



**Climate change is one of the most pressing systemic risks of our time. Throughout the past year, numerous scientific reports have issued dire warnings regarding climate change impacts, documenting observations of record high temperatures, severe tropical cyclones, devastating wildfires and rising sea levels.**

The number of weather-related, natural catastrophic events has increased by a factor of 5 over a 50-year period, driven by global warming. The Intergovernmental Panel on Climate Change (IPCC) states that greenhouse gas (GHG) emissions must approach net zero by mid-century to keep global warming within 1.5 °C, or well below 2.0 °C by the year 2100. According to the International Energy Agency, net-zero emissions pledges to date cover approximately 70% of both global GDP and CO<sub>2</sub> emissions. Countries are increasingly focused on how to achieve net-zero emissions by 2050.

With the evidence and impact of global warming growing in severity, it is imperative that AIMCo provide transparency for clients and stakeholders regarding how we are managing, measuring and reporting on climate-related investment risks and opportunities. To that end, we are publishing our third report using the Task Force for Climate-related Financial Disclosures (TCFD) framework.

The TCFD framework is designed to provide consistent, comparable and decision-useful climate-related information. By disclosing on the topics of climate-related governance, strategy, risk management and metrics and targets, companies across all sectors can report to clients and stakeholders on how climate risks and opportunities are evaluated, managed and integrated into planning and decision making. TCFD reporting helps stakeholders and the market better understand an organization's position on climate as well as broader financial implications of climate change.

#### TCFD FRAMEWORK



## GOVERNANCE

### **TCFD Recommendation: Describe the board and management oversight of climate-related risks and opportunities.**

#### **Board Oversight**

AIMCo's Board oversees the governance of responsible investment at AIMCo and approves the Responsible Investment (RI) Policy. The Board is regularly briefed on AIMCo's ESG performance, strategy, and RI trends, including those related to climate change. The audit committee of the Board is apprised on progress made by the TCFD working group and this TCFD Report.

#### **Management's Role**

AIMCo's Responsible Investing Committee (RIC) is chaired by our Chief Investment Strategy Officer (CISO) and is comprised of senior executives representing all investment departments. The RIC approves overarching ESG strategy and is regularly briefed on ESG matters such as engagement focus areas, analytics, stewardship and integration activities, including those related to climate change. At AIMCo there is frequent communication on sustainability-related matters across all asset classes and investment functions, with regularly scheduled meetings also occurring between RI, Client Relations and Risk Management. Infrastructure, Private Equity and Real Estate have established sustainability guidelines and committees.

#### **Executive Climate Action Group**

AIMCo is developing a climate action plan informed by internal analysis, focused on our overarching goal of making real world impact and influencing reductions in global greenhouse gas emissions while continuing to achieve our investment return objectives. We will consider viable options to decrease the portfolio's emissions trajectory over time. We intend to consult with clients on this plan and hope to release climate-related targets early next year. The group is supported by research from the TCFD working group and the Responsible Investment team.

#### **TCFD Working Group**

Over the past three years, an internal cross-functional working group has been focused on implementing the TCFD recommendations. The TCFD working group has two streams — one focused on measuring our carbon footprint and the other focused on climate-related scenario analysis. The Responsible Investment department (RI) is responsible for delivering the TCFD Report and convenes and leads the TCFD working group. Membership is inter-departmental, with representatives from Risk Management, Public Equities, Economics and Fund Strategy, Valuations and the CFO's Office. The CFO's office is responsible for reviewing and verifying the methodology and oversees the processes and the accuracy of findings from both streams.

## STRATEGY

### **TCFD Recommendation: Describe the climate-related risks and opportunities identified, their impacts and the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.**

Navigating the transition to the low-carbon economy is a strategic priority for AIMCo. We recognize the business imperative of integrating climate change into our investment strategies, and have identified transition, physical, regulatory and reputational risks of climate change as material to our clients' objectives, especially over the medium and long-term investment horizons.

