

UNJSPF Office of Investment Management TCFD Report

2021



UNJSPF
United Nations Joint
Staff Pension Fund

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REPORT OVERVIEW

The following report's objective is to meet the recommendations made by the Task Force on Climate-Related Financial Disclosures (TCFD) for disclosing the United Nations Joint Staff Pension Fund's Office of Investment Management's internal processes, commitments, and actions for evaluating and acting on climate change. This is the first such report aimed at meeting the requirements laid out by TCFD and completed by the Office of Investment Management (OIM). It also details OIM's commitments to the Net-Zero Asset Owner Alliance (NZAOA), Principals for Responsible Investing (PRI), and net-zero objectives. The report is broken into two primary parts and a set of appendices. The first part is an overview on where OIM stands relative to the recommendations made by TCFD across TCFD's four pillars¹.

The second part explores how OIM has worked with third-party data providers, such as Entelligent and MSCI, to use scenario analysis in disclosure of climate-related risks and opportunities². The appendices provide further information on the methodologies used and details on the internal workings of OIM.

¹ <https://www.unpri.org/download?ac=4652>

² <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-TCFD-Technical-Supplement-062917.pdf>

Summary of OIM's execution of the 4 pillars of the TCFD's recommendations



Governance

Climate-related decision making of OIM follows a well-structured channel of oversight and culminates with the Secretary-General.



Strategy

OIM recognizes both physical and transitional risks to the value of the assets of UNJSPF, and has strategies to reduce these risks by reaching net-zero by 2050 and aligning with the IPCC 1.5°C scenario.



Risk management

OIM uses in-house methodologies and third parties to identify these risks and uses divestment, engagement, and investment in transitioning companies to manage climate risks and take advantage of climate opportunities.



Metrics and targets

OIM uses scopes 1, 2 and 3 emissions metrics to assess risks and has a target to reduce financed emissions by 40% by 2025 from 2019 levels.

INTRODUCTION

More dramatic action needs to be taken if there is to be realistic hope of achieving a net-zero future, but climate change has increasingly been getting the world's attention. Much more work remains to forestall devastating climate change, but countries, companies, investment plans and other entities are committing to positive steps to help protect the planet. For its part, the United Nations Joint Staff Pension Fund's (UNJSPF) Office of Investment Management (OIM) can report that divestments from fossil fuels have reduced the carbon footprint of its portfolio to 32% below its 2019 level for equities and corporate bonds. OIM has reached this target three years ahead of the schedule set by the Net-Zero Asset Owner Alliance. Since the sale of these securities does not, in itself, reduce carbon emissions to the environment, OIM plans to bolster engagement efforts with the carbon-intensive companies it still holds investments in, encouraging them to plan for a rapid transition to a net-zero economy.

Over the past three years, OIM has ramped up the integration of climate considerations into its investment activities:

- In 2019, OIM announced the divestment of publicly traded coal companies by year-end 2020.
- Last year, OIM released a new climate ambition to become net-zero in its investment portfolio emissions by 2050 or sooner.
- In 2020, OIM engaged with 546 companies on environmental, social, governance, strategy, risk and communication issues and objectives. Environmental issues were included in 25% of engagements (with 79% of these environmental issues being focused on climate change).
- In October 2021, OIM announced the reduction of the absolute greenhouse gas (GHG) footprint of its equity and corporate bond portfolios by 32% compared against 2019 levels. OIM decided to divest fossil fuels from its investment sub-portfolio (equities and corporate bonds) and not to make new investments in its public and private markets portfolios. More than \$2bn of \$87bn of assets under management (AUM) of OIM has been divested completely from fossil fuel exposure. The divestment decision targeted all businesses in the fossil fuel value chain — extraction and production, pipelines and transportation, equipment and services, refining, petrochemicals, trading, and distribution and retail.

Within its strategy, OIM partners with data and service providers to understand the impact of its investments on the climate, and to further align its portfolio with a net-zero future. The mission of OIM is to contribute to the global mission of the United Nations family of organizations by ensuring the long-term financial sustainability of UNJSPF. Highlighted by the UN-supported Principles for Responsible Investment and its 17 Sustainable Development Goals, OIM recognizes the urgent threat climate change poses to global economic, social and geopolitical stability. Acknowledging OIM's fiduciary duty to protect the long-term financial interest of its clients, UNJSPF is vulnerable to the financial impact resulting from both transition risk and physical risks caused by climate change. OIM has set a vision to continue to be a best-in-class, global, long-term investment institution, able to meet or exceed a 3.5% real rate of return (net of inflation as measured by the U.S. consumer price index and annualized over 15-plus years), while embarking on the critical expansion of a robust and sustainable investment strategy. OIM is committed to the recommendations of TCFD in incorporating scenario analysis and TCFD framework for reporting climate-related risks and opportunities.

OIM believes that portfolios with a strong commitment to sustainability have the potential to provide better risk-return

characteristics than those of conventional portfolios. Disregard for material ESG risks has negative consequences for our planet, for the health and well-being of people, and for ethical governance principles that would harm long-term financial returns for asset owners such as OIM. Implementing TCFD recommendations for incorporating scenario analysis and climate-related risk reporting will guide OIM in identifying and disclosing material climate-related risks and opportunities. TCFD's framework for disclosure has been widely acknowledged and adopted across the financial industry, giving OIM confidence in its consistency and efficacy.

OIM has partnered with Entelligent® to produce this 2021 TCFD Report. As the first to develop and be granted a U.S. patent for using scenario analysis in technology that assesses climate-related risks, Entelligent provides OIM a legally protected methodology in line with TCFD recommendations. Its transparent data platform examines the impact of new laws and regulations, new technology and energy transitions to calculate energy costs and profitability, and their granular impact on individual companies. For the purpose of the TCFD, Entelligent has conducted a scenario analysis of OIM's portfolio to get an overview of the exposure to climate risks. The individual company information will be deployed into OIM's internal process.

Part 1:

Overview of TCFD's 4 pillars

As stated above, this first section of the report outlines what actions OIM has taken across the four pillars of the TCFD framework. This is OIM's first such report and thus highlights recommendations made by TCFD where future work will need to take place as the framework continues to evolve and governmental regulations take force. This report is the next step in what has been a long journey for ensuring that OIM is aligned to best practices for meeting its financial and environmental objectives. The priority actions that OIM has taken in the near term to begin to align with TCFD framework include:

- **Governance:** Review its governance structures to make sure that there is effective board level oversight and internal management processes in place to effectively manage the climate-related risks and opportunities.
- **Strategy:** Analyze portfolio resilience to climate-related scenarios, including a 2°C or less outcome.
- **Risk management:** Assess the potential financial materiality of climate-related risks on the investment portfolio and evaluate the actions that need to be taken to mitigate these risks, as well as capture new opportunities.
- **Metrics and targets:** Measure GHG emissions where data are available or can be reasonably estimated, for each investment strategy.

In addition to implementing the processes for complying with the four-pillar framework recommended by TCFD, OIM has sought to divest, where appropriate, and engage with companies and external fund managers, to encourage greater transparency and alignment with TCFD's recommendations.

Lastly, OIM has sought to disclose all the above actions and outcomes in this report and analyze how OIM is best aligned to handle future climate risks as identified through climate scenario analysis completed by Entelligent.



Governance

Climate-related decision making of OIM follows a well-structured channel of oversight and culminates with the Secretary-General

Governance in place

Accomplished

- Organizational structure includes the Secretary-General, the UN General Assembly, the UNJSPF Pension Board, the Representative of the Secretary-General, the Sustainable Investing Team, the Investment Teams, Risk and Compliance, the Internal Investment Committee.
- While UNJSPF has a non-traditional board and management structure, due to the governance practices of the UN, Board and management are informed about climate-related issues.
- Climate-related responsibilities are assigned to various governmental bodies, including the Sustainable Investment Team, which is responsible for day-to-day activities of OIM, as well as the Internal Investment Committee, which meets monthly and oversees OIM's approach to sustainable investing.
- Various committees and UN governmental bodies incorporate climate-related issues into organizational goals and strategy, including the Secretary-General of the United Nations who approves the Sustainable Investing Strategy.

Board oversight

Accomplished

- The management of the investment of the assets of UNJSPF is the fiduciary responsibility of the Secretary-General (SG) of the United Nations, in consultation with an Investments Committee, and in light of the observations and suggestions, made from time to time, by the Pension Board on the investment policy. The Secretary-General maintains oversight and approves the Sustainable Investing Strategy.
- The UNJSPF Pension Board, which has responsibility for the administration of UNJSPF, may make recommendations and verifies completion (e.g., goals and targets) of climate-related recommendations.

Role of management

Accomplished

- Management is informed about climate-related issues from the Sustainable Investment Team, which maintains and distributes ESG and climate-related information to all internal teams. The Internal Investment Committee approves investment procedures and recommendations and oversees OIM's approach to sustainable investing with the Representative of the Secretary-General.
- Management monitors climate-related issues through the Internal Investment Committee, the Investment Teams, the Sustainable Investment Team, and the Risk and Compliance Team, which monitor activities related to investments, including sustainability and climate risk.

For further details, please refer to Appendix A.



Strategy

OIM recognizes both physical and transition risks to the value of UNJSPF and has a strategy to reduce these risks by reaching net-zero by 2050, and aligning with Paris commitments for keeping temperatures well below 2°C.

A 1.5-degree temperature target is a goal held by OIM as part of its membership in the NZAOA. Additionally, with the understanding of the vast climate risk differences between a 2°C and a 1.5°C temperature increase as presented by the IPCC Special Report on Global Warming of 1.5°C, OIM's efforts as detailed in this report are being directed to enable it to contribute to global net zero emissions by 2050.

Working toward a 1.5°C target underscores that OIM recognizes:

- Transition risks could increase in the upfront years and result potentially in mitigated physical risks.
- OIM's financed emissions need to reach net-zero by mid-century, although OIM plans on reaching that target sooner.

Identify risks and opportunities

Describe the climate-related risks and opportunities over the short, medium and long term:

Accomplished

- OIM sees climate risks as hazards to the stability and growth of UNJSPF from adverse consequences of climate change, as well as the resulting upheaval in the socioeconomic and physical environmental system the holdings in its portfolio operate in.
- To OIM climate opportunities are the advantages resulting from taking action that advances climate adaptation and mitigation efforts with the potential to boost the stability and growth of UNJSPF.
- OIM's climate risk and opportunities strategies are geared toward transition risks in global equities, which account for almost 60% of investments.

- OIM's Sustainable Investment Team uses Entelligent forward-looking metrics and MSCI emission data to climate proof its global equity fund against policy, technology and market shocks over the near term (two years), medium term (2030) and long term (2050).
- Business impacts are evaluated by asset, geography and portfolio exposure.

Planned

- OIM recognizes the role the impact of physical risks can have on the stability and growth of UNJSPF; for this reason, OIM is planning to integrate physical risk analysis over the course of the next two years.
- OIM is also planning to extend the scenario analysis over other major asset classes by 2025.

Impact on investment strategies

Describe the impact of climate-related risks and opportunities on investment strategies:

Accomplished

- OIM's Sustainable Investment Team uses third-party data to help investment teams identify which portions of a portfolio are likely to benefit from a particular scenario or face a loss in value; and used this analysis to inform the organization's strategy.
- Divestment and engagement have been at the core of OIM's climate-related investment decisions.
- In 2020, OIM engaged with more than 500 portfolio companies and will continue its engagement initiatives.
- OIM has divested from public companies that derive upward of 10% of their revenues from fossil fuels (or 1% from thermal coal) and are not shifting their business models toward a low-carbon, Paris-aligned trajectory.

Planned

- Extend climate scenario cost and revenue projections into benchmark analysis for fixed income.
- Monitor priority sectors emissions reduction targets and focus engagement on them.

Resilience of investment strategy

Describe the resilience of the investment strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario:

Accomplished

- OIM recognizes that fund strategies that do not have specific climate risk strategies are inadequate to secure the stability and growth of UNJSPF moving forward.
- OIM decided to use a scenario-based resilience analysis, by looking at two different types of scenarios:
 - **Business as usual:**
This scenario looks at the trajectory of current policy, technology, and energy mix and usage without considering nationally determined contribution (NDC), that will lead to a hothouse world of 4°C+.
 - **Paris-aligned:**
This scenario represents a series of technological, political, and economic transformation required for the world to stay well below 2°C by the end of this century.

For further details, please refer to Appendix A.



Risk management

OIM's climate risk management process involves the identification and assessment, mitigation strategies, and incorporation into its overall risk management process to ensure a convergence of all risk-related issues as regards them. OIM uses in-house methodologies and third parties to use divestment, engagement, and scenario analysis to identify the risks of climate change and act.

Assess risks

Describe the processes for identifying and assessing climate-related risks:

Accomplished

- OIM uses third-party data and analytics for scenario analysis and carbon metrics insights on a quarterly and annual basis.
- OIM assesses the potential size and scope of risks and incorporates asset, geographic, portfolio, and fund-level macro technological, policy and market shocks.

Planned

- Expanding use of scenario analysis and carbon metrics insights into fixed income and private markets assessment.

Manage risks

Describe the processes for managing climate-related risks:

Accomplished

- The quarterly basis delivery allows OIM to constantly drive engagement activities with the highest emitters: companies or firms responsible for the majority of portfolio emissions.
- OIM utilizes third parties to engage with high-risk companies to achieve specific goals in terms of climate risk preparedness.
- The Investment Teams make micro-adjustment on their investment strategies to ensure real time alignment with international climate target such as the Paris Agreement.

Integrate risks

Describe how climate-related risks are integrated into risk management processes:

Accomplished

- The Secretary-General and the UNJSPF Pension Board are informed on metrics through reports, including the TCFD Report.

Planned

- OIM is currently building a process to systematically integrate T-Risk and scenario analysis as a fundamental additional factor into investment decision-making processes.

For further details, please refer to Appendix A.



Metrics and targets

OIM uses scope 1 and 2 emissions metrics and targets recommended by TCFD to meet the objective of reduced financed emissions by 29% in 2021 and by 40% by 2025 from 2019 levels. OIM also tracks scope 3 emissions for companies in the priority sectors as defined by UNEP FI Net-Zero Asset Owner Alliance.

Use of metrics

Disclose the metrics used to assess climate-related risks and opportunities in line with the investment strategy and risk management processes:

Accomplished

- OIM has evaluated the potential effects on the organization's strategic and financial position under each of the defined scenarios (BAU and Paris-aligned); additional details are presented later in this report.
- Evaluated OIM pre-divestment, post-divestment, and compared that against the relevant benchmark across total portfolio, geographies, and industries for climate transition risk (company cost projections + company revenue projections + company emissions).
- OIM has developed an internal fossil fuel and transitioning companies' assessment methodology. These metrics inform the fossil fuel exclusions from the public equity and corporate debt portfolios, and they also help OIM in its post-investment activities.
- OIM regularly monitors the metrics that inform its climate strategy, and replaces them if it finds more relevant metrics at any point.

