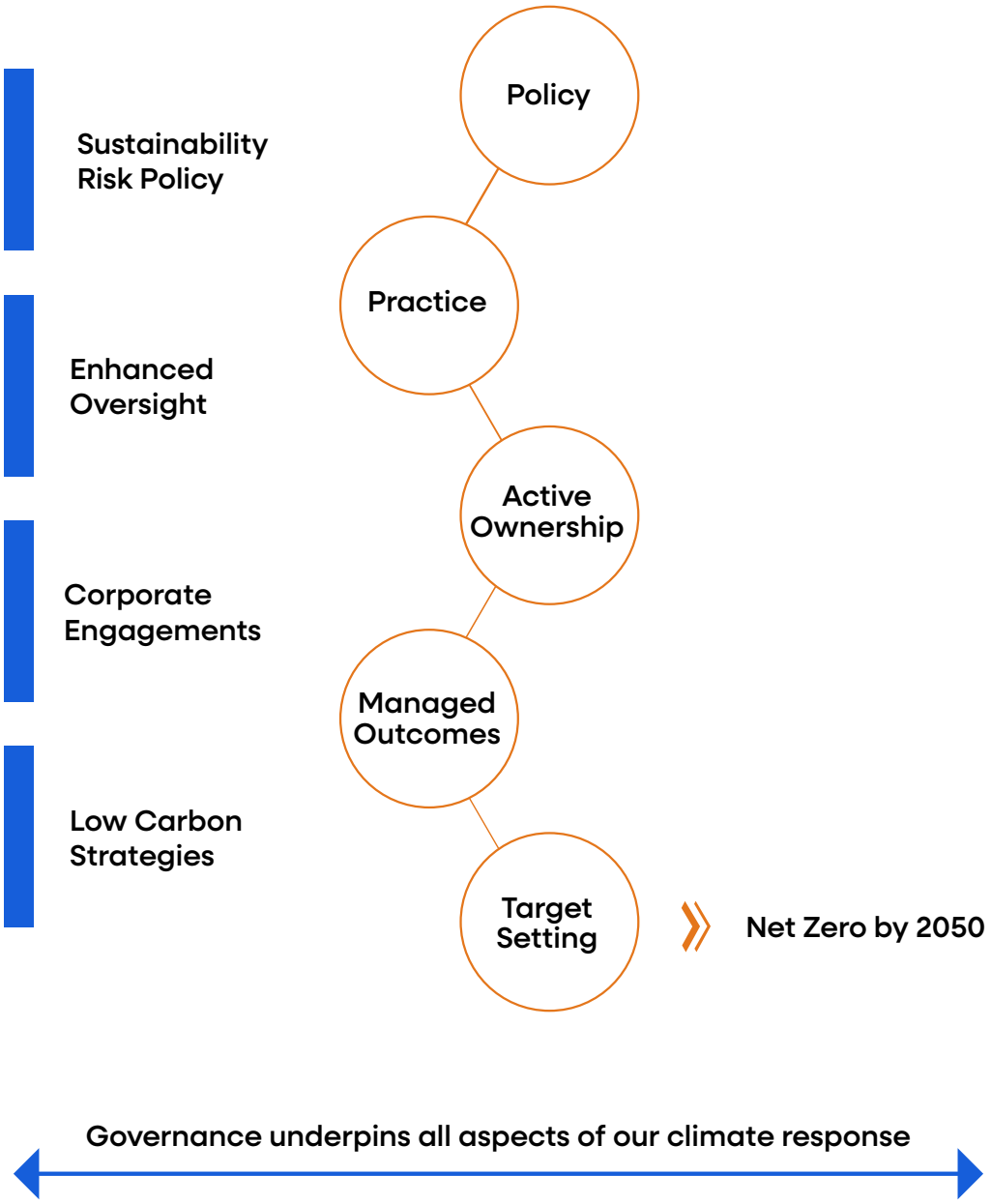
To meet client directed climate goals, we utilise our open architecture investment platform, proprietary tools, and third-party research and data to design and deliver climate-aware solutions. Examples include:

- Embedding a specific carbon reduction target such as 25% or 50% reduction in weighted average carbon intensity or exposure to fossil fuel reserves;
- Combining complementary specialist managers to achieve specific thematic exposures with greater transparency and control over climate-related measures; and
- Implementing carefully designed allocations to systematic sleeves that complement the rest of the portfolio's risk and sustainability exposures.

To support our clients in meeting their sustainability and climate goals, Russell Investments offers a range of tailored investment solutions that integrate climate considerations into portfolio design and implementation. Focusing on one such solution, in 2024 Russell Investments launched our Multi-Asset Future Growth Fund which seeks to deliver both investment and sustainability outcomes. The Fund is a total portfolio solution where both investment and sustainability requirements are assessed, utilising a multi-asset approach. The total carbon footprint of the Fund's investments, which include equities, equity-related instruments, and corporate debt, will be at least 25% lower than the combined carbon footprint of the MSCI All Countries World Index (for equities and equity-related instruments) and the Bloomberg Global Aggregate Credit Index (for corporate debt). The Multi-Asset Future Growth Fund is a tangible example of the climate-aware investment solutions Russell Investments offers our clients. As of 31 December 2024, we had approximately $14.59bn in carbon-managed strategies.

Our approach to our clients' net zero transition is bespoke. As this space evolves, we continually evolve our approach to incorporating climate risks into our investment capabilities while incorporating new data and frameworks. We recognise that clients have varying investment objectives and time horizons. Our approach to a client's climate transition is offered as part of a flexible and collaborative process, ensuring alignment with each client's unique goals.

## Exhibit 9: A multi-layered approach to our climate response – key pillars




Source: Russell Investments, for illustrative purposes only.

## 3.2 Investment solutions embedded with climate change considerations

Our clients invest to achieve real-world, future outcomes - whether funding retirements, supporting educational goals, or advancing an organisational mission. Achieving these goals requires navigating the financial implications of climate change. We recognise that each client has unique circumstances and objectives, and we incorporate these into customised investment strategies that consider both climate-related risks and opportunities alongside broader investment outcomes.

As a global solutions provider, we employ a structured "Design, Construct, and Manage" framework to build portfolios aligned with client needs. While not all clients pursue explicit climate alignment, we integrate climate considerations throughout the investment process – spanning strategic asset allocation, capital markets and manager research, portfolio construction, and active ownership – where doing so can improve long-term financial resilience and return potential.

### 3.2.1 Design

Central to the "Design" step of our investment process is taking client preferences into consideration. We work with investors to establish clear objectives and to fully understand their preferences, constraints, and circumstances. A standard approach in the production of capital market assumptions (CMAs) is to assume key economic and financial variables will revert over time to their long-run trend or reach some sort of "equilibrium" level.

However, incorporating climate change risk into these long-run assumptions is a more complex task requiring probabilities around a range of future climate scenarios. To strengthen our climate modelling toolkit, Russell Investments partners with Planetrics, a third-party provider, to produce baseline CMAs that use historical long-run economic and financial data (referred to as "climate-agnostic CMAs"), and then "shock" the CMAs based on different climate scenarios and their potential economic and financial impact to produce "climate-adjusted CMAs".