To date, AIMCo has been focused on tracking and better understanding the emissions profiles of our portfolios before adopting targets. AIMCo is committed to taking action with the best available data and methodologies. Our strategy to manage climate-change risks is multifaceted and evolving, and includes:



1 Exercising shareholder voice by voting to promote climate-related disclosure



2 Engaging with investee companies to promote climate-related disclosure and help transition to a carbon-neutral future



3 Advocating with policymakers, regulators, and stock exchanges to encourage climate-related disclosure guidance



4 Taking an active role in collaborative research regarding appropriate management of key factors such as carbon, plastics, methane, and water, promote best practices and benchmark firms' performance on these metrics over time



5 Measuring emissions across asset classes to conduct historical and future-focused climate-related analysis to identify key drivers of climate risk and resilience

## Scenario Analysis

The TCFD recommends investors conduct forward-looking scenario analysis to better understand potential investment risks and opportunities arising from various warming outcomes. A range of scenarios should be chosen for both physical climate change impacts, such as severe weather events, and for transition-related impacts, like carbon pricing. The analysis should include a “business-as-usual” scenario, resulting in warming of greater than 2°C by 2100, contrasted with at least one low-carbon scenario, resulting in warming of less than 2°C by 2100.

For our 2019 analysis we employed International Energy Agency’s (IEA) qualitative scenarios contrasting various possible outcomes on our public equities holdings under IEA’s low-carbon Sustainable Development Scenario versus its “business-as-usual” or Stated Policy Scenario, modelled to the year 2040. The model revealed various potential sector impacts and opportunities under various warming trajectories.

In our 2021 scenario analysis, AIMCo utilized MSCI’s quantitative Climate Value at Risk (VaR) tool for our Public Equities and Corporate Debt portfolios, aiming to quantify what was identified in our qualitative analysis in 2019. Climate VaR is designed to provide a forward-looking and returns-based assessment of climate-related risks and opportunities from both a bottom-up (company and sector level) and from a portfolio and fund-wide level. It is a quantitative model that integrates transition risk and physical risk scenarios out to the year 2100, using

globally recognized climate models from Japan, U.S. and Europe. The Climate VaR tool offers various temperature warming scenarios for analysis, including 1.5°C, 2°C, 2°C late action, and 3°C. Baseline assumptions regarding economic growth, population, technology, policy and carbon pricing are premised on the IPCC’s five Shared Socioeconomic Pathways (IPCC projections of socio-economic global changes up to the year 2100).

For physical risk, the model uses the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP) 8.5 to assess the impact of five chronic risks (extreme heat, extreme cold, extreme precipitation, wind, snowfall) and two acute risks (coastal flooding and tropical cyclones). Risks are assessed against current holdings and extrapolated out to the year 2100, factoring in impacts from business interruptions and asset damages.

## For transition risk, the MSCI Climate VaR model focuses mainly on policy risk and technological opportunities.

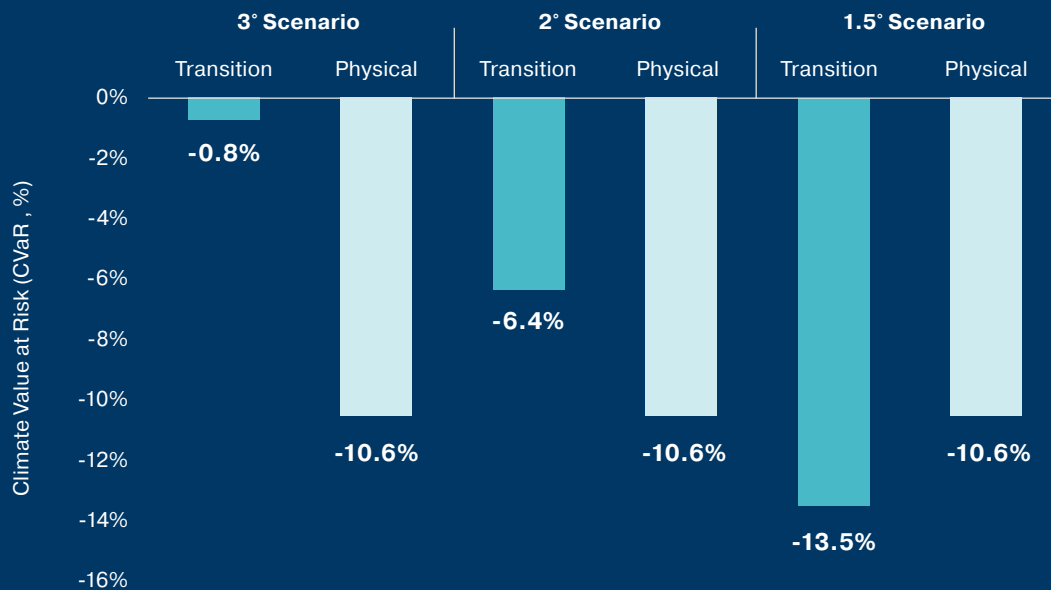
With respect to policy risk, MSCI estimates individual issuers' costs of meeting emissions reduction targets based on countries' stated targets and sector targets, for company's owned and operated facilities. With respect to technological opportunities, MSCI evaluates issuers' patent data and green revenue market share based on MSCI's Cleantech data and its scoring of Low Carbon technologies across all GICS sectors.