Planned

- Evaluation of climate transition risk has been completed on OIM's equity holdings. In the future, OIM will extend this into additional asset classes.

Measurement of GHG

(Disclose scope 1, 2 and if appropriate scope 3 GHG and related risks):

Accomplished

- In order to monitor its GHG emissions, OIM uses scope 1, scope 2 and scope 3 carbon emissions data, measured in metric tons CO₂e across the metrics and targets suggested by TCFD.
- OIM sources data from the MSCI climate metrics dataset and uses an MSCI methodology. This approach produces no notable gaps in coverage nor issues with data quality. The key source of risk associated with these metrics comes from data revisions and potential for errors in calculation.

Set targets

Describe targets used to manage climate-related risks and opportunities and performance against target:

Accomplished

- Post divestment from fossil fuels, the carbon emissions of OIM's portfolio (public equities and corporate debt) have been reduced by 32% from their 2019 levels.
- In 2020, OIM finalized a commitment made in 2019 to divest from publicly traded companies in the coal energy sector.
- In accordance with the expectations associated with membership in the Net-Zero Asset Owner Alliance, OIM has committed to a series of emissions reduction targets before the year 2025.
- In 2021, OIM is pledged to reduce its greenhouse gas footprint by 29% in its equities and corporate bonds portfolios compared to 2019 levels.
- In accordance with the Alliance's recommendations, OIM is also monitoring levels within the Alliance's priority sectors on an industry basis, (energy, utilities, materials and transportation) based on the best-available science. The progress on these targets will be reported to the Alliance every five years.
- OIM will also focus its efforts on engaging companies to ensure that strategies and actions are aligned with the Paris Agreement targets.

Planned

- OIM has defined a timeline for having all asset classes tested against climate risks. Climate proofing of 100% of public equities and corporate bonds have taken place through its decarbonization approaches shown under the risk management pillar.
- Real estate will be tested by the end of 2022 at the latest, and other asset classes will undergo testing by 2025.
- Additionally, OIM engages with high-risk companies and external fund managers to achieve specific goals in terms of climate risk preparedness. This engagement takes place with the help of Hermes EOS, Climate Action 100+, and other networks like PRI and the Net-Zero Asset Owner Alliance.
- By 2025, OIM is pursuing GHG emissions reductions of 40% against 2019 levels. Short-term portfolio carbon emissions reduction targets are achieved chiefly through divestment efforts.
- 2025 targets are being fulfilled via a combination of portfolio allocation, and engagement with OIM's portfolio companies³.

³ UNJSPF, "The United Nations Joint Staff Pension Fund Steps Up its Climate Action with New Ambitious Targets." 17 June 2021

Part 2:

The use of scenario analysis in disclosure of climate-related risks and opportunities

TCFD recommends that all entities vulnerable to climate risk consider using scenario analysis to inform strategy. For asset owners and managers, TCFD recommends that scenario analysis be used in two main ways.

These are:

1. To include scenario analysis into strategic planning and enterprise risk management.
2. To use scenario analysis to improve disclosures on strategy and metrics and targets.

For investment portfolios specifically, TCFD recommendations are to⁴:

1. Use energy transition pathways to measure individual potential investments and drive engagement activities.
2. Evaluate the future performance of sectors, regions and asset classes across the different climate-related scenarios.
3. Identify where some portions of a portfolio are likely to benefit from a particular scenario, while others face a loss in value.

The purpose of scenario analysis is to consider and better understand how a portfolio might perform under different future states (i.e., its resiliency/robustness) with respect to risk, returns, and climate shocks. Climate-related scenarios allow an organization to explore and develop an understanding of how the risks and opportunities of climate change

might plausibly impact the business over time. Scenario analysis evaluates a range of hypothetical outcomes by considering a variety of alternative plausible future states (scenarios) under a given set of assumptions and constraints.

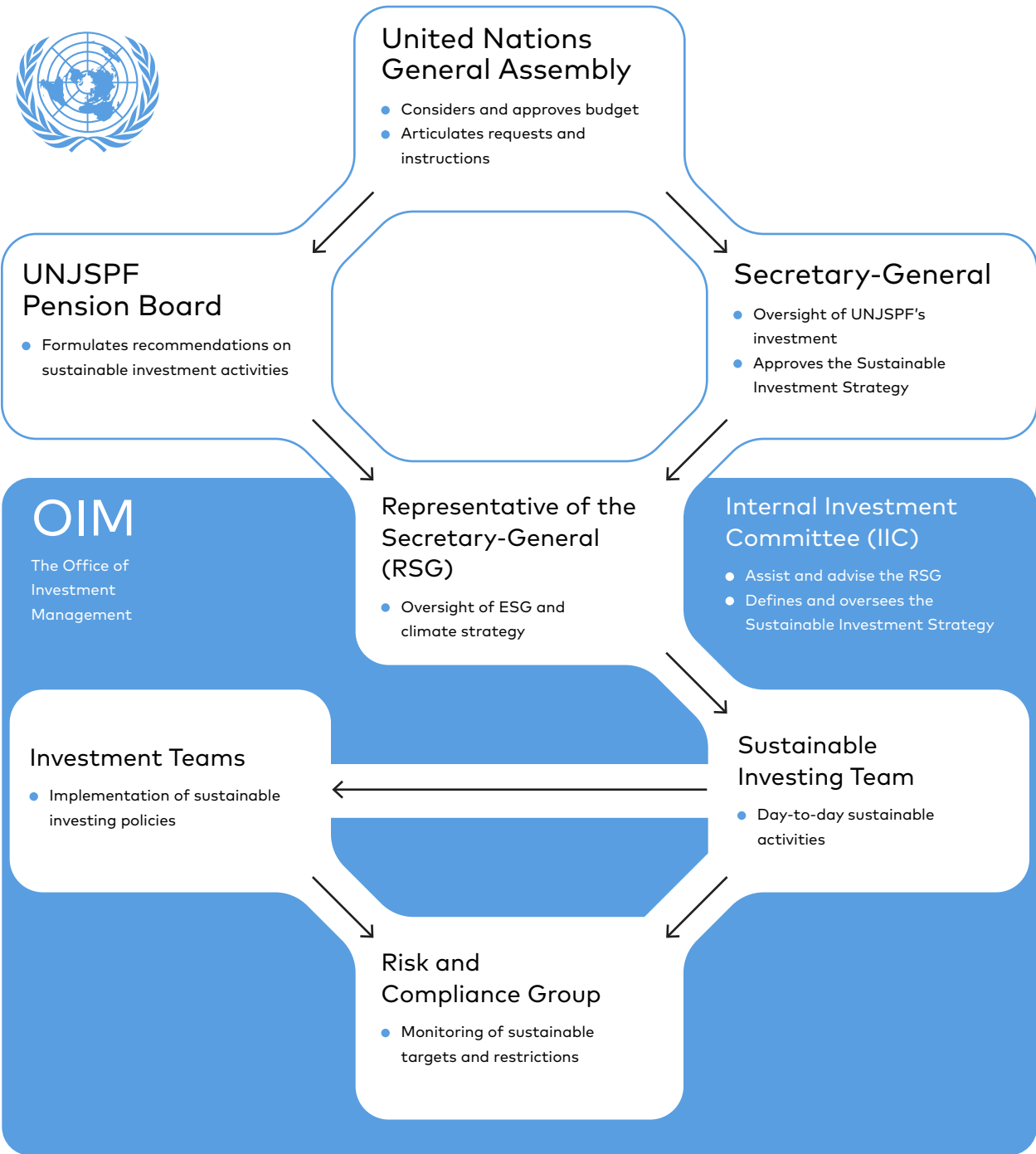
This section of OIM's TCFD report provides an exposition of the climate risk scenario analysis assumptions and methodologies adopted from the Alliance to identify the climate-related risks and opportunities relevant to OIM, as completed by Entelligent in partnership with OIM. It also expounds on the scenario methodologies used by Entelligent to generate the critical metrics represented in this report.

Climate scenario analysis is the hypothetical construct of probable climate states, the physical and socioeconomic futures they imply, and the possible consequences they will have on OIM's ability to deliver on its mandate to UNJSPF's clients. Its purpose is to reveal the most critical factors to feed into OIM's processes to bolster its strategies against climate risks and position OIM to take full advantage of the climate opportunities.

⁴ <https://www.tcfddhub.org/scenario-analysis/>

Step 1: Ensure governance is in place

Climate risk considerations through the UN OIM organizational structure



Step 2:

Assess materiality of climate-related risks

In compliance with TCFD, OIM has disclosed current and anticipated organizational exposures to climate-related risks and opportunities. OIM has identified material climate risks and opportunities and assigned appropriate committee stakeholders to address them.

The accelerating climate emergency due to anthropogenic increases in atmospheric greenhouse gas concentrations represents a significant and immediate risk for asset owners and managers. As outlined by the recent Federal Reserve's Financial Stability Report, the opacity of exposures and heterogeneous beliefs of market participants about exposures to climate risks can lead to mispricing of assets and the risk of downward price shocks. The financial system is also vulnerable to amplification effects of these damages if contracts are incomplete and do not capture all damage or if poorly understood financial exposures cause spillover effects or financial contagion. It is highly probable that

international regulations will aim to keep emissions pathways aligned with net-zero emissions goals and with the Paris Agreement. In response to these challenges, OIM aims to prepare its portfolios for a wide range of climate-related risks and opportunities. Through the partnership with Entelligent in writing this report, OIM has evaluated a business as usual scenario and Paris-aligned scenario against its portfolio. OIM analyzed materiality of climate-related risks by using Entelligent's T-Risk methodology to identify and assess asset, geographic, portfolio, and fund-level macro technological, policy, and market shocks.

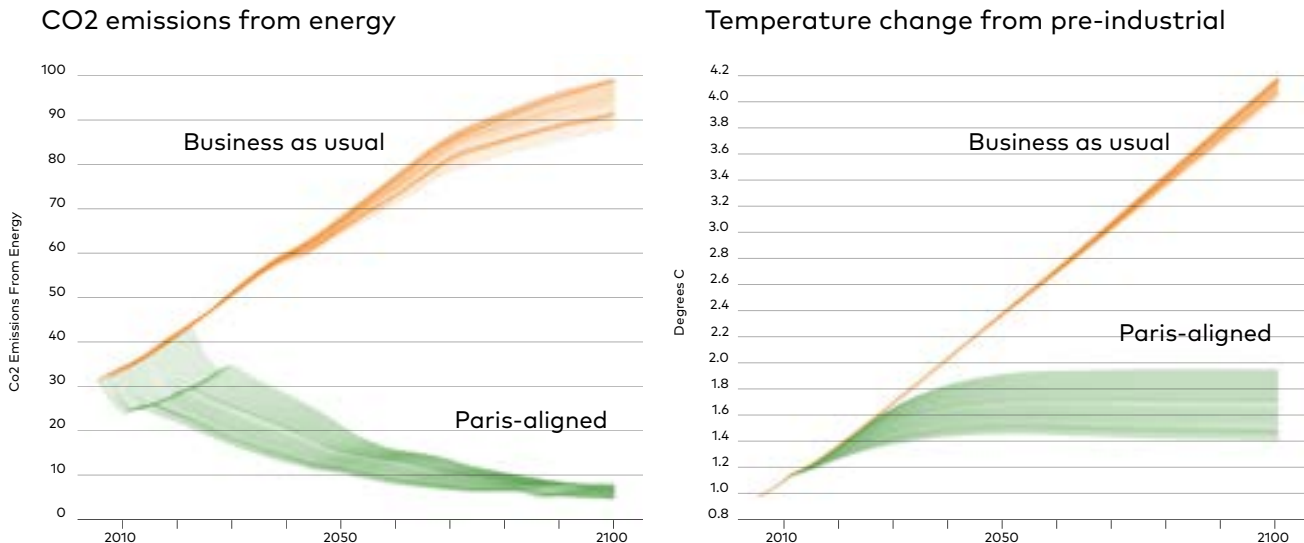
To learn more about the T-Risk methodology, please refer to appendix D.

Step 3:

Identify and define range of scenarios

OIM evaluated two scenarios to assess the resilience of its investment portfolios to a range of future possible climate-related impacts.

OIM has deployed Entelligent's technology, which uses a global systems dynamics-based Integrated Assessment Model (IAM) to evaluate two scenarios: Business as usual and Paris-aligned. Through this IAM, OIM has evaluated how shifts in energy efficiency, carbon pricing, changes in taxes, subsidies and economic growth can affect global carbon emissions and temperature targets.



CO2 emissions from energy (left) and temperature change (right) under each scenario. Simulations were calculated by Entelligent 40 times for each scenario to generate possible outcomes.

Scenario overview

The scenarios represent an interaction between socioeconomic factors and greenhouse gas concentration. Greenhouse gas emissions are driven by the product of four key variables: global population x GDP per capita x energy intensity of GDP x carbon intensity of energy (the Kaya equation).

In both Paris-aligned and business as usual scenarios, global population and GDP per capita are the same. The energy and carbon intensity are decreasing for both scenarios; but it is the pace at which the world will reduce these two factors, together with the development of effective policies that aim to reduce land use and increase the use of nature-based solutions such as afforestation, that will determine whether the world will meet Paris Agreement climate goals.

Business as usual scenario

The business as usual scenario considers the trajectory of current policy, technology, and energy mix and usage without considering nationally determined contribution (NDC) — the non-binding national plans where governments announce their own climate plans such as emissions reduction to reach carbon neutrality by 2050. This exclusion reflects governments' tardiness in translating these promises into actions. According to the latest UNFCCC report the world is on track to increase global emission by 16.3% by 2030 compared to 2010 levels⁶. The temperature outcome of this scenario is in the region of 4°C+ above pre-industrial levels by 2100. In this scenario, there is no significant shift in the policy approach toward sustainability. There is not a total absence of transformation or transition, but the rate of spread is slow and the coverage geographically unequal. There is also inadequate effort to stall or reverse environmental degradation. Development follows historical trends, while energy mix and intensity (efficiency) are barely improved because carbon-related pricing and taxation is nearly lacking.

Energy efficiency improvements in this scenario do result in a reduced energy intensity of GDP. This is associated with slight technological improvements in transportation, production and buildings. For instance, this scenario assumes an increase in efficiency in buildings and industry of 1.2% per year and 0.5% in transportation.

In this scenario, carbon dioxide removal (CDR) efforts whether through afforestation, change in land use, or technology such as soil carbon management, biochar, bioenergy with carbon capture and storage (BECCS), direct air capture (DAC), and enhanced weathering are woefully insignificant, and modelled as 0% in this scenario.

Paris-aligned scenario

Article 2 of the Paris Agreement⁷ mentions "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels."