This enables us to compare the potential portfolio impact of different climate scenarios across asset classes and exposures. We use our climate-adjusted CMAs to support clients who want to further understand the potential impact of various climate scenarios on their asset allocation decision. This enhancement also supports clients' climate-related disclosure requirements.

### 3.2.2 Construct

In the "Construct" phase, we identify and implement investable strategies that deliver targeted exposures and excess returns through skilled active management. Using an open-architecture approach, we combine top-performing managers and systematic strategies to advance the allocations defined in the Design phase. At this stage, we can also incorporate client preferences for strategies aimed at specific climate-related outcomes.

Within our open-architecture approach, manager research teams rigorously evaluate strategies to identify top performers. When building multi-manager portfolios with sustainable objectives, portfolio managers apply an additional framework to assess the sustainability and climate integration of selected strategies.

Portfolio managers choose from highly rated active managers, balancing sustainability assessments with key investment criteria, return targets, and exposure profiles. This evaluation is guided by our I-P-O framework –Intent, Process, and Outcome – detailed further in Section 3.4.

### 3.2.3 Manage

The goal of the "Manage" phase is to keep portfolios aligned with objectives through dynamic market adaptation, effective risk management, and efficient implementation.

Sustainability risks – like market or credit risks – are identified, assessed, and managed on an ongoing basis. Portfolio managers use climate metrics, proprietary scores, manager reporting, and sub-adviser insights to monitor material risks. To address them, they can: 1) adjust portfolio exposures where appropriate, including the use of systematic investment sleeves or decarbonisation techniques; and 2) collaborate closely with our active ownership team to align investment decisions with proxy voting and engagement efforts.

## 3.3 Quantitative solutions for climate considerations

Russell Investments has a longstanding history of partnering with clients to design investment strategies that explicitly manage climate-related outcomes such as carbon emissions, fossil fuel reserves, and renewable energy exposure. We first introduced our low carbon strategy in 2015, aiming to reduce exposure to high carbon emitters and companies with significant fossil fuel reserves. In 2019, we expanded the framework to incorporate targeted exclusions and greater emphasis on renewable energy production. Our latest update, Decarbonisation 3.0, marks the third major evolution of the strategy, extending the approach beyond risk reduction to include more deliberate exposure to companies developing climate solutions, such as renewable energy and electrification technologies.

Our research shows that traditional portfolio decarbonisation approaches can unintentionally reduce exposure to companies that are enabling the low carbon transition. This is because many climate solution providers tend to operate in higher-emitting sectors like industrials, materials, and utilities.

While this outcome may seem counterintuitive, it underscores a central challenge: companies playing a critical role in climate mitigation can still have above-average carbon footprints due to the nature of their operations. The aim of our latest strategy enhancement is to preserve the intended reductions in carbon emissions and fossil fuel reserves, while explicitly recognising and incorporating the role of climate solutions, allowing us to better differentiate between carbon-intensive companies.

## 3.4 Portfolio management practices

Portfolio managers play a central role in managing portfolio risks, including those related to climate. We embed sustainability expertise directly within our investment teams – ensuring climate risk management is integrated seamlessly into portfolio design and day-to-day decision-making.

### 3.4.1 Intent-Process-Outcome framework

For mandates with explicit sustainable objectives, portfolio managers apply Russell Investments' **Intent–Process–Outcome (I-P-O) framework** – a structured methodology used to evaluate and select strategies with credible sustainability integration.

- **Intent** assesses the strategy's stated goals and philosophy, focusing on the commitment to sustainability outcomes.
- **Process** examines the consistency and quality of ESG integration and responsible investing practices at the fund level, supported by our proprietary ESG rankings.
- **Outcome** measures the tangible sustainability characteristics of a strategy, which may vary by asset class but can include indicators such as target investment type, ESG risk ratings, alignment with thematic goals, or low carbon emissions.

Through close collaboration and clear documentation, research analysts and portfolio managers collaborate to apply the I-P-O framework, using a clear and consistent process to validate a strategy's alignment with sustainable fund objectives before inclusion.

### 3.4.2 Enhanced Oversight

Beyond structural design, portfolio managers use our Enhanced Oversight (EO) process to assess and manage sustainability risks, including climate change effects, on an ongoing basis. EO focuses on both broad themes and specific securities using:

- **Proprietary quantitative analysis** to monitor material sustainability risks at the company and portfolio level;
- **Sub-adviser insights** to assess financially material sustainability issues and their influence on investment decisions; and
- **Independent third-party research** to complement internal views with external ESG intelligence.

Unlike a rigid scoring system, EO offers a nuanced forward-looking view of sustainability risks. Depending on the findings, EO may lead to actions such as:

- Reassessing assumptions and underlying metrics;
- Consulting with sub-advisers on risk rationale;
- Coordinating with the Active Ownership Team to pursue engagement opportunities; and
- Adjusting portfolio exposures using tools such as systematic sleeves or decarbonisation techniques.

Together, the I-P-O framework and Enhanced Oversight provide a comprehensive approach – aligning portfolio construction with sustainability goals while actively managing risk in real time.

## 3.5 Active ownership

At Russell Investments, active ownership is a core part of how we manage climate-related risks and opportunities. As stewards of capital, we engage with companies on critical climate issues – including emissions reduction, climate governance, and transition planning – to promote effective risk management and long-term value creation.

Through ongoing dialogue, we gain deeper insight into how companies are addressing the financial impacts of climate change and help influence progress on net zero alignment and climate-related disclosures.

### 3.5.1 Proxy voting

For over 30 years, Russell Investments has maintained a global proxy voting programme that underpins our stewardship efforts. Our Proxy Voting Guidelines are designed to support the long-term best interests of clients and are reviewed regularly to ensure alignment with evolving priorities, including climate-related risks.

We view management sponsored "Say on Climate" proposals as a valuable channel for shareholder engagement on corporate climate strategy. While these votes can promote better disclosures and stronger climate commitments, we assess them case-by-case – evaluating the credibility of targets, the governance of the vote, and the materiality of climate risks to the company. Insights from our engagement activities and sub-adviser input also inform our decision-making. Since 2022, we have reviewed all climate-related proposals in this way, supporting those that align with long-term shareholder value.

During 2024, we voted on 210 climate change-related proposals, including a significant portion of "Say on Climate" resolutions. We supported management on 81% of these votes. Industry-wide support for environmental shareholder proposals has declined, reflecting both an increase in overly prescriptive proposals and the recognition that many companies have made substantial progress in their decarbonisation efforts.

In 2024, we voted against climate transition reports at three companies and supported transition plans at 27 others. The majority of these proposals were from European companies, with additional proposals from Canada, Australia, and South Africa.

In the fourth quarter of 2024, Russell Investments' Active Ownership Committee conducted a comprehensive review and drafted updates to our Proxy Voting Guidelines. This forward-looking effort reflects our commitment to aligning stewardship practices with evolving climate expectations and regulatory developments. While updates for the 2025 proxy season were minimal, they reinforce our focus on promoting sound governance and credible climate action, while allowing flexibility for regional market norms.

### 3.5.2 Engagement

As part of our stewardship approach, we engage with companies on key climate-related issues to drive positive change. This includes a company's climate governance structure, climate strategy and risk management, and climate outcomes related to set goals. By fostering ongoing dialogue, we gain deeper insights into climate risks and opportunities, ultimately benefiting our clients by promoting long-term sustainable value creation.