Below are some of the key assumptions underpinning this model:

AIM/CGE Assumptions	1.5 °C Scenario	2.0 °C Scenario	3.0 °C Scenario
Real GDP growth 2010 - 2100 (CAGR)	2.3%	2.3%	2.3%
World Population in 2100 (billions)	8.99	8.99	8.99
<b>Electricity Generation by Fuel Source in 2050</b>			
% Renewables	85%	73%	50%
% Nuclear	9%	8%	15%
% Gas	5%	12%	15%
% Coal	1%	7%	20%
<b>GHG Emissions and Carbon</b>			
Zero GHG Emissions achieved by	2055	N/A	N/A
Carbon Sequestration peak (Mt/yr)	19,234	22,515	12,311
Carbon Price USD/tons of CO <sub>2</sub> e (2033)	700	500	100

AIMCo's TCFD working group elected to use the Asia-Pacific Integrated Model (known as AIM/CGE) under 1.5°C, 2°C and 3°C temperature options to inform our assessment of the risks and opportunities in our current portfolios. The model assumes that we would maintain the same holdings and asset mix through the end of this century, and while that is unlikely, the analysis provides insights in determining where vulnerabilities may exist and what alternative asset mix and other attributes would likely make the portfolio more resilient to a changing climate. The following table/graph offers a summary of some of the key results of our analysis, which represent MSCI's assessment of the percentage of our public market portfolios value at risk under various warming scenarios, in the year 2080, then present valued to today. As expected, the risk is significantly higher in a 1.5°C scenario, where more stringent policy and regulations will result in higher transition risk, versus the 3°C scenario, which is essentially business as usual.

**AIMCO PUBLIC EQUITIES AND CORPORATE DEBT CLIMATE VALUE AT RISK BY SCENARIO & TYPE**



One of the most interesting insights revealed by the MSCI Climate VaR model is the wide range, or spread, of climate risk of companies within a given sector, across each of our portfolios. The sector analysis shows that the Climate VaR for companies in our holdings ranges from -100%, meaning the company is completely exposed to climate risk, to +100%, meaning the company is well placed to benefit from the transition. As expected, some issuers within a given sector are far better placed than others, even in traditionally carbon-intensive sectors such as Energy, Utilities and Materials where higher rates of climate-risk exposure exist overall. For AIMCo, this presents an opportunity to conduct further research to identify best and lagging practices. AIMCo should aim to invest in companies that appear climate resilient within a given sector, and in innovative products and services which effectively reduce our carbon exposure. The Climate VaR analysis can inform our engagements, risk/opportunity analysis and a strategy of climate resilience.

It will be important to understand which warming trajectory the world appears to be on track for by regularly tracking key indicators or signposts such as projections for oil and gas demand, electric vehicle sales, carbon pricing outlooks, and technological advancements, amongst others. It will be important to determine which companies are future focused and proactively developing solutions to both reduce emissions and increase carbon efficiency.