To achieve the Paris Agreement goal, the energy intensity of GDP needs to decrease at a faster pace than what has been highlighted in the BAU scenario. For that, this scenario assumes an increase in efficiency in buildings, industry and transportation of 5% per year. As per the global effort to shift away from fossil fuels and move toward low-carbon energy sources, this scenario assumes the following policies:

- I In accordance with the United Nations Global Compact, an initial carbon tax of 100\$/tons of CO₂⁸, with an annual compounded increase of 2%.
- II 10\$/GJ as a subsidy for renewable energies.
- III Highly incentivizing the electrification of transport, buildings and industry.
- IV Highly reduce other greenhouse gases such as methane.
- V Early retirement for coal, biofuel as part of the energy mix.
- VI Highly reduced deforestation and highly incentivized afforestation as the major sources of carbon removal.

⁶ <https://news.un.org/en/story/2021/09/1100242>

⁷ <https://www.carbonbrief.org/analysis-the-final-paris-climate-deal>

⁸ <https://www.unglobalcompact.org/take-action/action/carbon>

Parameter



Parameter	Paris-aligned	Business as usual (BAU)
Temperature target	<2°C	>4°C
Annual global GDP growth rate per capita	2.7%	2.7%
Annual efficiency improvement of new buildings and industry	5%	1.2%
Annual efficiency improvement of transportation	5%	0.5%
Policy forcing buildings and industry to electrify	5%	0%
Policy forcing transport to electrify	1%	0%
Initial carbon tax	\$100/ton CO ₂	\$0/ton CO ₂
Annual change of carbon tax	2%	0%
Renewables subsidy	\$10/GJ	\$0/GJ
Reduction below BAU for land use, land-use change and forestry (LULUCF)	100%	0%
Afforestation share of carbon dioxide removal (CDR)	50%	0%
Maximum action on other greenhouse gases (CH ₄ , N ₂ O, f-gases)	100%	0%

A sample selection of key assumptions the different scenarios deploy, according to En-ROADS values generated from the AR5.

Step 4:

Evaluate business impacts

OIM has evaluated the potential effects on the organization's strategic and financial position under each of the defined scenarios (BAU and Paris-aligned) in compliance with its commitments to AOA and TCFD. OIM has evaluated UNJSPF pre-divestment, post-divestment, and compared that against the relevant benchmark across total portfolio, geographies, and industries for climate transition risk. This evaluation has been completed on its equity holdings. In the future, OIM will extend this into additional asset classes.

Company revenue and cost projections

OIM uses Entelligent's T-Risk cost and revenue forecasts for this report. T-Risk (please see detailed description of T-Risk on page 59) uses a Hierarchical Linear Model with Bayesian priors based on sector and regional cohort performance as the basis for stock-specific posterior risk estimates (see Appendix D for detailed methodology).

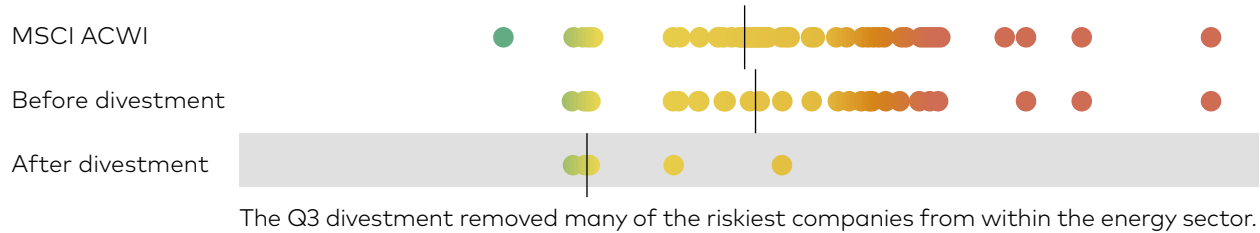
T-Risk reveals the climate transition alignment, or lack thereof, of company cost and revenue performance estimates under different climate scenarios. The T-Risk analysis was not used in the divestment decision, but to understand the impact of that decision on portfolio risk. The Q3 2021 divestment targeted some of the riskiest securities in the whole portfolio, which are clustered in the energy industry.

Each portfolio is a row, and each stock is represented by a circle.

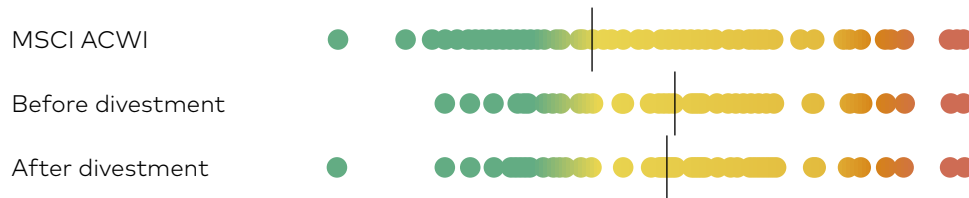
Cost risk by industry group and impact of 2021 divestment

Vertical black lines are median values.

Energy



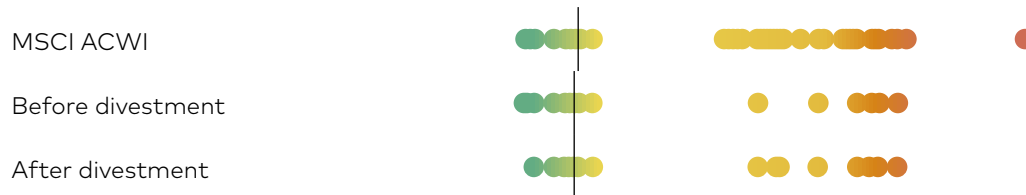
Materials



Transportation



Utilities



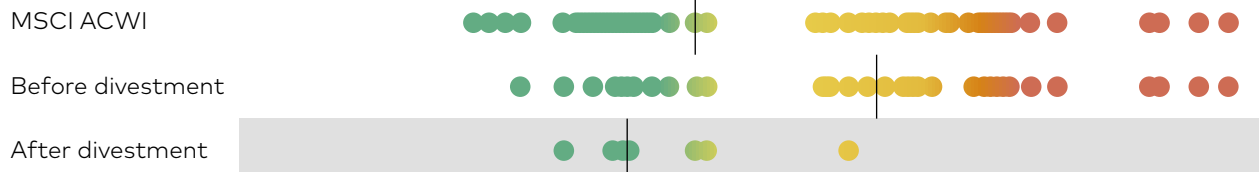
Less risk under Paris-aligned scenario ← → More risk under Paris-aligned scenario

Source: Entelligent

Revenue risk by industry group and impact of 2021 divestment

Vertical black lines are median values.

Energy



The Q3 divestment removed many of the riskiest companies from within the energy sector.

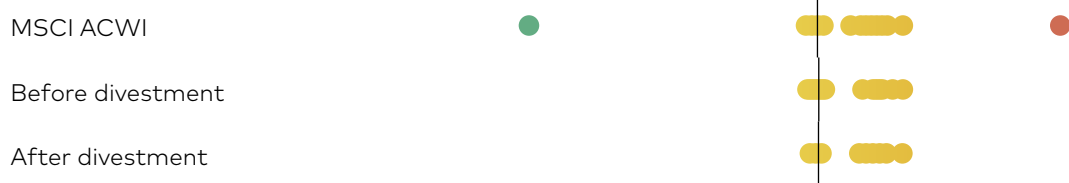
Materials



Transportation



Utilities



Less risk under Paris-aligned Scenario ← → More risk under Paris-aligned scenario

Source: Entelligent

Cost risk by geography and impact of 2021 divestment

Vertical black lines are median values.

Source: Entelligent

ASIA/PACIFIC EX JAPAN



EUROPE



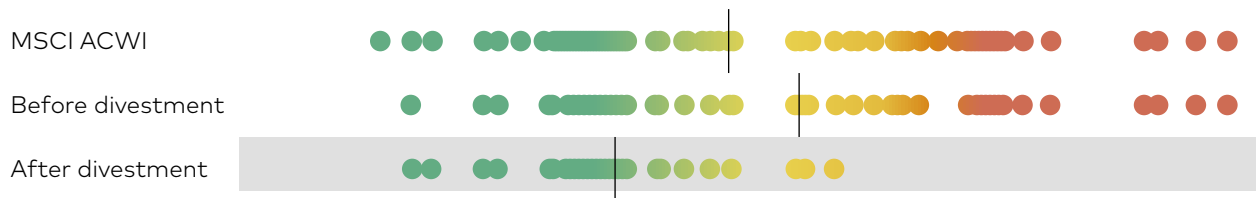
JAPAN



LATIN AMERICA



NORTH AMERICA



Less risk under Paris-aligned scenario ← → More risk under Paris-aligned scenario

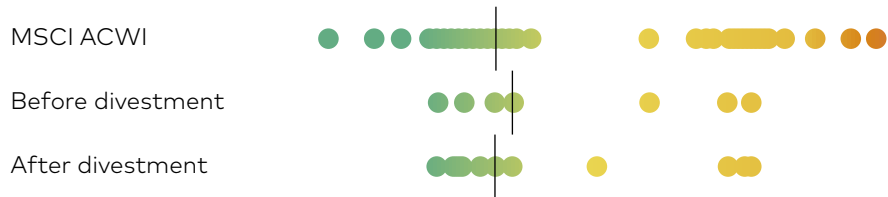
T-Risk of the MSCI All Country World Index, UNJSPF before divestment, and UNJSPF after divestment portfolios, grouped by region. Many of OIM's riskiest securities were in the North American energy industry and were removed by the Q3 divestment.

Revenue risk by geography and impact of 2021 divestment

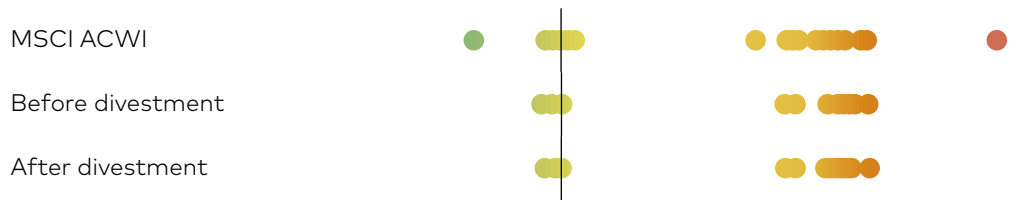
Vertical black lines are median values.

Source: Entelligent

ASIA/PACIFIC EX JAPAN



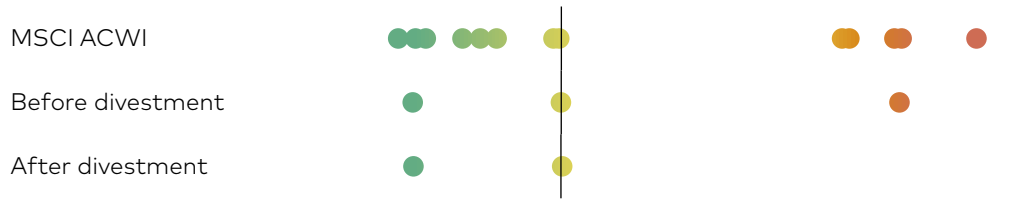
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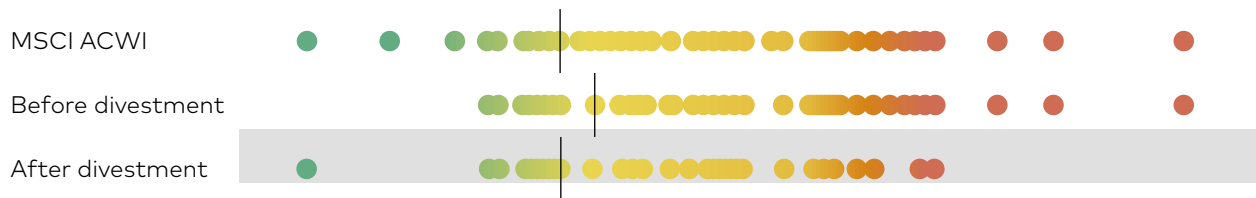
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Emissions

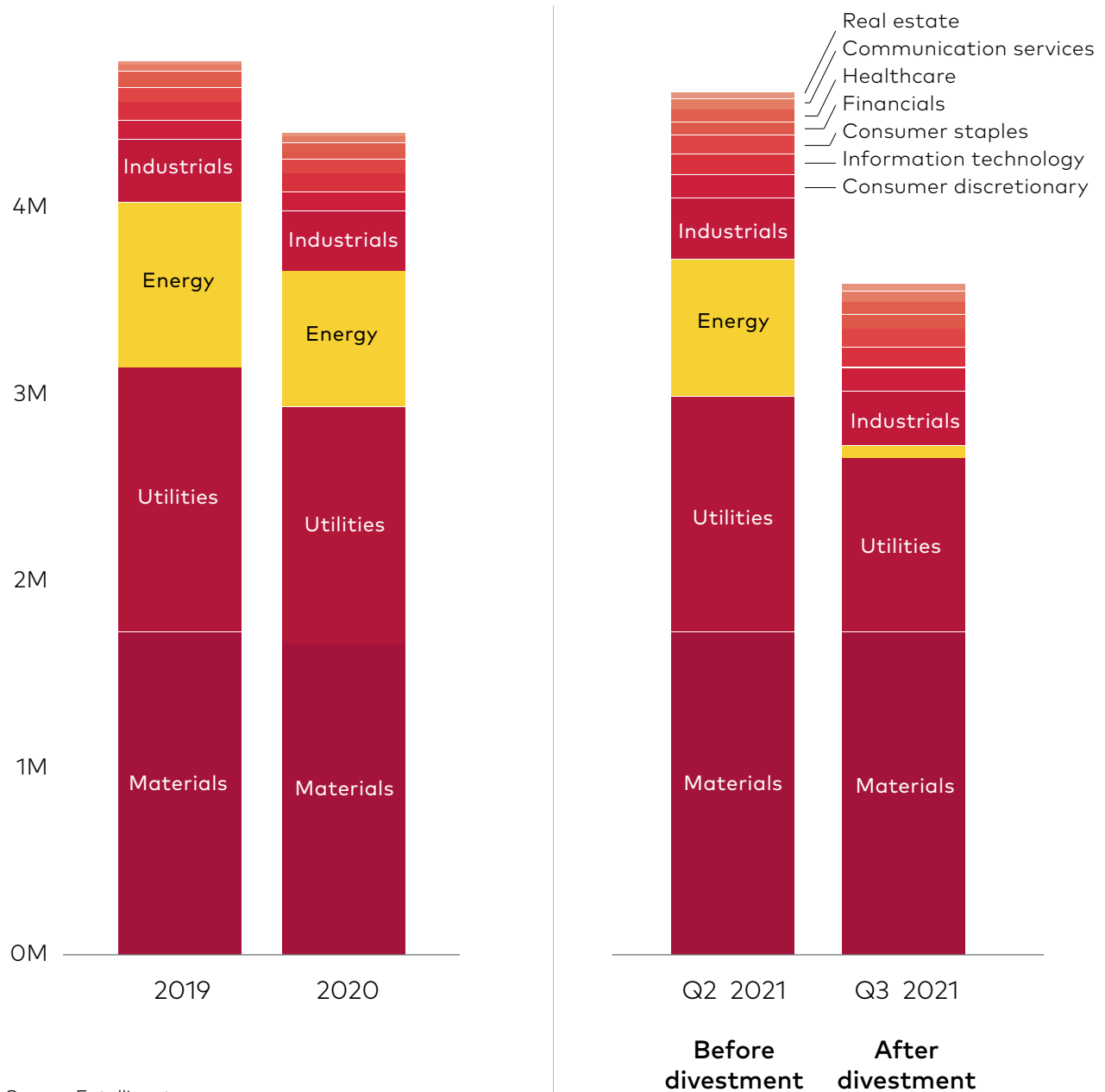
OIM has followed TCFD recommendation for disclosing the carbon targets and metrics as part of assessing and managing relevant climate-related risks and opportunities. The following analysis demonstrates UNJSPF pre-divestment, post-divestment, and compares that against the relevant benchmark across total portfolio, geographies, and industries using the carbon targets and metrics recommended by TCFD.