Our unique business model allows us to engage directly with issuers, collaborate with sub-advisers, and leverage providers like Sustainalytics, an independent sustainability research firm. This enables us to amplify our impact on climate change issues and ensure alignment with evolving regulatory expectations and sustainability priorities.

Our engagement programme is structured around six-core focus areas, one of which is Climate Change Resilience. Under this focus area, we recognise that climate change is one of the defining global challenges of our time and, therefore, a material investment issue across regions and industries. We have several key aims when engaging with our holding companies on climate change.

- **Increase transparency:** Russell Investments has been an official supporter of the TCFD since 2019, and we promote its recommendation that companies provide effective climate-related disclosures to enable more informed financial decision making.
- **Robust climate governance structures:** we advocate for companies to have board-level oversight and governance of climate change impacts.
- **Integration of climate considerations into strategic decision-making:** we expect companies to explain how they have incorporated climate-related issues into their business, strategy, and financial planning – including the disclosure of key metrics and risk management processes.

For an in-depth understanding of our active ownership approach, please refer to our 2024 Investment Stewardship Report.

## **Spotlight on nature:** engaging on natural capital management

### Engaging on nature-related risks and dependencies

Russell Investments views engagement as a critical mechanism for investors to assess how companies are identifying and managing nature-related risks that are material to their operations, supply chains, and long-term value creation. Through engagement, we can go beyond reported data and gain a clearer understanding of how companies are responding to the evolving regulatory, physical, and market risks associated with natural capital degradation. This dialogue also enables us to encourage alignment with emerging global frameworks and ensure companies are considering the full spectrum of environmental challenges, from water stress to land use impacts, within their strategic planning.

### Expectations for natural capital management

In line with the TNFD disclosure recommendations, we expect companies to understand and disclose their dependencies and impacts on nature across their value chains. This includes integrating nature-related considerations into governance and risk management structures, assessing potential financial impacts, and developing clear strategies to mitigate and adapt to these risks. Our aim is for companies to implement responsible sourcing practices, prioritise supply chain resilience, and set measurable goals related to ecosystem protection and resource efficiency. Transparency is a core component of our engagement expectations; we view credible reporting on natural capital as foundational to managing nature-related financial risks.

### Biodiversity as a material investment risk

Biodiversity loss is one of the most urgent and complex components of natural capital risk. As ecosystem degradation accelerates, companies with operations or supply chains in biodiversity-sensitive areas face mounting physical, regulatory, and reputational risks. For companies with significant biodiversity exposure or operations in resource-constrained regions, we seek policies focused on restoration, preservation, and efforts to mitigate soil and water contamination. We believe that protecting biodiversity is essential not only for environmental integrity but also for maintaining the stability of long-term investment returns in a nature-dependent global economy.

Examples of companies we have engaged with specific to natural capital management practices can be found in our 2024 Investment Stewardship Report.

# Climate metrics within our investments

4

# 4. Climate metrics within our investments

The investments we make on behalf of our clients represent the largest portion of our carbon footprint. As a global investment manager, the financed emissions tied to our portfolios far exceed those from our direct operations. In this section, we highlight key carbon metrics across asset classes to provide transparency into the emissions profile of our investments and support the ongoing evaluation of climate-related risks and opportunities. Please see Section 6 for further information about the carbon footprint of our own operations.

As an outsourced CIO provider, Russell Investments manages portfolios that are multi-asset and multi-manager. To understand our exposure to climate-related risks, we aggregated approximately USD$225billion of our total traditional assets under management (excluding assets managed for investments services such as transition management) into what we refer to as our Global Portfolio. The analysis provided in this report will utilise the Global Portfolio.

On their own, carbon metrics can be challenging to interpret; however, they serve as a useful baseline for tracking progress against emission reduction targets over time. Comparing the carbon metrics to common benchmarks can also provide useful context.

## 4.1 Observed trends in portfolio climate metrics

### Exhibit 10: Financed emissions

| Fund | Financed emissions – Scope 1 ($tCO_2e$) | Financed emissions – Scope 2 ($tCO_2e$) | Financed emissions – Scope 3 ($tCO_2e$) |
|---|---|---|---|
| Russell Investments' Portfolio | 7,238,358 | 1,707,701 | 48,831,538 |

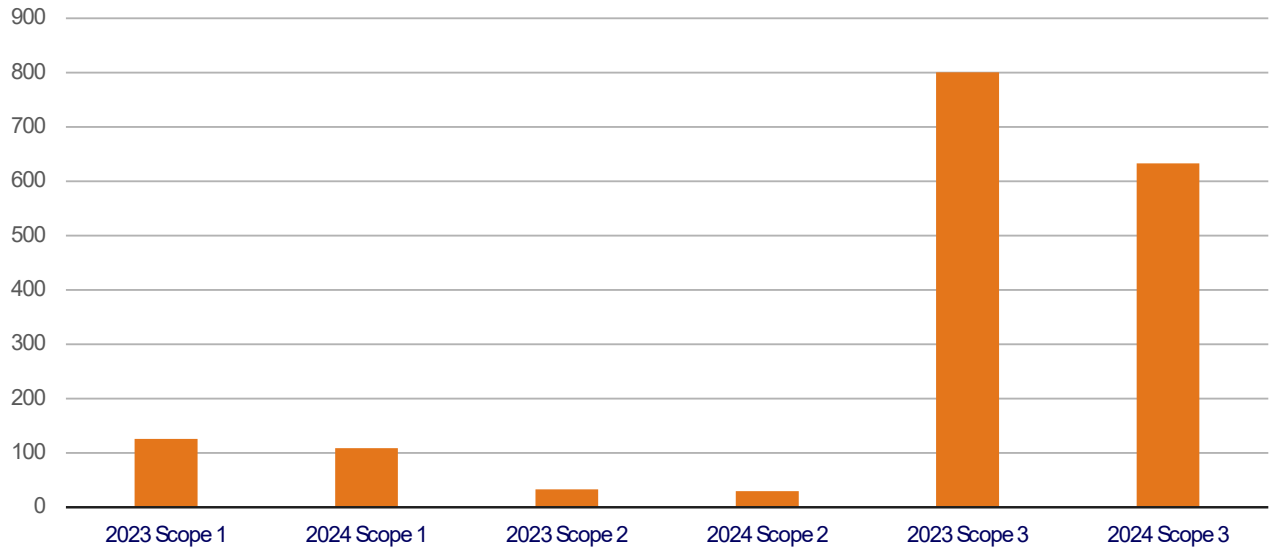
Source: Russell Investments, MSCI as of 31 December 2024.

### Exhibit 11: Weighted Average Carbon Intensity (WACI)

| Fund | WACI- Scope 1 ($tCO_2e$ per million USD revenue) | WACI- Scope 2 ($tCO_2e$ per million USD revenue) | WACI- Scope 3 ($tCO_2e$ per million USD revenue) |
|---|---|---|---|
| Russell Investments Portfolio | 109 | 30 | 633 |
| MSCI World Index | 71 | 21 | 658 |
| MSCI Emerging Markets Index | 250 | 59 | 910 |
| Bloomberg Global Aggregate Credit | 166 | 26 | 761 |

Source: Russell Investments, MSCI as of 31 December 2024.