By focusing on the following levers, as introduced in last year's analysis, we can better identify investment opportunities aligned with our climate strategy.

## Levers for Decarbonization

### Reducing Energy Demand

- Adopt energy efficiency targets and standards
- Employ smart technology
- Pursue low-carbon fuel options

### Shifting Energy Mix

- Increase renewable investments
- Decarbonize the electricity sector
- Electrify the transportation sector

### Managing Emissions

- Support carbon capture, utilization and storage (CCUS)
- Promote reforestation
- Reduce fugitive methane emissions

### Market and Regulatory Factors

- Expand carbon pricing
- Develop widespread emissions trading programs
- Issue green, sustainability and transition bonds



## RISK MANAGEMENT

**TCFD Recommendation: Disclose how the organization identifies, assesses and manages climate-related risks and opportunities.**

### Identifying Climate-related Risks & Opportunities

Investment teams across AIMCo strive to identify material climate risks at various stages of the investment process and across the fund to ensure an integrated, co-ordinated approach. We have identified several short, medium and long-term risks, including risks related to investment in high-emitting sectors which could lead to counterparty and/or higher stranded asset risk. AIMCo is also exposed to regulatory risk from rapidly changing policy and operational risk as business could be impacted due to changing weather patterns.

In addition, AIMCo has tools and processes to help quantify climate-related risks and opportunities, including carbon footprinting, MSCI Climate VaR and FTSE Green Revenues.

Climate Metric	Key Question	Metric	Current Scope
Carbon footprint	What is the portfolio's contribution to global emissions from our investments?	Financed emissions & weighted average carbon intensities	All asset classes
Climate VaR	How much of the portfolio's risk can be attributed to future climate-change costs?	Portfolio climate value at risk (Climate VaR)	Public Equities and Corporate Debt
FTSE Russell Green Revenues	Which investees are effectively transitioning to the low-carbon economy?	Exposure to companies that generate revenue from green products and services	Public Equities and Corporate Debt

## Managing Climate-related Risks & Opportunities

Risk management is a key priority at AIMCo, with respect to our investments, our clients and our daily operations.

Climate-related risks are managed in a number of ways, including through investments in low-carbon assets, by researching best practices in climate mitigation, via climate-related pre-investment and post-investment analysis, through stewardship activities, including active management, engagements and proxy voting, and by delivering climate-related reporting to our clients.

We are pleased to share that our Infrastructure portfolio has invested \$3.2 billion, or approximately 30% of the asset class, in low-carbon assets, while our Renewable Resources portfolio is fully comprised of investments in timberland and agriculture, actively contributing to the removal of carbon emissions from the atmosphere. Two assets in our Infrastructure portfolio, representing a considerable portion of its assets under management, have in fact made net-zero commitments (Puget Sound Energy and London City Airport). At SAESA, an electricity utility company in Chile, we advised on service providers to conduct company-wide carbon footprinting. We further supported the efforts of Porterbrook, one of the U.K.'s leading providers of rail leasing services, in the development of HydroFLEX, a hydrogen-powered train. Launching a green bond with Eolia, a renewable energy provider in Spain, is another example of how we capitalize on the opportunities in this space in an effort to provide our clients with superior risk-adjusted returns. In our Real Estate portfolio, over 90% of our Canadian office assets have green building certifications.

In our publicly held portfolios, based on the FTSE Russell Green Revenues framework, 443 issuers representing \$9.5 billion of AUM have exposure to the green economy, meaning they generate some or all of their revenue from environmental products and services, spanning sectors including waste & pollution, food & agriculture, environmental resources and transport solutions.

## METRICS & TARGETS

### TCFD Recommendation: Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

AIMCo is focused on tracking and better understanding the emissions profiles of our portfolios. There is no single metric that comprehensively and sufficiently captures the complexity of climate-change risks and opportunities faced by our portfolios. We monitor different metrics to capture both historical and forward-looking perspectives. Our carbon footprint provides a snapshot of the total emissions generated by our investments during the prior calendar year, while Climate VaR estimates the portfolio's climate-related risks and opportunities out to the year 2100, under various warming scenarios.