These metrics include:

- **Total carbon emissions:** the absolute greenhouse gas emissions associated with a portfolio, expressed in tons CO₂e. Scope 1 & 2 CO₂e emissions are allocated to investors based on an equity ownership approach. Under this approach, if an investor owns 5% of a company's total market capitalization, then the investor owns 5% of the company as well as 5% of the company's CO₂e emissions. While this metric is generally used for public equities, it can be used for other asset classes by allocating CO₂e emissions across the total capital structure of the investee (debt and equity).
- **Carbon footprint:** total carbon emissions for a portfolio normalized by the market value of the portfolio, expressed in tons CO₂e/\$M invested.
- **Exposure to carbon-related assets:** the amount or percentage of carbon-related assets in the portfolio, expressed in \$MM or percentage of the current portfolio value. This metric focuses on a portfolio's exposure to sectors and industries considered the most CO₂e emissions intensive.

UNJSPF annual carbon emission

Tonnes CO2e: Equities and corporate bond portfolios



Source: Entelligent

2019-2021 emissions

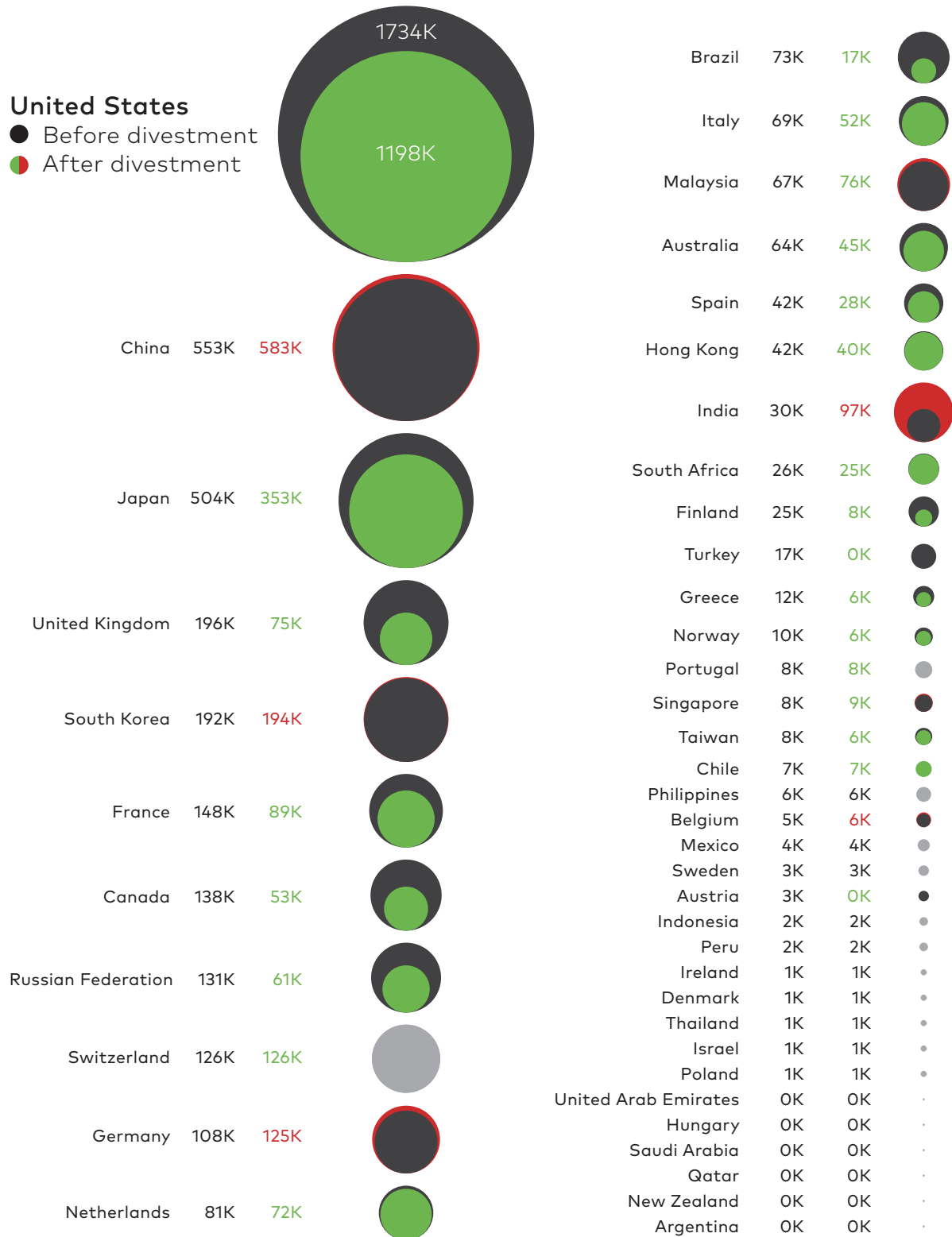
Post divestment, OIM's carbon emissions decreased 32% in 2021 compared to 2019. This is higher than the UNEP FI Net Zero AOA goal of a 16%-29% reduction by 2025.

Emissions by sector, before (left) and after (right) divestment

Carbon intensity in the materials sector is difficult to reduce with currently available technology. OIM chose to divest primarily from the energy and utilities sectors to meet its short-term carbon targets while keeping transitioning companies.

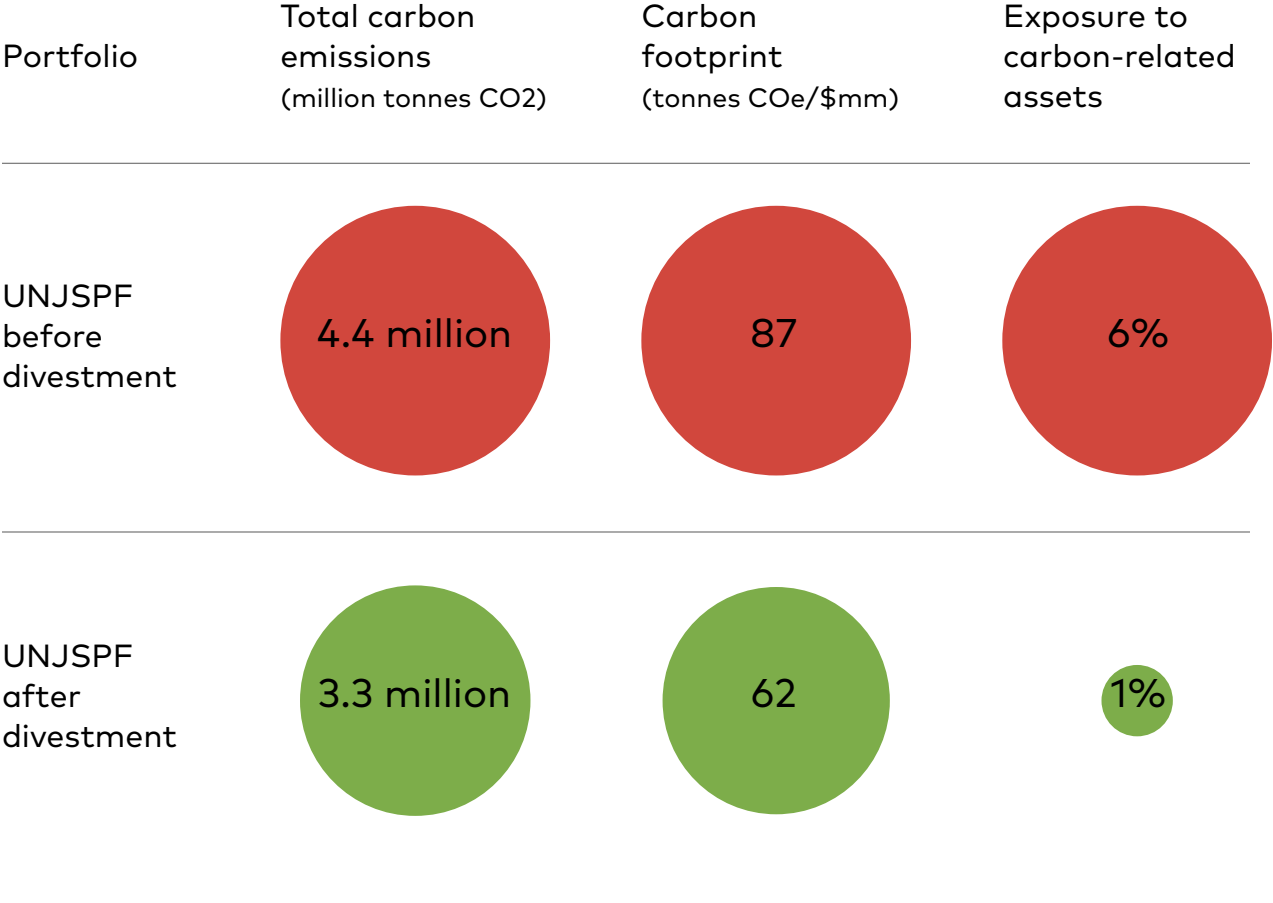
2021 divestment metrics

Tonnes CO2e: Equities and corporate bond portfolios



Source: Entelligent

H2 2021 annualized TCFD metrics



The divestment reduced all TCFD carbon metrics significantly.

Source: Entelligent

	Total Public Equity and Corporate Bonds Carbon Emissions (MM tCO2e) (with ETF)	Total Public Equity and Corporate Bonds Carbon Emissions (MM tCO2e) (without ETF)
31-Dec-19	5.16	4.77
31-Dec-21	3.23	2.90

Step 5: Identify potential responses

Engagement

Since decarbonization via divestment does not reduce real world carbon emissions, OIM is committed to seek real world impact. OIM uses internal dashboards to monitor its investments and make sure that its largest emitters are being engaged as part of its decarbonization strategy.

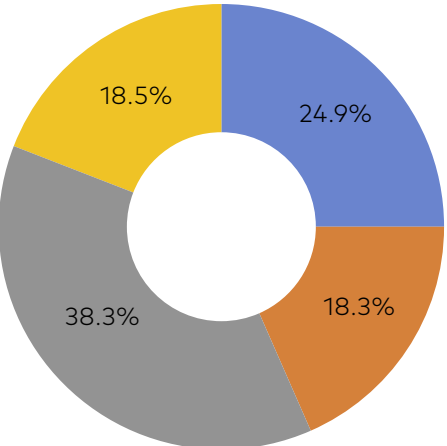
Engagement is a structured dialogue with a company, which, in this case, has the intent to support a transition to a low-carbon business model to achieve the Paris Agreement objectives. OIM believes that direct and collaborative engagement can drive change in the way companies conduct their business activities and lead to tangible improvements.

OIM works together with its engagement partner, Hermes EOS, to ensure that companies deliver long-term sustainable returns for their investors and align with more sustainable outcomes for the planet as a whole. In 2020, climate remained a focused engagement topic as it is critical that business models become aligned with the goals of the Paris Agreement.

A thematic that has attracted renewed attention in 2020 was climate change and fossil fuel financing. Banks remain a major source of funding for fossil fuel activities: investors have called on lenders to phase out the financing of those activities in particular through shareholder proposals.

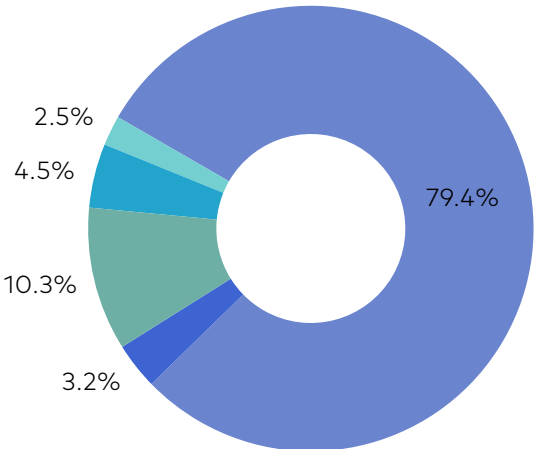
2020 direct engagements: an overview

OIM engaged with 546 companies



- Environmental
- Strategy, risk and communication
- Social and ethical
- Governance