## Exhibit 12: Weighted Average Carbon Intensity (WACI) 2024 vs. 2023




Source: Russell Investments, MSCI as of 31 December 2024.

Across our investment portfolios, we continue to see encouraging progress in carbon efficiency. The weighted average carbon intensity, inclusive of Scope 1, 2, and 3 emissions, has demonstrated a consistent year-over-year decline. This trend mirrors broader market patterns, as reflected in major benchmarks, and signals a shift towards improved emissions performance among listed companies globally.

While global emissions increased in 2024, the lower WACI implies that our portfolio holdings are adapting business processes to become more carbon efficient per unit of revenue. In other words, companies in our portfolios are reducing the carbon intensity of their operations, even if their total emissions may remain steady or grow due to overall business expansion. Meanwhile, global emissions reflect absolute emissions from all sectors, including high-emitting industries and regions not well-represented in public markets or investment portfolios. For this reason, portfolio-level carbon metrics can improve even as the global total continues to rise.

However, Scope 3 emissions remain a particularly challenging area. We continue to observe substantial volatility in Scope 3 carbon intensity figures, largely due to inconsistent reporting standards, varied estimation methodologies, and a lack of reliable data coverage across sectors and geographies. This instability underscores the complexities of using Scope 3 emissions in investment decision-making and the need for cautious interpretation of these figures.

## Exhibit 13: Sovereign bonds

| Fund | GHG intensity (T/USD million GDP nominal) | GHG per capita ($tCO_2e$ per capita) |
|---|---|---|
| Russell Investments Portfolio | 223 | 14 |
| Bloomberg Global Agg Government | 294 | 12 |

Source: Russell Investments, MSCI as of 31 December 2024.

## Exhibit 14: Temperature alignment

| Fund | Temperature alignment Score °C FY2023 | Temperature alignment Score °C FY2024 |
|---|---|---|
| Russell Investments Portfolio | 3.34 | 3.01 |
| MSCI World Index | 3.17 | 2.86 |
| MSCI Emerging Markets Index | 3.89 | 3.81 |
| Bloomberg Global Aggregate Credit | 3.30 | 2.90 |

Source: Russell Investments, Planetrics as of 31 December 2024.

Our temperature alignment metrics have also shown modest improvement across the Global Portfolio and major benchmarks. While these shifts suggest public companies are increasingly aligning with long-term climate goals, the overall temperature score remains above the thresholds necessary to meet the 1.5°C target outlined in the Paris Agreement. Continued improvement in corporate climate commitments and emissions reduction trajectories will be necessary to close this gap.

### **Spotlight on nature:** nature-related metrics

As part of our efforts to strengthen nature-related risk management and oversight, we are beginning to integrate nature considerations into our portfolio evaluation. This includes using our existing data sets and partnerships to assess portfolio exposure to key nature-related risks.

**Current portfolio exposure**

Through our partnership with MSCI, we are taking initial steps to quantify exposure to two risks: high-risk industries in deforestation fronts and operations in biodiversity-sensitive areas.

When assessing our portfolios for exposure to deforestation risks, we analyse the operational locations of high-risk industries. If a company has three or more physical assets in high-deforestation fronts, then it is flagged for high risk. This metric helps us understand our exposure to risks such as increasing regulatory scrutiny, shifting consumer preferences, and potential operational and supply chain disruptions as forest resources become scarcer or restricted.

Beyond deforestation, we also assess the exposure companies may have to biodiversity-sensitive areas. This assessment flags companies with three or more known physical assets located in areas of high ecological importance. We rely on MSCI's definition, which utilises a collection of underlying metrics, including the Forest Landscape Integrity Index (FLII) and Mean Species Abundance (MSA).

| | High risk industry in deforestation fronts | | Operations in biodiversity sensitive areas | |
|---|---|---|---|---|
| **Portfolio** | **Coverage** | **Exposure % (Weight)** | **Coverage** | **Exposure % (Weight)** |
| MSCI World | 99% | 5% | 99% | 77% |
| Russell 1000 | 99% | 5% | 99% | 80% |
| Russell Investments Global Portfolio | 65% | 3% | 65% | 41% |

Source: Russell Investments, MSCI, as of 31 December 2024.

## Spotlight on nature: nature-related metrics (continued)

Based on our initial analysis, a relatively small proportion of our Global Portfolio is directly exposed to high-risk industries in deforestation fronts. This is not surprising given the global nature of our portfolio and the relatively limited number of countries classified as deforestation fronts. However, due to the challenge of achieving full supply chain transparency, we expect our indirect risk exposure to be more significant.

Unlike deforestation, our analysis indicates that a significant proportion of our portfolio may be impacting or exposed to the decline of biodiversity and ecosystem services. Given this initial analysis, we are working to develop more granular methodologies to better understand this potential risk exposure.

### Advancing nature risk assessment through geospatial modelling

Geospatial modelling is a critical tool for assessing nature-related risks, given the location-specific nature of biodiversity impacts and dependencies. We believe that integrating spatial data is a necessary step toward comprehensive nature risk management.

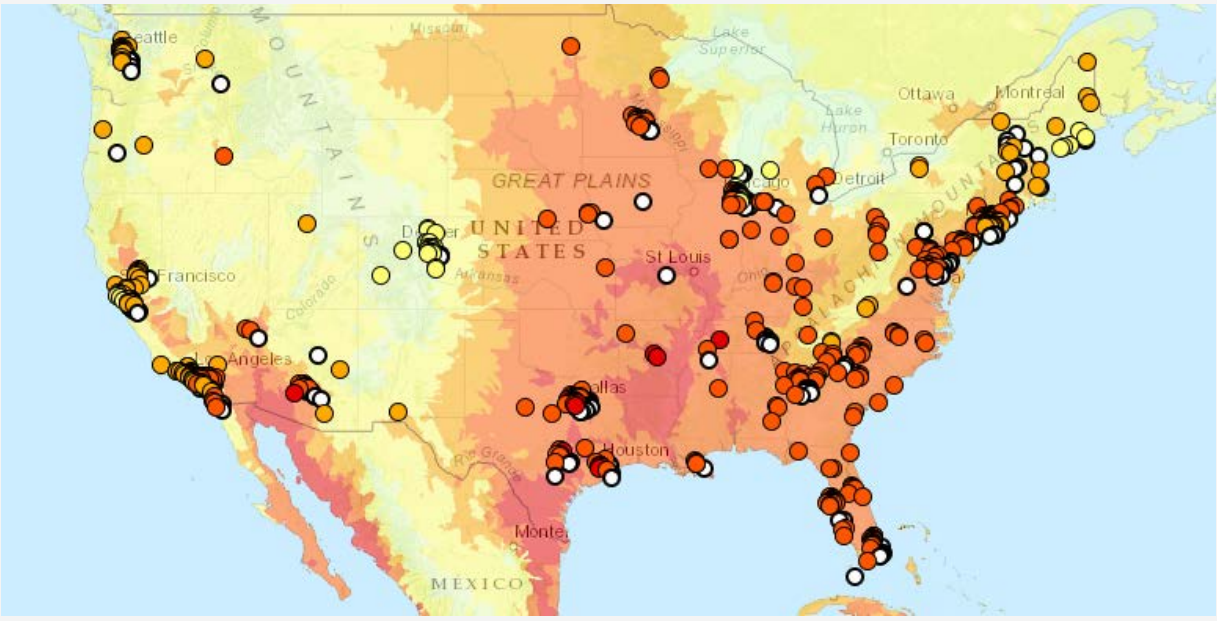
We have begun developing capabilities in this area through our private real asset portfolios, where detailed location data is available.