Climate change is not linear, meaning the past is not a good indicator of the future, nor do we know what temperature scenario is most likely to materialize. However, by employing both historical metrics and future-focused modelling we are better placed to understand and inform development of a climate-resilient portfolio for the long term. AIMCo is committed to transparency regarding our processes to assess, monitor and manage climate-related risks and opportunities in alignment with recognized frameworks.

### Carbon Footprint

AIMCo began measuring the carbon footprint of our Public Equities portfolio in 2016 using the Greenhouse Gas Protocol method. The field of carbon accounting and attribution of emissions to investors based on financial instrument and investment type is still developing, and our membership in PCAF assists us in identifying, contributing to and adopting best practices in carbon accounting.

AIMCo currently follows two methodological approaches to calculate a carbon footprint (see equations in notes) with each attributing emissions to the investor differently, while offering valuable insights. These are:

- The Financed Emissions method which attributes emissions to the investor proportionate to the investor's equity and debt holdings
- The Weighted Average Carbon Intensity (WACI) method which attributes emissions to the investor based on the portfolio's relative exposure to carbon intensive industries

In our first TCFD report in 2019, we disclosed the carbon footprint of our long only Public Equities' holdings, using the TCFD-recommended WACI method and the owned emissions methods for 2015-2018 inclusive. In our 2020 report, we were able to expand our carbon footprint to include the corporate debt portion of fixed income, infrastructure and real estate, under the WACI and financed emissions methodologies.

Our objective in 2021 was to expand the scope of our carbon footprint to include the Private Equity asset class and to align ourselves with PCAF's financed emissions methodology including its interpretation of which financial instruments are in scope and which are not. PCAF has developed standard proxy methodology for non-disclosed emissions, which we can apply to direct equity investments (both public and private). For externally managed funds, where there is no standardized estimation methodology, AIMCo developed an in-house formula based on a net asset value approach.

Our carbon footprint calculations now cover a portion of all five of AIMCo's asset classes. To allow for comparison to 2019 (see note 12), we have recalculated the 2019 carbon footprint for the same scope used for 2020, to provide a common denominator and ensure a like-for-like comparison to help us understand the carbon emissions trajectory of our portfolios.

Our calculations demonstrated that AIMCo's portfolio emissions decreased in 2020 relative to 2019, whether from an absolute-emissions, weighted average carbon intensity (WACI) or a financed emissions-intensity perspective. In 2020, AIMCo's absolute emissions using the financed method were 3.2 million tonnes CO<sub>2</sub>e, down significantly from 2019's 4.1 million tonnes CO<sub>2</sub>e. Under the financed emissions method, AIMCo's portfolio emissions intensity was 56 tonnes CO<sub>2</sub>e/\$million invested, down from 65 tonnes CO<sub>2</sub>e/\$million invested in 2019. Under the WACI method, the 2020 result was 280 CO<sub>2</sub>e/\$million of revenue, a drop of more than 20% from 2019.

The across-the-board drop in portfolio emissions cannot be attributed to any one single factor but is the result of many, potentially converging factors including: COVID-19 impacts, changing valuations of our assets, changes in sector exposures such as reduced oil and gas exposures, year-over-year fluctuations in corporate revenue and actual changes in company carbon emissions. We plan on conducting ongoing analysis to discern whether certain factors can be quantitatively attributed.

AIMCo Carbon Footprint	2019	2020
AIMCo Absolute Financed Emissions (tCO <sub>2</sub> e)	4,144,441	3,244,539
AIMCo Financed Emissions Intensity (tCO <sub>2</sub> e/\$million invested)	65	56
Weighted Average Carbon Intensity (tCO <sub>2</sub> e/\$million revenues)	360	280
Total AIMCo AUM (\$million)	\$118,762	\$118,639
AUM in Scope for Carbon Footprint (\$millions)	\$77,188	\$67,654
% of AUM Covered (in scope)	82%	85%

As investor fiduciaries, our ultimate objective is to deliver value to our clients, while focusing capital on the long term. We recognize we have a responsibility to continuously evaluate evolving climate risks and opportunities presented by climate change and to inform our ongoing assessment of investment risk and value.