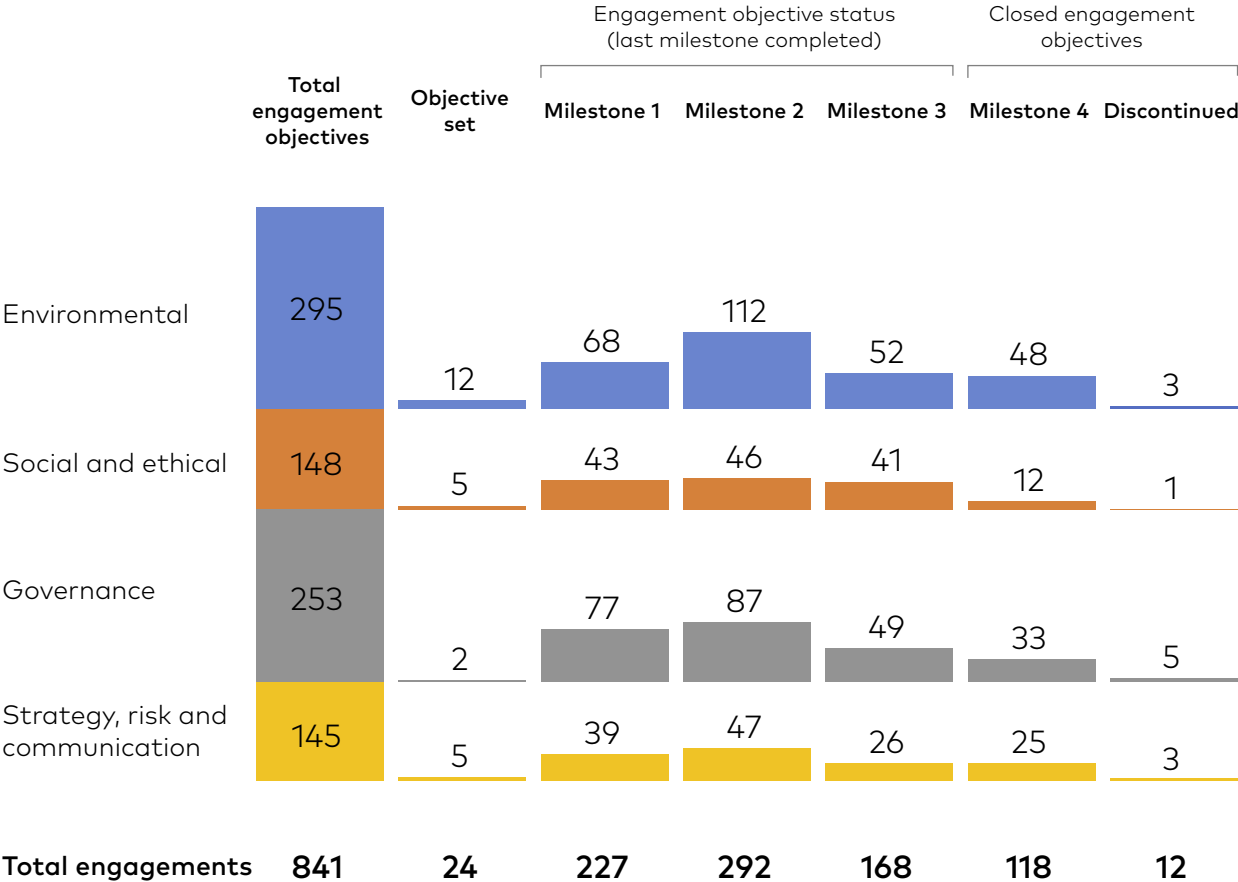
Climate change accounted for 79% of environmental engagements



- Climate change
- Pollution and waste management
- Water
- Forestry and land use
- Supply chain management

Source: Hermes EOS

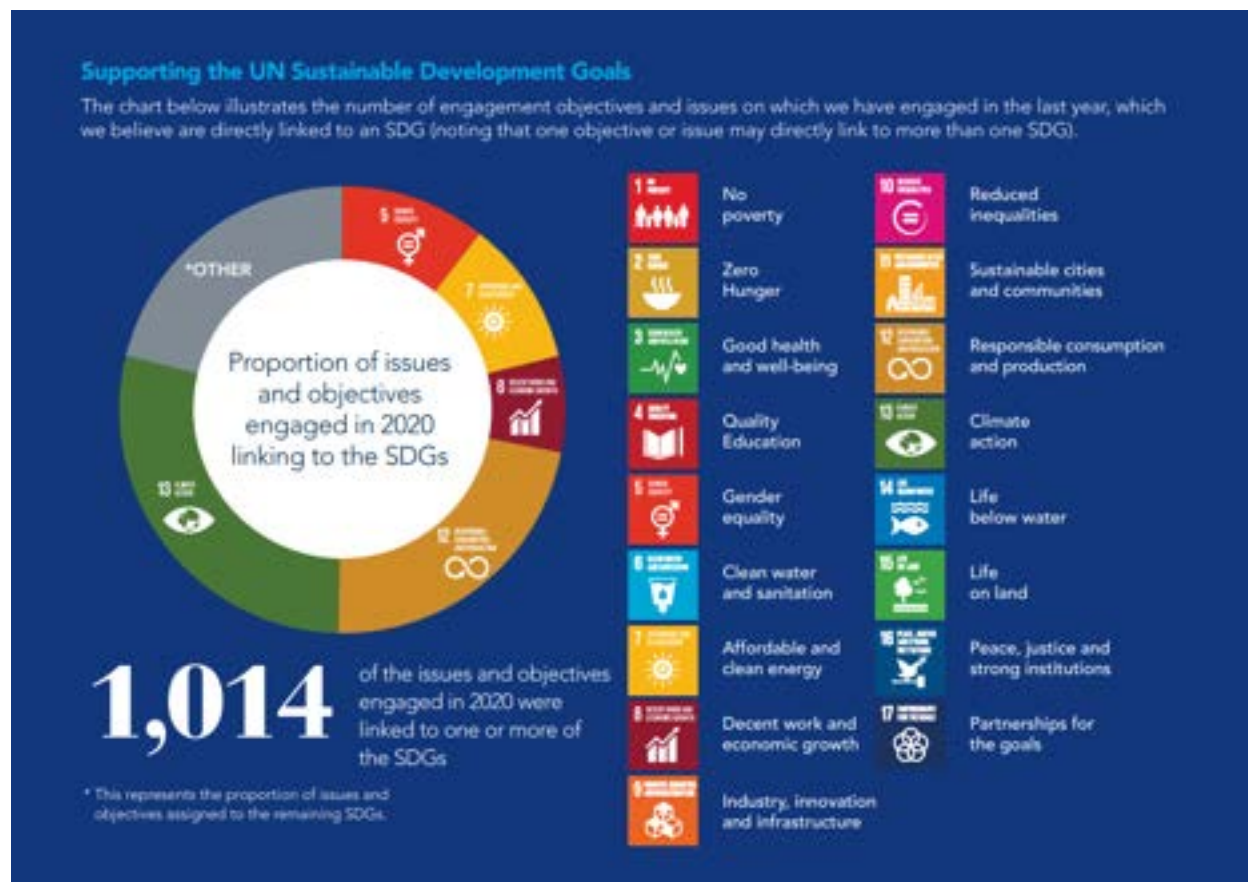
Milestone status of engagement



Source: Hermes EOS

This table displays the progress achieved in engagement based on objectives and milestones. There may be more than one engagement objective by company.

- Milestone 1:** Concern raised with the company at the appropriate level
- Milestone 2:** The company acknowledges the issue as a serious investor concern
- Milestone 3:** Development of a credible strategy/Stretching targets set to address the concern
- Milestone 4:** Implementation of a strategy or measures to address the concern



Source: Hermes EOS

In terms of collaborative engagements, one of the main channels OIM uses is the investor-led initiative "Climate Action 100+". The aim of this network is to make sure that the world's largest greenhouse gas emitters take actions on climate change.

In its 2020 Progress Report⁹, out of 160 companies engaged, 43% have set net-zero targets by 2050 (or ambition in some form) but only 10% have explicitly encompassed the companies' most material scope 3 emissions. Therefore, despite showing a positive trend in terms of action, there is still a notable gap with best practices.

The same can be observed regarding short- and mid-term reduction targets with encouraging but insufficient results so far.

Therefore, seeing the sound momentum in individual and collaborative engagement, OIM aims to continue its efforts to cause real world change in its investment portfolio to help achieve its decarbonization targets.

Voting is also an important part of OIM's stewardship policy: OIM votes following its sustainable voting policy.

⁹ <https://www.climateaction100.org/wp-content/uploads/2020/12/CA100-Progress-Report.pdf>

Identifying transitioning companies

OIM uses MSCI reports and an internally developed methodology to identify investable transitioning companies, which are those that have started shifting their business models toward a low-carbon economy and plan to continue in order to reach international agreements such as the Paris Accord. OIM considers transitioning companies in their regional and industrial contexts to capture the circumstances in which each one is evolving.

Data for this methodology comes from MSCI, Climate Action 100+ Company Benchmark, Transition Pathway Initiative, and Entelligent.

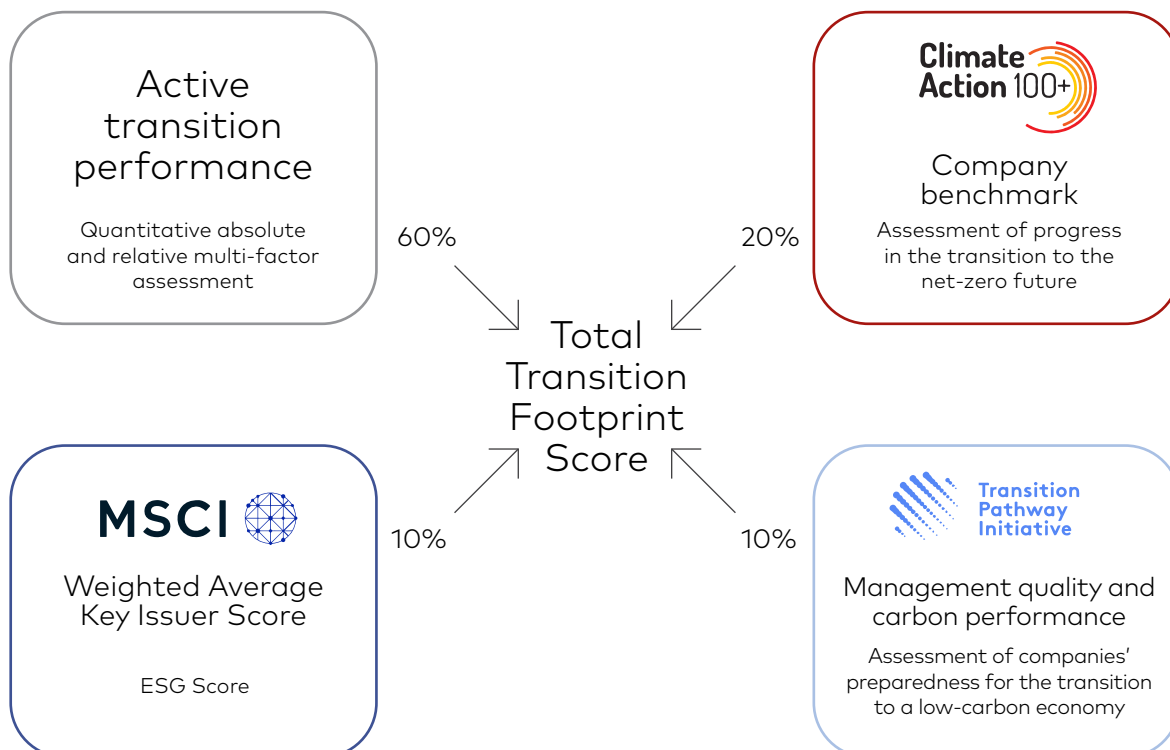
This methodology is both quantitative and qualitative. OIM uses a combination of data that includes:

- i) Actions already undertaken by companies (carbon intensity, fossil fuel exposure, environmental solutions exposure, Entelligent scores, and changes in these metrics over time).
- ii) Forward-looking actions of companies – CAPEX in renewables, climate goals as assessed by external agents – Climate Action 100+, Transition Pathway Initiative.
- iii) MSCI Average Key Issuer Score.

By combining this data with a regional and sectoral lens, we obtain a Total Transition Footprint Score.

OIM's internal methodology:

Combining actions and commitments



Total Transition Footprint Score

Active transition performance

Quantitative absolute and relative multi-factor assessment

Factors:

Carbon intensity, Fossil rev.,
Env. solutions rev.,
Low Carbon Transition Score, E-Score®

Calculation for a company:

- i) Current factors' levels vs. those of peers
- ii) Changes in factors vs. those of peers

Peers chosen as companies in the same sector and region.



Company benchmark

Assessment of progress in the transition to the net-zero future

- 1 ● Net-zero GHG emissions by 2050 (or sooner) ambition
 - 2 ● Long-term (2036-2050) GHG reduction target(s)
 - 3 ● Medium-term (2026-2035) GHG reduction target(s)
 - 4 ● Short-term (up to 2025) GHG reduction target(s)
 - 5 ● Decarbonisation strategy
 - 6 ● Capital allocation alignment
 - 7 ● Climate policy engagement
 - 8 ● Climate governance
 - 9 ● Just transition
 - 10 ● TCFD disclosure
- Different weighting for each factor and scoring

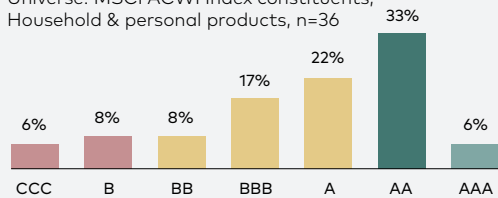
RESPONSE	SCORE
● No, does not meet any criteria	0
● Partial, meets some criteria	0.5
● Yes, meets all criteria	1
● Not currently assessed	0



Weighted Average Key Issuer Score ESG Score

ESG Rating distribution

Universe: MSCI ACWI Index constituents,
Household & personal products, n=36



Key score	Weight	Score (0-10)
Industry-Adjusted Score		7.3
Weighted-Average Key Issue Score		5.8
Environmental Pillar Score	34%	6.9
Social Pillar Score	33%	5.0
Governance Pillar Score	33%	5.5



Management quality and carbon performance

Assessment of companies' preparedness for the transition to a low-carbon economy

- Level 0 Unaware
- Level 1 Awareness
- Level 2 Building capacity
- Level 3 Integrating into operational decision making
- Level 4 Strategic assessment

TPI Score (out of 10):

- 0 if TPI Level = 0
- 2.5 if TPI Level = 1
- 5 if TPI Level = 2 or NA
- 7.5 if TPI Level = 3
- 10 if TPI Level = 4

OIM takes the top 10% in each region and sector (and adds "do no harm" conditions such as excluding companies with the worst controversies and ratings) and completes a fundamental analysis to see if those top 10% candidates are indeed investable transitioning companies. OIM also considers companies that devote a large part of their capex to renewables (more than 35%).

Step 6: Document and disclose

As part of the TCFD recommendations to document the processes to communicate to relevant parties the key inputs, assumptions, analytical methods, outputs, and potential management responses, OIM has prepared this report in partnership with Entelligent. OIM's goal is to satisfy stakeholders' desire for improved transparency and sustainability information whilst also identifying opportunities and gaps in meeting future net-zero targets. OIM and Entelligent work in conjunction to complete risk analyses as well as alignment and target setting. OIM regularly uses this wide set of tools provided by the partnership to develop an understanding of how the risks and opportunities of climate change might plausibly impact the business from a sector, region, and asset class perspective over time and in turn support decision-makers in their tasks. Entelligent's approach is patented, thus allowing for transparency and accountability in its operations with OIM management. OIM also works with Entelligent to generate custom approaches, allowing a clear view into key inputs, assumptions, analytical methods, outputs and potential management responses.

OIM is working on improving its disclosure to its various stakeholders: OIM will be revamping the sustainability and climate section of its website in 2022.