### Case Study: U.S. based real estate portfolio

Looking at Figures 1 and 2 as examples, geospatial analysis displays how U.S.-based real estate assets in an example portfolio are positioned across the United States alongside extreme heat and tropical cyclone exposure.

Figure 1 highlights how there are particularly high risks along the East and Southeast coasts of the U.S., with extreme heat also extending into the Midwest and Southwest. These areas experience daily maximum temperatures of 32°C or higher on a five-year return cycle. This can impact an investor's real estate assets because heat from extreme temperatures accelerates the expansion of building materials and rusting of metal, which affects the integrity of concrete structures. Additionally, high temperatures cause soil shrinkage, which makes buildings more vulnerable, undermining long-term property maintenance.

**Figure 1: Map of a U.S. based real estate portfolio and its exposure to extreme heat**

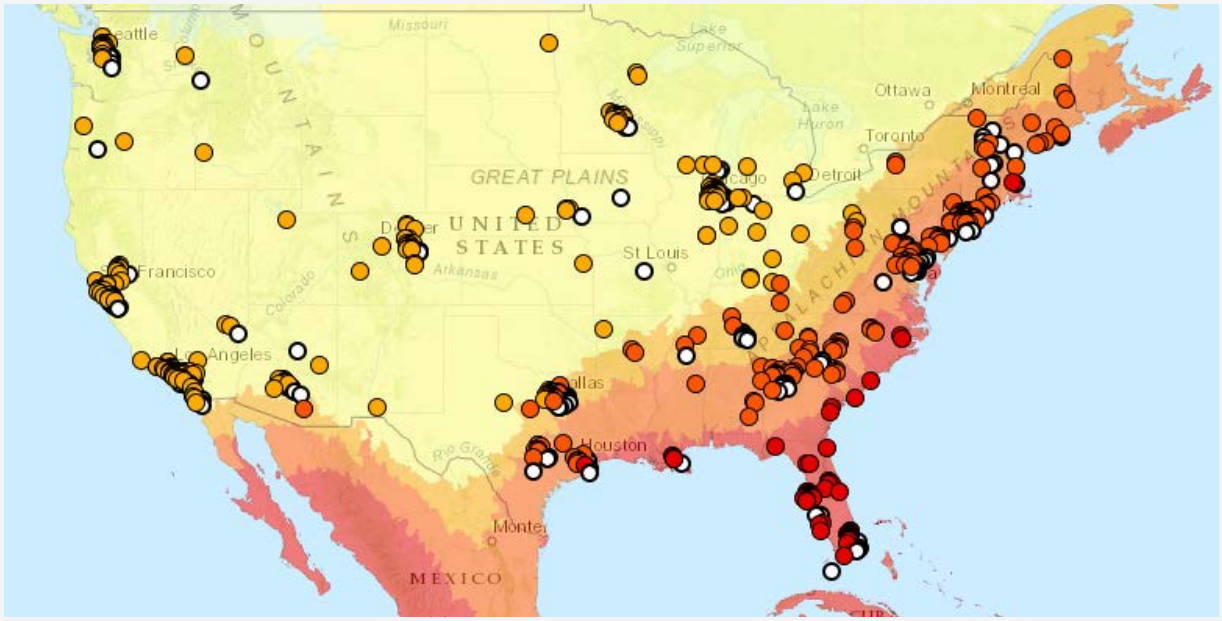



Sources: WWF Biodiversity Risk Filter, Russell Investments.
Note: Data as of 11 October 2024.

## Spotlight on nature: nature-related metrics (continued)

Figure 2 maps assets against risk to tropical cyclones, identifying very high-risk assets as those located in areas that experience wind speeds exceeding 120 mph on a 50-year return cycle. These storms lead to habitat destruction, flooding, and soil erosion, which further exacerbate biodiversity loss by damaging critical habitats for flora and fauna. For real assets in these regions, the risk is not only physical damage to buildings but also the broader impact of degraded ecosystems, which could reduce property values and increase maintenance costs over time.

**Figure 2: Map of a U.S. based real estate portfolio and its exposure to tropical cyclones**




Sources: WWF Biodiversity Risk Filter, Russell Investments.
Note: Data as of 11 October 2024.

This case study shows how biodiversity insights can strengthen investment risk assessments, particularly when detailed asset-level data is available. It marks an early step in our broader effort to integrate climate and nature-related risks. As data quality improves, we plan to expand this work across asset classes and refine our understanding. These efforts are key to helping clients navigate emerging environmental risks and identify nature-related opportunities.

## 4.2 Advancing data integration

To address the challenges related to Scope 3 emissions, we are actively evaluating data quality and estimation methodologies to identify a path forward for broader integration. We continue to monitor frameworks such as the Partnership for Carbon Accounting Financials (PCAF) and regulatory guidance including the EU Sustainable Finance Disclosure Regulation (SFDR) to ensure any incorporation of Scope 3 data aligns with leading industry standards.

In addition, we are in the process of expanding our carbon emissions disclosure to include additional asset classes. We are currently assessing the availability and reliability of emissions data for private real estate, unlisted infrastructure, and private equity. By doing so, we aim to develop a more comprehensive view of the carbon footprint across our multi-asset portfolios, further enhancing our ability to manage climate-related risks and opportunities on behalf of our clients.

## 4.3 Reporting on data coverage

Russell Investments tracks our estimated versus reported carbon data which offers insight into the evolution of transparency and disclosure practices across our underlying investments. We monitor data availability to evaluate progress in climate data quality and corporate accountability. We are at the beginning of this tracking process and aim to report year-over-year changes in our next report.

### Exhibit 15: Data quality

| | Carbon data reported | Carbon data estimated | Carbon data unavailable |
|---|---|---|---|
| Russell Investments Portfolio (FY2024) | 72% | 13% | 15% |

Source: Russell Investments, MSCI as of 31 December 2024.

# Our net zero approach

5

# 5. Our net zero approach

Russell Investments recognises that greenhouse gas (GHG) emissions are a key driver of climate change, which poses material physical and transition risks to companies, markets, and long-term investment outcomes. In response, we support the global goal of net zero GHG emissions by 2050 and recognise the role of investment strategies in contributing to a timely and orderly transition.

As part of this effort, we are pursuing a range of actions in partnership with clients and the broader investment ecosystem:

- Partner with interested asset owner clients and prospects to establish and achieve decarbonisation goals that support their global ambition to reach net zero emissions by 2050 or sooner.
- Set an interim target - guided by client mandates - for the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner.
- Review our interim target at least every five years to reflect evolving practices and changing client needs and preferences.
- Annually disclose the share of AUM managed in line with net zero objectives, including context on investment approaches.
- Maintain a stewardship and engagement strategy that is responsive to client-directed net zero objectives and market developments.
- Engage with market participants, including delegated managers, to support the development of products and services that reflect climate risks and opportunities in line with clients' net zero ambitions.