**CONCLUDING THOUGHTS**

Moreover, institutional investors such as AIMCo have a vital role to play in advocating for progress on climate disclosure and energy transition strategies. Climate risk has been a key ESG focus area for AIMCo for seven years, while navigating the transition to a carbon-neutral economy is a strategic priority. We remain confident that climate considerations will continue to become more embedded in our investment strategy, informed by climate research and analysis and by the evolving carbon data and methodological landscape. As such, AIMCo will continue to measure and disclose our approach to climate governance, strategy and risk, our performance on climate-related metrics, our approach to climate change and targets, and will continue to seek related feedback from our clients and stakeholders.



## CARBON FOOTPRINT CALCULATION NOTES

Carbon accounting methodology and attribution of financed emissions to the investor is an evolving, iterative process that is not without challenges. These include persistent issues with lack of company disclosed carbon data, unverified carbon data, inherent difficulties in accurately proxying emissions for non-disclosed carbon data and the complexity of carbon attribution across various investment instruments. Despite these challenges, AIMCo is committed to calculating our CO<sub>2</sub> footprint on a best-efforts basis, to assess climate-related risks and opportunities using available data and generally accepted methodologies. Our carbon footprinting journey will continue to evolve as quality carbon data becomes more available, allowing us to expand our analysis across AUM and investment strategies.

- Dollars reported are CAD unless otherwise noted.
- Emissions are expressed in terms of carbon dioxide equivalents (CO<sub>2</sub>e).
- Results presented reflect snapshots of the portfolio investments' carbon intensity as of December 31 of each respective year.
- Calculations consider scope 1 and scope 2 emissions as defined by GHG Protocol. We do not take into account emissions that emanate from the use of companies' products, also known as scope 3 emissions, as data is limited, and invites double counting.
- For Public Equities and Fixed Income Corporate Bond holdings MSCI data was used. Many issuers publish their emissions annually in conjunction with annual financial reports, and for those that do not disclose their emissions, MSCI uses a proprietary method to estimate and assign emissions.
- The Public Equities carbon footprint calculation is inclusive of long only positions.
- The Fixed Income carbon footprint calculation is inclusive of short-term and long-term corporate debt.
- The Real Estate carbon footprint includes only standing domestic assets with self-reported emissions (Canadian assets that are fully built and/or >90% leased).
- The Infrastructure carbon footprint includes direct, co-investments and funds where holdings are valued over \$100 million. For companies that do not disclose emissions, we have proxied using PCAF guidance.
- The Private Equity carbon footprint excludes legacy relationship and venture capital investments. For companies that do not disclose emissions, we have proxied using PCAF guidance.
- Equations for the three currently accepted carbon footprint methodologies are listed below. GHG Protocol is no longer being reported as it only considers equity holdings.
- The 2019 carbon footprint calculations published in AIMCo's 2020 TCFD report included a different scope than our current calculations. For public equities, last year we included derivatives and shorts, and for private asset classes we included only assets that self reported. This year, due to alignment with PCAF and the development of internal estimation methodology, our scope has changed significantly in every asset class. That is why we felt compelled to recalculate our 2019 carbon footprint, to transparently disclose our carbon trajectory.

Method	Financed Emissions (PCAF)	Financed Emissions Intensity	WACI
Carbon Intensity	$\sum_c \frac{\text{Holding Market Value}_c}{\text{Enterprise Value Including Cash}_c} \times \text{Company Scope 1 \& 2 Emissions}_c$	$\sum_i^n \frac{\text{Financed Emissions}_i}{\text{Holding Market Value}_i} \cdot \text{M}\$1 \cdot w_i$	$\sum_i^n \frac{\text{Holding Market Value}_i}{\text{Portfolio Value}} \cdot \frac{\text{Scope 1 \& 2 tCO}_2\text{e}_i}{\text{Issuer's \$M Revenue}_i}$



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