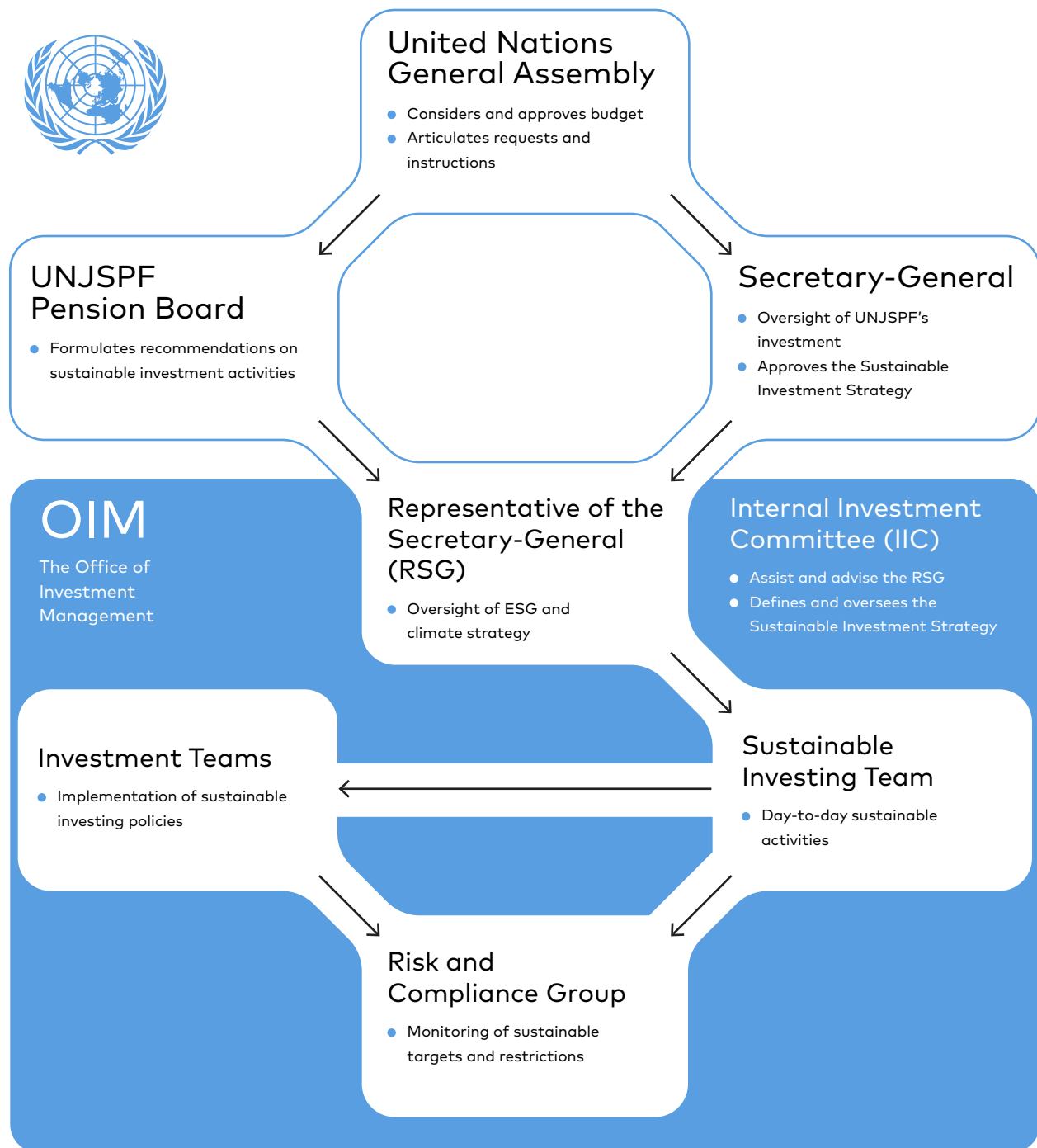
Looking forward

Appendix A:

A deeper dive on OIM's 4 pillars

Pillar 1: Governance

Organizational design



II Oversight and accountability

United Nations Secretary-General

- Purpose: The Charter describes the Secretary-General as “chief administrative officer” of the United Nations, who shall act in that capacity and perform “such other functions as are entrusted” to them by the Security Council, General Assembly, Economic and Social Council and other United Nations organs.
- Responsibilities: The investment of the assets of UNJSPF shall be decided upon by the Secretary-General after consultation with an Investments Committee and in the light of observations and suggestions made from time to time by the Board on the investments policy. The Secretary-General maintains oversight and approves the sustainable investing strategy.
- Communication: The RSG reports to the Secretary-General on ESG and climate strategy across OIM’s activities.

United Nations General Assembly

- Purpose: The General Assembly has various roles within the United Nations. The Fifth Committee is the Committee of the General Assembly with responsibilities for governance, administrative and budgetary matters.
- Responsibilities: The General Assembly/ Fifth Committee may comment and articulate various requests or instructions on any issues, including any matters addressed in these reports and documents, including ESG and climate-related issues.
- Communication: The Pension Board and the Secretary-General report to the General Assembly.

UNJSPF Pension Board

- Purpose: The Pension Board (“the Board”) is a subsidiary organ of the United Nations General Assembly. The Pension Board has the ultimate responsibility for the administration of UNJSPF and it protects the best interest of UNJSPF’s participants and beneficiaries by setting strategic goals and policies, providing general oversight and monitoring.
- Responsibilities: The Board may make recommendations on ESG activities including climate-related topics in its annual report to the General Assembly. The completion of those recommendations is verified by the Board.
- Communication: The RSG informs the Board on ESG and climate progresses across its activities.
- Members: The Pension Board has 33 members, reflecting a participatory governance structure: its tripartite membership includes representatives of (i) governing bodies, including GA members, (ii) executive heads, including the United Nations Secretary-General, and (iii) participants’ group (elected by staff members). In addition, there are four non-voting representatives of the retirees and other beneficiaries from the Federation of Associations of Former International Civil Servants (FAFICS) on the Pension Board. This structure ensures equity and inclusiveness of those who are affected by the Board’s decisions and actions, e.g., staff in active service, retirees and beneficiaries, member organizations, member states and other stakeholders.
- Meetings: at least annually

III Internal Investment Committee

- Purpose: The IIC assists and advises the RSG in respect of the investment strategy and asset allocation.
- Responsibilities: The IIC oversees and recommends OIM's approach to sustainable investing. It also ensures that responsible investment principles are incorporated into investment activities.
- Communication: The IIC maintains and distributes ESG-related information. Internal stakeholders present strategy elements to the IIC.
- Members: The Committee consists of five members: (i) CIO, (ii) Chief Risk and Compliance Officer (CRO), (iii) Director for Public Equities, (iv) Director of Fixed Income, and (v) Chief Operating Officer (COO). Permanent invitees consist of Senior Investment Officers in the Investment Sections, Senior Risk Officer, Senior Legal Officer and the Chief of Operations.
- Meetings: Monthly.

IV ESG functions at OIM

Representative of the Secretary-General

The Representative of the Secretary-General (RSG) for the investment of the assets of UNJSPF has the responsibility and authority to act on behalf of the Secretary-General in all matters involving the fiduciary duties of the Secretary-General relating to the investment of the assets of UNJSPF, including representing the Secretary-General at meetings of the Investments Committee, the Pension Board, and other meetings where investment matters pertaining to UNJSPF are discussed. The Representative of the Secretary-General is assisted by the Office of Investment Management (OIM). Investments must, at the time of initial review, meet the criteria of safety, profitability, liquidity and convertibility. The RSG is responsible for the oversight of the ESG and climate strategy of UNJSPF. The RSG's annual objectives include targets regarding the integration of ESG in the investment decision progress and incorporate climate targets.

- Purpose: The Office of the Representative of the Secretary-General (RSG) provides oversight and overall accountability for OIM activities. This involves setting overall fund strategy and creating the framework that OIM's functional areas use to establish their respective strategies and priorities.

- Responsibilities: The RSG is responsible for the oversight of the ESG and climate strategy and incorporation of the fund. The RSG's annual objectives include targets regarding the integration of ESG in the investment decision process and incorporating climate targets.
- Communication: The RSG informs the Board and reports to the Secretary-General on ESG progresses across its activities.

Sustainable Investing Team (SIT)

- Purpose: The Sustainable Investing Team is responsible for the day-to-day sustainable activities of OIM. It coordinates those activities with the various stakeholders involved in the sustainable investing process.
- Responsibilities: To help and assist the RSG, the investment teams and other stakeholders in the integration of ESG throughout the operations of UNJSPF. In particular, the SIT elaborates the sustainable investing strategy on behalf of the RSG and in coordination with the Investment and Risk and Compliance Teams.
- Communication: The SIT maintains and distributes ESG-related information to all stakeholders listed in this document.

Investment Teams

The Investment Section is tasked to implement the asset and regional exposure strategies as approved by the RSG to achieve optimal investment returns for UNJSPF while avoiding undue risks. The Chief Investment Officer, together with the Directors for Equities and fixed income teams, supervise the public and private markets which consist of the following teams: North American, European, Asia-Pacific, Global Emerging Markets, Fixed Income, External Specialty Funds Management, Trade Execution, Real Estate, Private Equity (Real Assets was consolidated under Private Equity), and Sustainable Investment. The number of teams is expected to continue to grow as the size and complexity of OIM's investment portfolio grow, and as new asset classes and investment instruments are added to OIM's toolkit.

The primary function of the teams involves investment management through monitoring of current portfolios, tracking developments and keeping abreast of financial markets, and making and implementing investment decisions.

OIM strives to avoid risks that may compromise the long-term objective of UNJSPF. As such, OIM has expanded its efforts in understanding and evaluating the impact that externalities related to ESG factors may have on its investment return and risk and is evolving its approach to sustainable investing. The objective of OIM's sustainable investing approach is to integrate ESG considerations in its investment decision making process across all asset classes.

- **Purpose:** The Investment Teams are responsible for the management of UNJSPF's assets.
- **Responsibilities:** Comply with the policies, integrate sustainable principles and policies into investment management (including pre- and post-investment activities).
- **Communication:** Investment teams receive various tools from the SIT and keep records of sustainable integration into investment processes.

Risk and Compliance Team

The Risk and Compliance Section reports to the RSG and comprises the following teams: Risk, Compliance and Performance. The teams are responsible for independently identifying, measuring and monitoring all aspects of market and operational risks to which UNJSPF is exposed, including ESG elements. In addition, it is mandated to implement adequate monitoring and control processes covering OIM's investments to ensure compliance with all OIM's policies and guidelines. The Performance Team is responsible for performance measurement and reporting (as calculated by the independent record keeper and custodian) of UNJSPF.

- **Purpose:** Oversees risks and compliance activities related to investments, including sustainability risk.
- **Responsibilities:** Monitors and ensures internal ESG rules and objectives are respected, including climate.
- **Communication:** Reports incidents and monitoring observations to internal stakeholder, including the Risk and Compliance Committee.



Pillar 2: Strategy

OIM's fiduciary duty involves executing strategies that maintain and enhance the value of UNJSPF on behalf of its clients.

It is appropriately recognized that in order to continue to fulfill OIM's duty, there is the need to understand how climate risks and opportunities affect its general asset holding strategies. In this section, OIM expounds on the implications of climate change on its management practices.

Climate risks and opportunities

As a universal asset owner, the transition and physical risks to UNJSPF span across sectors, geographies and, particularly as a pension fund, time horizons. These present a collective risk to the portfolio.

<h1>Climate risk</h1> <p>Mainly divided into physical risks and transition risks. Other components that fall under the two major kinds of climate risks include: liability risks, reputation risks, market risks, and legal and compliance risks.</p>	<h3>Physical risk</h3> <p>Chronic and acute extreme weather that result in higher opex, capex losses and write offs/ depreciation; supply chain disruptions and revenue interruptions; and health and safety threats that effect human capital, all of which will effect securities values.</p> <p>Delay in mitigation and abatement efforts exercebate physical risks and results in tipping point situations where there can be little chance of reversal.</p>	Liability risks
	<h3>Transition risk</h3> <p>Disruptions to established ways of production, business models or even market systems as a result of low-carbon economy shocks.</p> <p>Potential of raising opex and capex for new systems technology, obsolesion and stranding of old high carbon tech and assets.</p> <p>Can be gradual and manageable if mitigation efforts are pursued now.</p> <p>Will be rushed and explosive if mitigation is delayed and increasing physical risks force hasty transitions.</p>	Reputation risks
		Market risks
		Legal and compliance risks

Currently, OIM's climate risk strategy is geared toward transition risks in global equities, which account for almost 60% of investments.

Subsequent iterations of its strategy may include direct and specific strategies for physical risks. To OIM, climate opportunities are the advantages resulting from taking action that advances climate adaptation and mitigation efforts with the potential to boost the stability and growth of UNJSPF. OIM understands that climate risk mitigation is very closely intertwined with repositioning for climate opportunities.

Strategy at UNJSPF

UNJSPF's status as a member of the Net-Zero Asset Owner Alliance forms a significant part of OIM's climate risks strategy. Based on the "no and low overshoot" 1.5°C climate scenarios by the IPCC, there is the need for greenhouse gas emissions (GHG) to reach net-zero by 2050, including short- and medium-term targets.

OIM's general climate strategy as asset owners is to ensure that its portfolio holdings align with the Paris Agreement by reducing its financed emissions to a net-zero by 2050 or sooner. OIM's strategy also includes making alliances and joining action groups to benefit from the research on best practices in climate risk in the finance industry.

With guidance from the Alliance, OIM's climate risk strategy is built from the assumptions of the mitigation pathways consistent with the 1.5°C scenario. This strategy is characterized by a combination of divestment from heavy emitters, reallocation of capital to the green economy, advocacy and engagement, as well as support for corporate and industry action, and public policies to advance the energy transition. This strategy is for the short and long term, and subject to amendment as new information about climate risks become available.

This strategy is defined and consolidated by the RSG after consultation with the Sustainable Investment Team and other stakeholders. It is approved by the Internal Investment Committee, and then the Secretary-General. The Risk and Compliance Team ensures that intermediate targets are met on a continuous basis. Those targets can be found in the metrics and targets section of this report, published on OIM's website, and shared with the AOA for monitoring and evaluation purposes.

Identified risks and opportunities

As climate change and its effects become mainstream, the magnitude of climate-related risks, both transitional and physical, become significant dangers to the portfolio of OIM. As a universal asset owner, these transition and physical risks span across sectors, geographies and time horizons and present as a collective risk to the portfolio.

OIM sees climate risks as hazards to the stability and growth of UNJSPF from adverse consequences of climate change, as well as the resulting upheaval in the socioeconomic and physical environmental system the holdings in its portfolio operate in.

OIM recognizes that there are transition and physical risks to UNJSPF in the forms consistent with TCFD's identification.

Climate opportunities, to OIM, represent the potential to boost the stability and growth of UNJSPF by taking action that advances climate adaptation and mitigation efforts.

Scenario-based resilience analysis

TCFD recommends the use of various climate scenarios, including the 2°C scenario, in the climate risk recognition and management process. The spirit of this recommendation is to encourage firms to make scenario assessments according to article 2.1 of the Paris Agreement.