## 5.1 Setting portfolio climate objectives

Russell Investments leverages the Paris Aligned Investment Initiative's (PAII) Net Zero Investment Framework as our primary target-setting methodology. As part of our commitment, we disclose the targets used to measure and track portfolio alignment with net zero goals. As an interim target, Russell Investments aims to align at least 25% of global assets to net zero pathways by 2030, guided by client-led targets, preferences, and investment mandates.

Where a portfolio is managed in line with net zero standards, we use the following interim targets to measure progress:

- **Asset alignment target:** by 2028, at least 25% of the portfolio's market value will be invested in companies assessed as aligning to net zero;
- **Emission reduction target:** by 2030, achieve a 50% reduction in the portfolio's carbon emissions intensity relative to 2019; and
- **Engagement target:** by 2030, engage with companies responsible for 90% of the portfolio's financed emissions, aiming for them to be either aligned to net zero or actively under direct or collective engagement.

Further, for net zero in-scope portfolios, exposure to thermal coal will be phased-out for OECD countries by 2030 and expanded to the rest of the world by 2040. We have already met our 2025 milestones by aligning over 25% of the portfolio with net zero pathways and engaging with issuers representing 70% of financed emissions.

Throughout 2025, we will review and refine our interim climate targets in line with our established governance processes to ensure they remain ambitious, data-driven, and aligned with evolving best practices. This includes evaluating progress toward our asset alignment, engagement, and emissions reduction goals. We will report on any updates and provide a comprehensive progress assessment in our next TCFD report.

In addition to the above interim targets for certain portfolios, we have also set a goal to reach net zero in our own business operations by 2030. Please see Section 6 for more details on our own operations.

## 5.2 Progress against interim targets

Russell Investments has developed an internal dashboard to monitor our progress across the three interim targets. While the complexity of the climate transition cannot be captured in a single metric, we believe that clear, transparent data points are essential for measuring progress towards net zero targets.

The net zero dashboard allows our investment teams to track progress for each fund which is managed for net zero alignment. Where a portfolio is not meeting its target, our sustainability team partners with portfolio managers to identify actions that will help bring it back on track.

To monitor our goals overall, we also monitor an aggregated Russell Investments Net Zero Portfolio which represents twenty-five percent of the AUM currently in scope for net zero alignment. The table below shows 2024 progress against our interim targets for the aggregated portfolio.

### Exhibit 16: Net zero target progress

| Target type | 2019 Baseline | Target (Year, if applicable) | Current value (31/12/2024) | Status check |
|---|---|---|---|---|
| Asset alignment | 15% of AUM aligned or aligning to net zero | 25% (2025) | **41%** of AUM aligned or aligning to net zero | On track |
| Engagement | 62% of financed emissions aligned or subject to direct or collective engagement | 70% (2025) | **69%** of financed emissions aligned or subject to direct or collective engagement | On track |
| Emissions reductions | 0% | 50% (2030) | **54%** reduction in weighted average carbon intensity relative to 2019 baseline | On track |

Source: Russell Investments as of 31 December 2024.

At Russell Investments, we have developed an asset alignment model to assess the net zero alignment of underlying securities in our portfolios. While the Net Zero Investment Framework (NZIF) provides a foundational reference, our model builds on and customises this framework to reflect our unique investment philosophy and client needs. The model integrates data from open sources, including the Climate Action 100+ benchmark, Transition Pathway Initiative, and Science Based Targets initiative, alongside insights from our climate data providers, MSCI and Sustainalytics.

From these data sources, we assess each company across six criteria which measure a company's alignment to a net zero commitment. When a company reduces emissions to zero, or the level required of their industry in a net zero scenario, they will be assessed as "achieving net zero". Today, almost no companies are already achieving net zero.

Corporate climate disclosures and data availability have evolved significantly since we first developed our net zero alignment model. In 2025, we plan to enhance the model by incorporating newly available data inputs and look to expand its application beyond listed equities and corporate debt to include additional asset classes, further strengthening our ability to monitor net zero alignment across our portfolios.

## Exhibit 17: Assessing asset alignment

| Criteria | Description | Committed to aligning | Aligning | Aligned |
|---|---|---|---|---|
| **Ambition** | Company discloses long-term goal of achieving net zero global emissions. | ✕ | ✕ | ✕ |
| **Targets** | Company has set reduction targets across scope 1, scope 2, and material scope 3 emissions. | | ✕ | ✕ |
| **Transparency** | Company discloses climate related data. | | ✕ | ✕ |
| **Decarbonisation strategy** | Company shows a quantified plan setting out measures to deliver targets. | | ✕ | ✕ |
| **Capital allocation** | Company demonstrates CAPEX consistent with targets. | | | ✕ |
| **Emissions performance** | The reported emissions intensity is in line with stated targets. | | | ✕ |

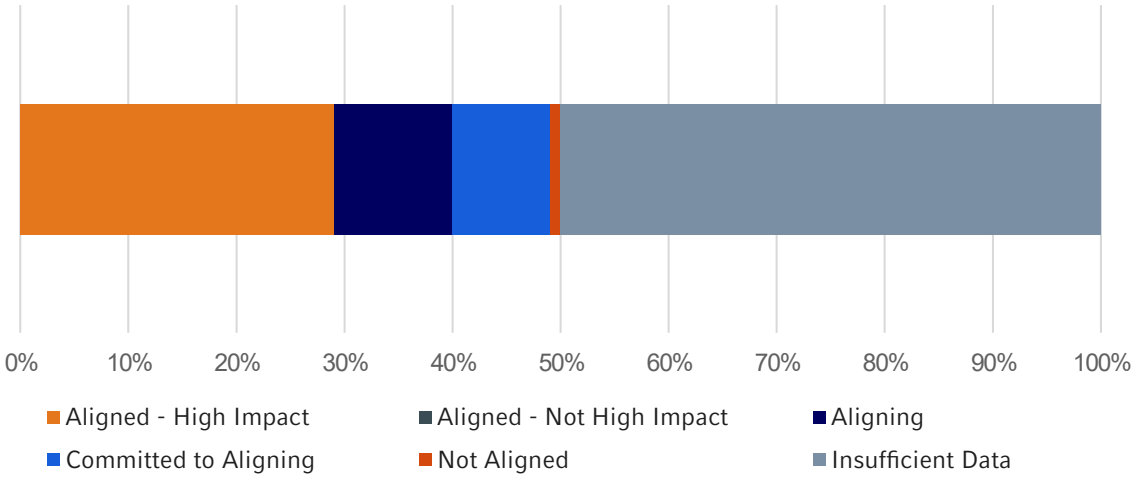
**Achieving net zero emissions**

Company is already aligning with the emissions intensity required by the sector and regional pathway for 2050 and whose ongoing investment plan or business model will maintain this performance

Source: Russell Investments; adapted from the Net Zero Investment Framework 2.0 (IIGCC)

Below, we show the alignment assessment for the Russell Investments Net Zero Portfolio. A key challenge is the lack of vital data for about 50% of the portfolio, reflecting gaps in public datasets. However, we remain optimistic that as companies increase transparency and adopt climate-related targets, this data gap will narrow over time.

## Exhibit 18: Global portfolio distribution




Source: Russell Investments, as of 31 December 2024.