Previous OIM strategies that did not have any specific climate risk strategies are inadequate to secure the stability and growth of UNJSPF and would have imperiled the fiduciary duty to participants and beneficiaries. By basing its strategy on the challenging 1.5°C scenario, OIM is safeguarding UNJSPF to withstand the potential shocks that could arise down the road with less gentle transitions. Further details can be found in the use of scenario analysis section.

Climate commitments

In addition to meeting the recommendations made by TCFD, OIM's membership of the Net-Zero Asset Owner Alliance (the Alliance) forms a significant part of OIM's climate risks strategy. Major anchors in its strategy are underpinned by the target setting protocols outlined in the recent Net-Zero Asset Owner Alliance report.¹⁰

Anchor	Alliance direction adopted by OIM
Climate scenario	IPCC "no and low overshoot" 1.5°C climate scenarios
General carbon reduction targets	Paris Agreement alignment Emissions reduction to net-zero by 2050
Sub-portfolio targets	Alliance recommends a 29% reduction by 2025 from 2019 levels. Set a target for 40% (and 29% in 2021)
Engagement	Engagement with 20 highest emitters, or firms responsible for 65% of portfolio emissions
Financing	Actively reallocating funds to the low-carbon investment universe

The demarcations of climate-related financial disclosure are still being defined. In order to have access to the latest, more accurate methodologies, OIM's strategy includes making alliances and joining action groups to benefit from the research on best practices in climate risk in the finance industry.

In addition to its membership of the Alliance, OIM is signatory of the Principles for Responsible Investment (PRI) where its practices are evaluated according to the PRI standards, GRESB for guidance on sustainability for real assets and Ceres / Climate Action 100+: engagement network to advance ESG efforts.

OIM considers a Paris-aligned scenario, including the "no and low" overshoot 1.5°C IPCC scenario, adopted by members of the Alliance. Alignment to this scenario requires conformity to global emissions pathways that limit warming to 1.5°C.

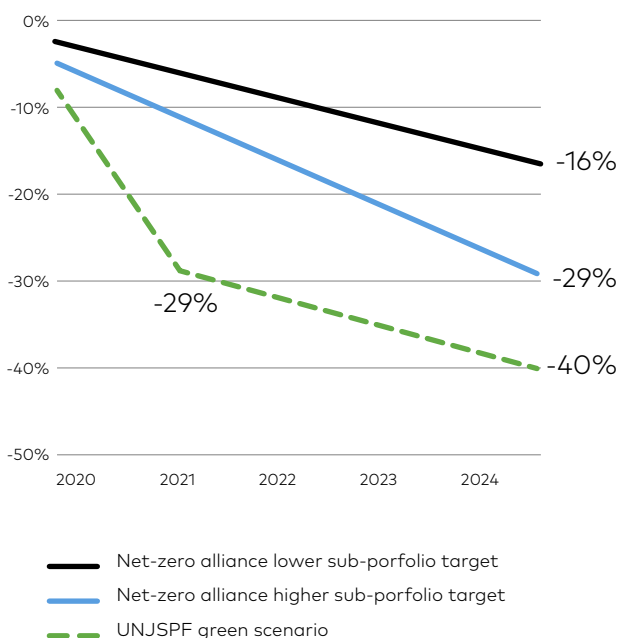
These are P1, P2 and P3 scenarios, and their underlying assumptions. Previous OIM strategies that did not have any specific climate risk strategies are inadequate to secure the stability and growth of UNJSPF going forward.

OIM is safeguarding UNJSPF to withstand the potential shocks that could arise down the road with less gentle transitions.¹¹

OIM's time horizon considerations in its strategy are based primarily on its net-zero ambitions. The long term is till 2050, and the short term is 2025.

UNJSPF - Net-zero targets by 2025

(Accumulated decrease in greenhouse gas emissions vs. 2019)



¹⁰ <https://www.unepfi.org/wordpress/wp-content/uploads/2021/01/Alliance-Target-Setting-Protocol-2021.pdf>

¹¹ Further details can be found in the use of scenario analysis section.



Pillar 3: Risk management

Risk identification and assessment

OIM uses a combination of internal and outsourced procedures when assessing climate risk. In 2019, OIM took the first step to assess its exposure to climate risk by evaluating the total carbon footprint of the equity portfolio in terms of GHG emissions. In this evaluation, OIM covered scopes 1, 2, and 3 emissions in terms of absolute emissions and scope 1 and 2 emissions in terms of intensity. For this process, the data was provided by MSCI ESG manager.

Following this initial step, OIM built an internal dashboard to continuously track the evolution of its portfolio and to be able to make informed decisions within its engagements. OIM also uses other metrics from MSCI to evaluate other climate change indicators such as fossil fuel exposure, transition risk metrics, green activities, and broader environmental factors. OIM also monitors identified investable transitioning companies and potential new candidates.

Risk management at UNJSPF

OIM's engagement provider, Hermes EOS, and its other engagement networks like Ceres and Climate Action 100+ provide regular updates on engagement progress and outcomes concerning climate risk considerations in the investee companies. OIM is confident in the effectiveness of its engagement style as one of its methods in risk management.

Additionally, OIM subscribes to Entelligent methodology to assist in evaluating the climate related risks and opportunities in the public equities portfolio. Entelligent, with its T-Risk tool, translates climate and energy information from an Integrated Assessment Model (IAM) into global energy source projections in line with energy transition scenarios methodologies. This enables security, industry group, and sector level assessment under multiple climate scenarios. Risk is currently calculated using business as usual 4.2°C.

Data use

As previously mentioned, OIM uses data from third-party providers and reports in its assessments of climate-related risk. OIM uses data from providers as inputs for targets, its monitoring, its reporting, and its internal methodology. Data from third-party reports is incorporated into its transitioning assessment methodology. Investment officers also use report data in their fundamental investment processes. OIM also commonly receives research reports from other sources that it uses to keep abreast of the latest scientific, political, and regulatory information related to climate change.

OIM has historically disclosed its data vendors in its annual sustainability report, and the outcomes of its work that utilizes external data are shared with all teams involved.

Risk mitigation strategy

In many ways, OIM's risk mitigation strategy emulates the three-pronged approach enumerated in its broader climate-related strategy. The risk mitigation goals are as follows: (1) net-zero targets with intermediary reduction thresholds, (2) divestment from fossil fuel companies, (3) engagement with other major carbon emitters via Hermes EOS and external networks like Climate Action 100+, and (4) regular monitoring of key performance indicators (KPIs) and key risk indicators (KRIs) for all portfolio companies.

OIM uses a series of KPIs and KRIs to monitor the progress of our climate risk management strategy. These include absolute scope 1 and 2 emissions, intensity of scope 1 and 2 emissions (intensity – tCO₂e/\$M sales), fossil fuel revenue, environmental impact solutions revenue, Entelligent scenario analysis derived T-Risk, MSCI Low-Carbon Transition Score, and delta variables corresponding to all KPIs listed.

Divestment is focused on fossil fuels: any company that derives either i) more than 10% of its revenues from fossil fuels or ii) more

than 1% of its revenues from thermal coal and does not belong to the MSCI low-carbon transition category of "solutions" or "neutral" is classified as a fossil fuel company.

Fossil fuel companies that have started shifting their business models toward a low-carbon economy and that plan to continue on this path to reach international agreements such as the Paris Accord are considered as investable transitioning companies.

Engagement: The highest carbon emitters are engaged both through collaborative engagements (via Ceres Climate Action 100 network, PRI network) and via direct engagements (via its service provider, Hermes).

KPI Monitoring: We monitor KPIs via different reports and dashboards – ESG Footprint Report, Carbon Exposure Report, Climate Risk Report, Reputational Risk Report, Fossil Fuel and Sustainable Company Exposure Report, Engagement Report and Proxy Voting Report.

OIM's current strategy is based on divestment, engagement, and KPI monitoring as mentioned above. OIM is further building a process to systematically integrate climate-related risks into the organization's overall risk management strategy.

Data Use and Third-Party Consultants

OIM leverages the services of third-party advisors in its ESG operations. See examples of third-party providers below.

Third-party providers



Entelligent

A provider of climate risk data and analytics aimed at assisting investors align with TCFD and net-zero objectives.



Federated Hermes EOS

An engagement service. Hermes EOS allows us to be more active owners of our assets through dialogue with investee companies on ESG issues.



MSCI ESG Manager

An online ESG research and analytics platform designed to provide tools with which to manage research, analysis and compliance tasks across ESG factors. This includes carbon and climate metrics information.



RepRisk

An ESG data service (particularly regarding reputational risk) on public and private companies.

Risk management at OIM

OIM's climate risk management is a decarbonization strategy designed to enable UNJSPF to contribute to the advancement of climate adaptation and mitigation efforts. This ensures that, while OIM minimizes its risk exposures, it also positions UNJSPF to benefit from climate transition opportunities.

Approach	Divestment	Engagement
Actions	<p>Divestment has been focused on fossil fuel companies</p> <p>OIM has targeted the whole value chain.</p> <p>OIM has divested from companies that derive either greater than 10% of their revenues from fossil fuels or greater than 1% of their revenues from thermal coal and are not shifting their business models toward a low-carbon, Paris-aligned trajectory. Fossil fuel companies that fall under OIM's definition of "transitioning investable companies" are not divested.</p>	<p>Direct engagement: via OIM's partner, Hermes EOS. Clear objectives are defined for the most important engagements and progress is monitored.</p> <p>Collaborative Engagement: Joined collaborative engagement networks like Ceres Climate Action 100+</p> <p>High carbon emitters are engaged using the two channels above.</p>
Monitoring KRIs and KPIs	<ul style="list-style-type: none"> - MSCI metrics - Entelligent E-Score and T-Risk metrics 	<p>Engagement Report and Proxy Voting Report</p>

Integration into overall risk management

OIM's current strategy is based on divestment and transitioning companies' assessment, engagement and KPI monitoring as mentioned above. OIM is further building a process to systematically integrate climate-related risks into the organization's overall risk management strategy. The first iteration of it is the Risk Tracking Dashboard.



Pillar 4: Metrics and targets

Metrics and targets at OIM

OIM uses the aforementioned KPI metrics to determine levels of severity regarding transition risk. OIM also adopts external metrics to fit its own purposes. Based on metrics OIM receives from sources like MSCI, Entelligent, TPI and Climate Action 100+, it has developed an internal fossil fuel and transitioning companies' assessment methodology. These metrics inform the fossil fuel exclusions from the public equity and corporate debt portfolios, and they also help OIM in its engagement efforts and in its proxy voting decisions. OIM regularly monitors the metrics that inform its climate strategy, and OIM replaces them if it finds more relevant metrics at any point.

Measurement of greenhouse gas emissions

In order to monitor the GHG emissions of UNJSPF, OIM uses scope 1, scope 2 and scope 3 carbon emissions data, measured in metric tons CO₂e across the metrics and targets suggested by TCFD. In order to compute these metrics, OIM sources data from the MSCI climate metrics dataset.

The UNJSPF Pension Board is informed on metrics through the Annual Report, through climate-related dashboards on the UNJSPF website, and via this TCFD Report. It then decides on how to proceed regarding key recommendations.

Setting targets

In 2020, OIM finalized a commitment made in 2019 to divest from publicly traded companies in the coal energy sector. In accordance with the expectations associated with membership in the Net-Zero Asset Owner Alliance, OIM has committed to a series of emissions reduction targets before 2025. In 2021, OIM pledged to reduce its greenhouse gas footprint by 29% in its equities and corporate bond portfolios compared to 2019 levels. By 2025, OIM is pursuing GHG emissions reductions of 40% against 2019 levels. OIM plans to achieve short-term portfolio reduction targets chiefly through divestment efforts. 2025 targets are being fulfilled via a combination of divestment from and engagement with OIM portfolio companies.¹²

In accordance with AOA recommendations, OIM is also monitoring targets within the Alliance's priority sectors (oil and gas, utilities, steel, cement, and transport — aviation, shipping, heavy duty and light duty road) based on the best-available science.

OIM management is responsible for directing climate strategy and executing decisions— including formulating targets. The Board and the Secretary-General are regularly apprised of the working of OIM via the Annual Report, this TCFD Report, and climate-related dashboards on the OIM website.

¹² UNJSPF, "The United Nations Joint Staff Pension Fund Steps Up its Climate Action with New Ambitious Targets". 17 June 2021

Appendix B:

Contributors

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Appendix C:

Acronyms

ACWI	– All Country World Index (MSCI)
AOA	– Net-Zero Asset Owner Alliance
ESG	– Environmental, Social, Governance
GHG	– Greenhouse Gas
IIC	– Internal Investment Committee
IPCC	– Intergovernmental Panel on Climate Change
IPS	– Investment Policy Statement
KPI	– Key Performance Indicator
KRI	– Key Risk Indicator
OIM	– Office of Investment Management (United Nations Joint Staff Pension Fund)
PRI	– United Nations Principles for Responsible Investment
RSG	– Representative of the Secretary-General
SIT	– Sustainable Investment Team
TCFD	– Task Force on Climate-Related Financial Disclosures
UN	– United Nations
UNJSPF	– United Nations Joint Staff Pension Fund

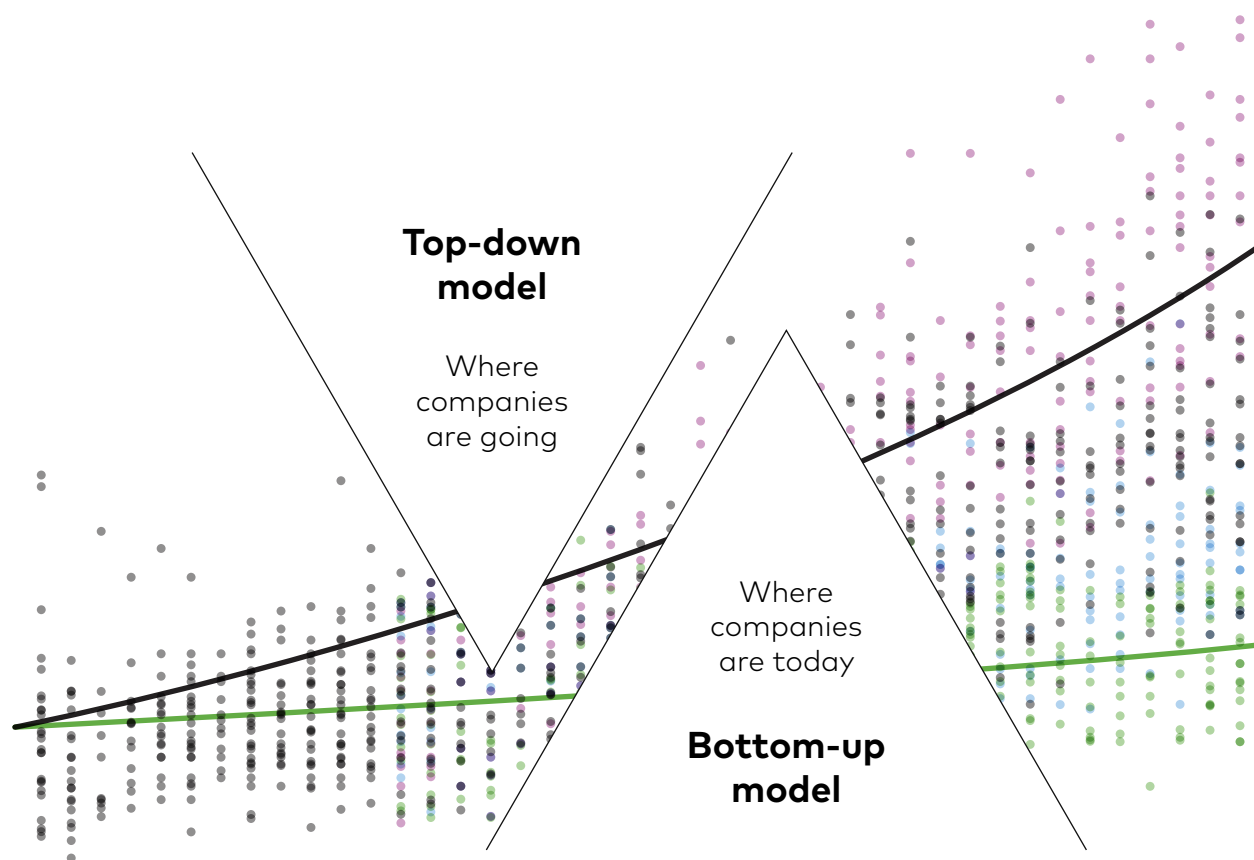
Appendix D: Entelligent P&L Risk Score

Climate is today's opportunity, not tomorrow's problem

The environmental impact of climate change will be with us for decades, but the investment impact is happening right now: via regulation, net-zero commitments and technology shifts. Every company uses energy, so each company in every industry has transition risk as the world seeks to decarbonize.

That means climate change is a pervasive risk factor in every portfolio. A climate lens on investment markets can create alpha and avoid underperformance by better understanding climate-influenced opportunities and risks in investment portfolio construction.

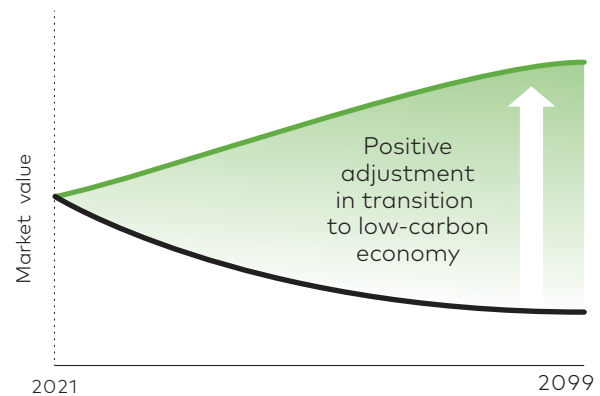
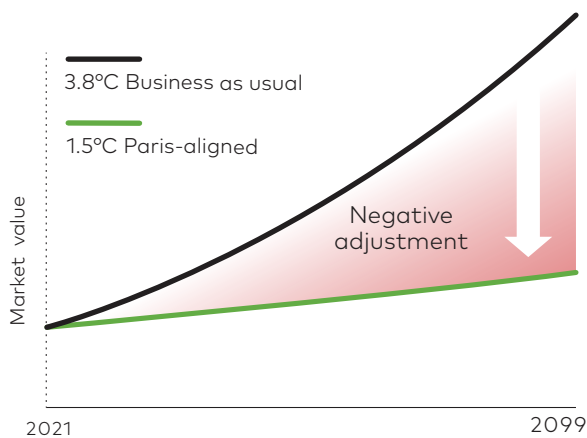
Entelligent T-Risk scores provide asset managers and investors a new, vital tool to improve both financial and environmental performance. It uses both top-down and bottom-up analysis to measure and manage climate risk. The top-down model uses a system dynamics approach to look for interrelationships between two complex systems — the climate and the economy — to understand the changing energy mix under various climate scenarios. From these future views of the energy mix, the model can provide predictions on investor returns. The bottom-up analysis is via the inclusion of data on a company's actual emissions footprint, providing a snapshot of where a company is now.



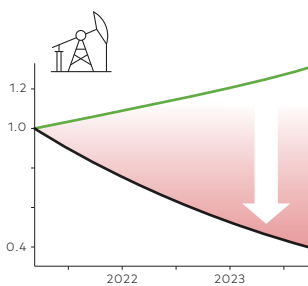
Together, these two approaches provide a view into what extent a company can thrive and generate greater investment returns in a low-carbon future.

T-Risk scores are computed through an analysis of the relationship between energy prices and historical shareholder returns. The analysis looks forward by calculating a company or a sector's potential investment returns under a business as usual energy scenario, versus a future in which the world

adheres to Paris Accord climate commitments (temperature increases are kept to under 2°C above pre-industrial age levels). Scores are created by measuring the gap between investor returns in a business as usual energy-use trajectory and those aligned with the Paris Accord. Companies expected to deliver high investor returns in a business as usual scenario — but suffer in a Paris-aligned future — get undesirably high T-Risk scores. Those that are well-aligned to the Paris scenario get a preferable low T-Risk score.



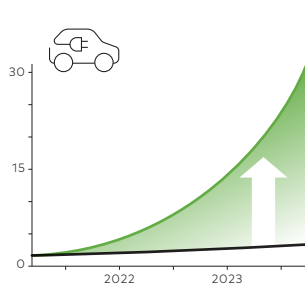
Companies that will see a benefit in a low-carbon future get a highly desirable negative T-Risk score. Within the score, carbon data is integrated as an additional layer, with a larger carbon emissions footprint coming at a cost, or penalty. T-Risk scores are fully standardized, meaning the process is the same for oil and electric vehicle companies as it is for industrial giants or financial services companies.



Petrochemical company

The models suggest lower return expectations in the transition to a low-carbon economy commensurate with a Paris-aligned scenario.

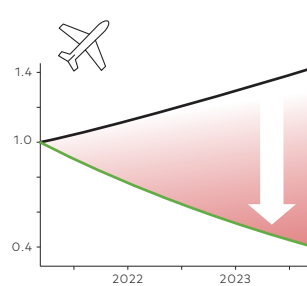
Carbon footprint = 160 ton/\$mm
T_Score = 3 (● Laggard)



Electric vehicle company

The models suggest superior return expectations in a Paris-aligned future.

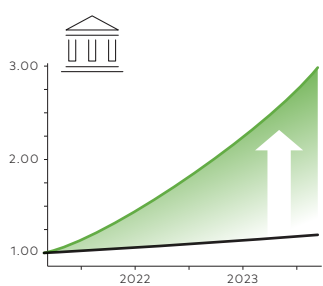
Carbon footprint = 2.5 ton/\$mm
T_Score = 0 (● Leader)



Airline company

The models suggest lower return expectations for airlines as we move from BAU to a Paris-aligned future.

Carbon footprint = 311 ton/\$mm
T_Score = 3 (● Laggard)



Bank

The models suggest a superior stock return adjustment for Bank X in a Paris-aligned future

Carbon footprint = 0.1 ton/\$mm
T_Score = 0 (● Leader)

Source: Entelligent

Forward looking, climate aware

The scores provide unprecedented insight into the expected future correlation between climate transition and carbon energy usage and the price movements of corporate equities and fixed income. T-Risk scores are forward-looking (two years) and updated quarterly — there are also more than 10 years of historical data available for performance backtesting.

While most risk methodologies seek to score companies' impact on the climate, Entelligent seeks to score climate change transition effects on companies. This means Entelligent's scores seek to be predictive, rather than a snapshot on current emissions.

Bottom line: companies with more promising sustainability and profitability expectations get better scores on the forward-looking T-Risk scale. T-Risk estimates the potential for better (or worse) investment returns for a company or industry group forced to adjust its business operations to reduce carbon in a move from a business as usual scenario to Paris-aligned net-zero.

The T-Risk is the result of the standardized translation of IAM generated climate scenario projections of public equities performance. This is based on interactions between energy sources, transition factors and entity level carbon information captured for up to 60 quarters.

T-Risk is a climate risk metric designed to improve financial and environment performance of equity investment portfolios.

- Direction and magnitude of T-Risk captures both climate scenario and transition alignments and speed of climate transition.
- Low T-Score indicates improved climate adjustments compared to peer companies. Conversely, a high T-Score indicates high exposure (and higher risk) to a transition to a low-carbon economy.

- Negative T-Risk indicates superior adjustments in a low-carbon Paris-aligned scenario relative to BAU.
- T-Risk is applicable on a company, portfolio, sector, or industry basis.

T-Risk is forward-looking, and action-based. We estimate the deviation of return forecasts two years into future to find climate transition risk. The distance between two-year cumulative return forecasts from BAU scenario to Paris-aligned scenario is taken as a measure of transition risk. The purpose of T-Risk is to reveal the climate transition alignment, or lack, of security price and performance estimates under different climate scenarios.

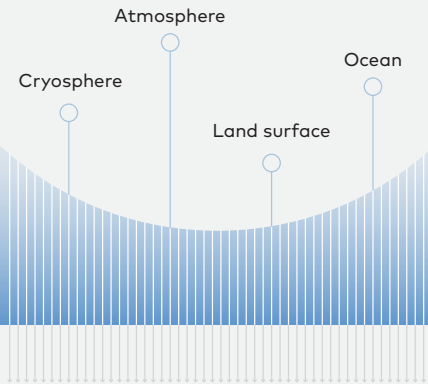
Applications of T-Risk to portfolio construction, with the purpose of reducing climate risks, results in financial outperformance and carbon reductions. This is because companies that T-Risk shows to have more resiliency toward climate and energy shocks tend to be more sustainable when compared to their peers in the same industry group and region. Additionally, the industry groups that show more resilience tend to be more sustainable when compared to others.

The T-Risk database is updated quarterly to capture the latest data, price movements and corporate actions. It is also robust scaled, such that the unit of output indicates the number of universe interquartile ranges from universe median. The T-Risk process is also used to generate the risk metrics on revenue and costs of the components of a portfolio as illustrated on the next page.

Smart Climate® data and indexes

Use E-Score® and T-Risk rankings to create bespoke indices.
 Use key risk indicators to assist investors aligning their holdings to TCFD and to the 2015 Paris commitments.

GCMs

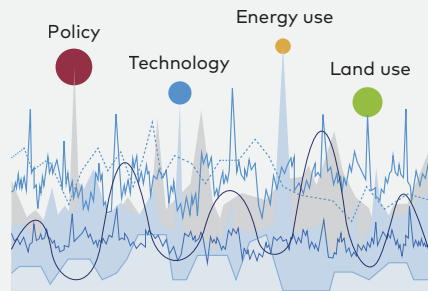


Global circulation models

Entelligent begins with the climate science: the supercomputer-driven models that tell global leaders how the climate is changing.

IAMs

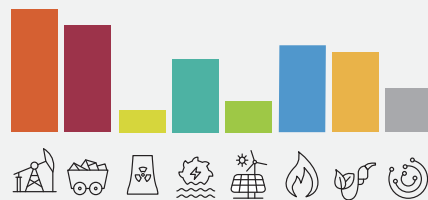
1 Systems dynamics



Integrate

Climate and economic models using the science of systems dynamics to translate physical climate processes into testable economic factors.

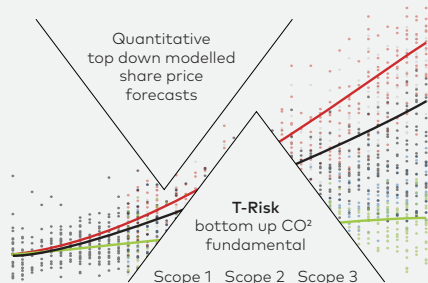
2 Energy mix



Predict

Energy demand and mix for primary energy sources across a range of likely climate futures to understand the future impacts of climate change.

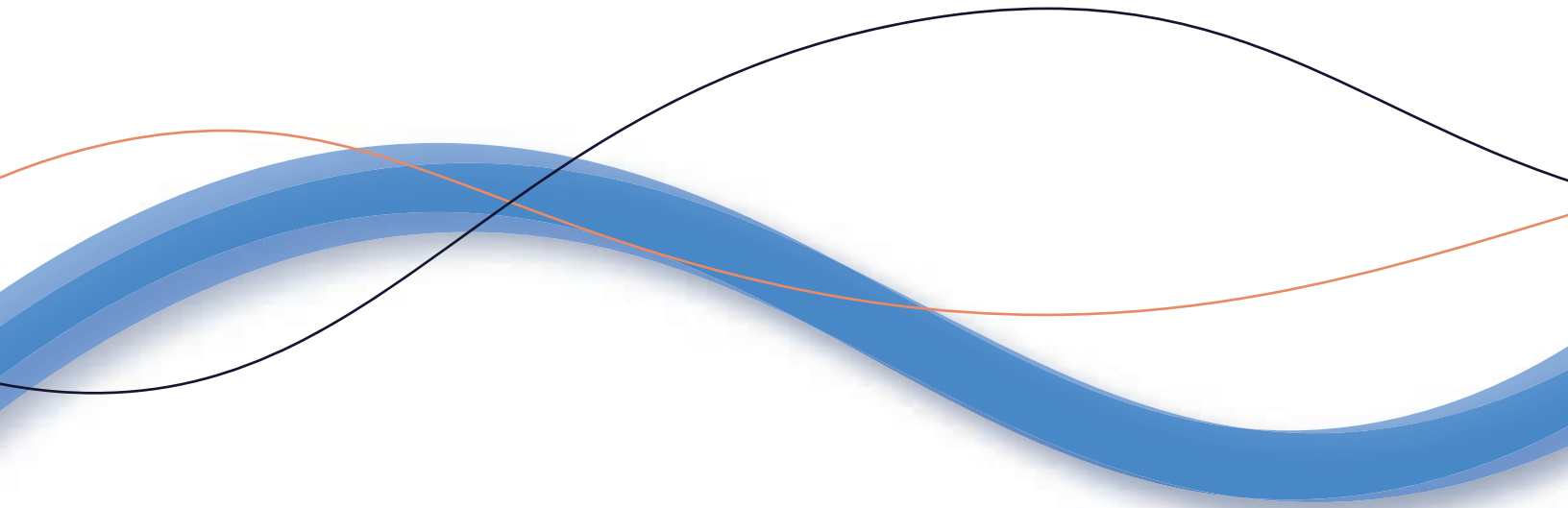
3 Downward deploy



Model

Primary energy sources and company share prices to uncover individual equity and debt exposure to potential shifts in technology, policy, supply, and demand.

Score companies based on their tested resilience and alignment toward particular climate futures.



UNJSPF

United Nations Joint
Staff Pension Fund