# Our own operations

6

# 6. Our own operations

In 2021, Russell Investments committed to reducing our operational Scope 1 and 2 emissions in line with the global goal of achieving net zero emissions by 2050 or sooner. To support this goal, we engaged an external carbon specialist to complete a comprehensive greenhouse gas (GHG) inventory covering Scope 1, 2, and all relevant Scope 3 (categories 1–14) emissions. This enabled us to establish 2021 as our baseline year for emissions measurement. Our most recent GHG emissions footprint is presented below.

## 6.1 Russell Investments corporate footprint

### Exhibit 19:
### Russell Investments' GHG emission footprint with comparison to base year 2021

| Scope | 2021 (base year) Total Emissions ($tCO_2e$) | 2024 (reporting year) Total Emissions ($tCO_2e$) | % total scope emissions |
|---|---|---|---|
| Scope 1 | 92 | 64 | 0.1% |
| Scope 2 - Market Based | 1,134 | 227 | 0.3% |
| Scope 3 (Categories 1-14) | 112,316 | 72,087 | 99.6% |
| **Total (Market Based)** | **113,542** | **72,378** | **100.0%** |

Source: Russell Investments as of 31 December 2023.
Reported corporate Scope 1, Scope 2, and Scope 3 (Categories 1–14) emissions correspond to the calendar year preceding the fiscal year covered in this report. This lag reflects the data availability and processing timelines associated with our external emissions verification and calculation partner.

In our previous TCFD report, we outlined the development of our net zero target and roadmap for Scope 1 and 2 emissions, guided by best practices such as the Science Based Targets initiative (SBTi) Net Zero Standard for Corporates. Our focus remains on achieving real-world emissions reductions along a credible decarbonisation pathway.

For the 2024 reporting year (with data measured as of 31 December 2023), our Scope 1 and 2 emissions declined significantly under the market-based methodology, largely driven by increased oversight of electricity suppliers. Scope 3 emissions continue to represent the most material portion of our operational footprint, with purchased goods and services (Scope 3, Category 1) comprising the largest share. This is second only to our financed emissions (Scope 3, Category 15).

In 2024 Russell Investments opened a brand-new office in Mumbai, India. Next year's carbon footprint will reflect the impact of this expansion.

## 6.2 Work practices council

In 2021, Russell Investments established the Global Sustainable Work Practices Council, chaired by Chief Operating Officer, Phil Cox. The Council's mission is to identify and reduce the firm's environmental impact by embedding sustainability into day-to-day operations. Its key objectives include:

- Advancing our commitment to net zero by 2050 through targeted internal initiatives;
- Providing a structured framework for setting goals, reviewing progress, and monitoring performance;
- Ensuring consistency in sustainable practices across global offices; and
- Aligning internal operations with the principles we advocate externally to clients and partners;

The Council is supported by regional groups in North America, EMEA, and APAC, which play a vital role in promoting awareness, organising engagement activities, and fostering a culture of sustainability within the firm. Additional initiatives led by these groups are outlined in the following section.

## 6.3 Sustainability innovation across global offices

Throughout 2024, Russell Investments' associates across regions demonstrated their commitment to sustainability through a range of local initiatives aimed at reducing environmental impact and promoting ecological stewardship.

**EMEA:** our London office volunteers partnered with waste management company Recorra and the EMEA Sustainable Work Practices Group to clean up Ernie's Beach at Gabriel's Wharf along the River Thames.

**APAC:** in Auckland, associates supported the Motutapu Restoration Trust's conservation efforts by engaging in nursery work, native planting, and invasive weed removal – critical due to the increased spread of species such as moth plant and woolly nightshade.

In Sydney, the team contributed to habitat restoration at NSW National Parks – Middle Head through planting, weed control, and ecosystem clean-up. These efforts make a tangible difference to the future of Australian habitats by removing invasive species, replanting native plants, and cleaning up to support local ecosystems.

**North America:** employees in New York City and Seattle demonstrated their commitment to environmental sustainability by participating in eCycle programmes to responsibly recycle outdated electronics and office equipment, reducing e-waste and helping divert hazardous materials from landfills.

In Toronto, the office reduced single-use waste by introducing reusable mugs and switching from plastic water bottles to recyclable, eco-friendly, flow water packaging.

## 6.4 Advancing sustainability operations

We lease all our offices, many of which have sustainability certifications and ratings, reflecting how they limit GHG emissions. Please see a map of our geographical footprint below.


Source: Russell Investments, for illustrative purposes only.

In 2024, Russell Investments continued to enhance its operational sustainability by improving waste management, energy efficiency, and responsible procurement across global offices. Initiatives included equipment donations, e-cycling and recycling campaigns, reduced reliance on single-use plastics, adoption of eco-friendly cleaning products, and expanded use of natural ventilation. These efforts reflect our ongoing commitment to environmental stewardship and low-impact workplace practices.

A key focus in 2024 was the development of our new Mumbai office, where we incorporated green building principles to minimise environmental impact and support long-term sustainability goals.

- **Construction and demolition waste management:** systematic waste segregation and responsible disposal practices were implemented, reducing landfill contributions and promoting reuse.
- **Optimised energy performance:** preliminary simulations indicated initial energy savings of 10%, supported by prescriptive compliance with energy standards and efficient lighting systems to reduce Lighting Power Density (LPD).
- **Indoor water use reduction:** installation of high-efficiency fixtures with reduced flow rates contributed to significant water conservation and optimised resource use.
- **Sustainable transport:** introduction of CNG vehicles into the company fleet helped reduce $CO_2$ emissions in 2024, with plans to introduce electric vehicles in 2025.

These efforts showcase our commitment to integrating sustainability into both existing operations and new projects, creating efficient, future-ready workplaces.

# Appendix

7

# 7. Appendix

## A. Carbon footprinting glossary

| METRIC | | SUPPORTING INFORMATION |
|---|---|---|
| **Weighted average carbon intensity**<br>**Also known as: WACI** | Description | Portfolio's exposure to carbon-intensive companies, expressed in tons CO2e / $M revenue. Metric recommended by the Task Force on Climate-Related Financial Disclosures (TCFD). |
| | Formula | $\sum_i^n \left(\frac{current\ value\ of\ investment_i}{current\ portfolio\ value} X \frac{issuer's\ scope\ 1\ and\ scope\ 2\ GHG\ emissions_i}{issuer's\ \$M\ revenue_i}\right)$ |
| | Methodology | Scope 1 and scope 2 GHG emissions are allocated based on portfolio weights (the current value of the investment relative to the current portfolio value). |
| | Sovereign Equivalent | "GHG Intensity (t/USDM GDP Nominal)":<br>The higher value, the more carbon-intense the economy is.<br>$\sum_i^n \left(\frac{Exposure\ to\ Sovereign\ Bond(USD)_i}{current\ portfolio\ value} X \frac{Country\ GHG\ emissions_i}{Country\ GDP\ Nominal\ (m\ USD)_i}\right)$ |
| | Key points +/- | +Metric can be more easily applied across asset classes since it does not rely on equity ownership approach<br>+Generally interpreted as a more risk-oriented approach versus the later metrics, which are more related to aggregate real-world emissions and hence considered more "impact" related.<br>+Metric allows for portfolio decomposition and attribution analysis<br>-Metric is sensitive to outliers |
| **Financed emissions**<br>**Also known as:**<br>**Total Carbon Emissions (EVIC method)** | Description | The absolute greenhouse gas emissions associated with a portfolio, expressed in tons CO2e. Metric recommended by the Partnership for Carbon Accounting Financials (PCAF). |
| | Formula | $\sum_i^n \left(\frac{current\ value\ of\ investment_i}{issuer's\ EVIC_i} X\ issuer's\ scope\ 1\ and\ scope\ 2\ GHG\ emissions_i\right)$ |
| | Methodology | Share of emissions attributable to the investor's holding in the company. If an investor holds an invest-ment worth 5 percent of the company's total financing (enterprise value incl. cash), then 5 percent of the company's emissions are attributable to that investor. Attributable emissions in each company are summed across the portfolio. By using EVIC instead of market cap as the attribution factor, the method can be used for both equity and fixed income. |
| | Sovereign Equivalent | "GHG emissions": Share of sovereign GHG emissions attributable to the investor's share of total debt outstanding.<br>$\sum_i^n \left(\frac{Exposure\ to\ Sovereign\ Bond(USD)_i}{Public\ Debt\ Outstanding\ (USD)_i} X\ Country\ GHG\ Emissions_i\right)$ |
| | Key points +/- | +Metric may be used to communicate the carbon footprint of a portfolio consistent with the GHG proto-col, generally interpreted as more impact-oriented as opposed to risk-oriented and hence is frequently used in target setting<br>-Metric is generally not used to compare portfolios because the data is not normalised, increases in portfolio value (or AUM) will lead to increases in portfolio emissions<br>-Changes in underlying companies' EVIC can be misinterpreted as reductions in real world emissions |

# A. Carbon footprinting glossary (continued)

| Metric | | Supporting information |
|---|---|---|
| **Carbon footprint (EVIC method) Also known as: Financed Emission Intensity** | Description | Total carbon emissions for a portfolio normalised by the market value of the portfolio, expressed in tons CO2e / $M invested. |
| | Formula | "GHG Intensity (t/USDM GDP Nominal)": The higher value, the more carbon-intense the economy is. $\frac{\sum_i^n(\frac{current\ value\ of\ investment_i}{issuer's\ EVIC_i}\ X\ issuer's\ scope\ 1\ and\ scope\ 2\ GHG\ emissions_i)}{current\ portfolio\ value\ (\$M)}$ |
| | Methodology | Financed emissions above, standardised by portfolio value. |
| | Key points | +Metric may be used to compare portfolios to one another and/ or to a benchmark<br>-Metric does not take into account differences in the size of companies (e.g. does not consider the carbon efficiency of companies)<br>-Changes in underlying companies' EVIC can be misinterpreted as reductions in real world emissions |

*Notes: the term 'portfolio' can be defined as "fund or investment strategy" for asset owners and "product or investment strategy" for asset managers. Total carbon emissions and carbon footprint can also be calculated using a company's market capitalisation instead of Enterprise Value including cash though we do not use this because it cannot be used across asset classes. PCAF has recently released new guidance on sovereign emission financed emissions and after review we may elect to change this attribution factor in the future. Sovereign "GHG Emissions per capita" are also displayed at Russell Investments for completeness, but this measure does not translate to the above standard industry uses.*

# B. Supplemental metrics

Following the UK's Department for Work and Pensions mandating TCFD-related disclosures for institutional pension schemes, a standard set of climate-related metrics are increasingly being expected by UK clients and consultants. The following metrics are part of this core template.

| Metric | | Supporting information |
|---|---|---|
| **Data Quality** | Description | Proportion of a portfolio where there is high quality data. Additional climate change metric recommended by the Task Force on Climate-Related Financial Disclosures (TCFD). |
| | Methodology | Calculates the proportion of Scope 1-2 emissions that are verified, reported, estimated or unavailable. |
| | Key points +/- | +Metric allows for a better understanding of ESG data accuracy.<br>+More transparency into the breakdown of data quality.<br>-Does not look into climate change analysis directly.<br>-Estimated data coverage is subject to model risk. |
| **Portfolio Temperature Alignment (Implied Temperature Rise)** | Description | Metric which estimates a global temperature rise associated with the greenhouse gas emissions of a portfolio. It is a forward-looking metric that incorporates current GHG emissions, alongside other assumptions, to estimate expected future emissions. Expressed as a temperature score (e.g., 5 degrees Celsius). Portfolio Alignment climate change metric recommended by the Task Force on Climate-Related Financial Disclosures (TCFD). |
| | Formula | $Temperature\ Score_F = \frac{\sum_{i \in F} Temperature\ Score_i \times GHG\ intensity_S \times Current\ value\ of\ investment\ in\ entity_i}{\sum_{i \in F} GHG\ intensity_S \times Current\ value\ of\ investment\ in\ entity_i}$ |
| | Methodology | Total portfolio temperature alignment is calculated as a weighted average of underlying security temperature scores using sector intensity and AUM weighting. These scores are sourced from Planetrics. |
| | Key points +/- | +Forward looking and accounts for inherent differences in carbon emissions across industries and regions.<br>+Can be compared across different benchmarks, portfolios, and asset classes.<br>-Methodology constantly developing, and is likely to change significantly as quantitative methods are researched further<br>-Complex and opaque regarding the influence of key assumptions. |

# B. Supplemental metrics

| Metric | | Supporting information |
|---|---|---|
| **Data Quality** | Description | Proportion of a portfolio where there is high quality data.<br>Additional climate change metric recommended by the Task Force on Climate-Related Financial Disclosures (TCFD). |
| | Methodology | Calculates the proportion of Scope 1-2 emissions that are verified, reported, estimated or unavailable. |
| | Key points +/- | +Metric allows for a better understanding of ESG data accuracy.<br>+More transparency into the breakdown of data quality.<br>-Does not look into climate change analysis directly.<br>-Estimated data coverage is subject to model risk. |
| **Portfolio Temperature Alignment (Implied Temperature Rise)** | Description | Metric which estimates a global temperature rise associated with the greenhouse gas emissions of a portfolio. It is a forward-looking metric that incorporates current GHG emissions, alongside other assumptions, to estimate expected future emissions. Expressed as a temperature score (e.g., 5 degrees Celsius). Portfolio Alignment climate change metric recommended by the Task Force on Climate-Related Financial Disclosures (TCFD). |
| | Formula | $Temperature\ Score_F = \frac{\sum_{i \in F} Temperature\ Score_i \times GHG\ intensity_S \times Current\ value\ of\ investment\ in\ entity_i}{\sum_{i \in F} GHG\ intensity_e \times Current\ value\ of\ investment\ in\ entity_i}$ |
| | Methodology | Total portfolio temperature alignment is calculated as a weighted average of underlying security temperature scores using sector intensity and AUM weighting. These scores are sourced from Planetrics. |
| | Key points +/- | +Forward looking and accounts for inherent differences in carbon emissions across industries and regions.<br>+Can be compared across different benchmarks, portfolios, and asset classes.<br>-Methodology constantly developing, and is likely to change significantly as quantitative methods are researched further<br>-Complex and opaque regarding the influence of key assumptions. |

Russell Investments

FOR MORE INFORMATION

visit russellinvestments.com