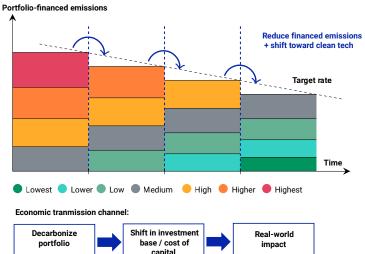


Introduction: Financing the climate transition

Investors are increasingly recognizing the impact of climate change on the global economy, an awareness that has begun to influence decision making in their portfolios. Transitioning to a low-carbon global economy is essential if the goals outlined in the 2015 Paris Agreement are to be met. As a result, assessing and managing climate-transition risks has become an increasingly important aspect of the institutional investment process.¹

Financing the climate transition is an alternative investment approach to the well-known portfolio-decarbonization approach. The approaches are compared in Exhibit 1. Both approaches aim to lower a portfolio's carbon footprint in the long run but use different economic strategies to achieve this goal. Whereas the latter focuses on reducing the financed emissions of a portfolio through portfolio reweighting, the former aims to finance companies that are climate-transition leaders in their sectors (i.e., frontrunners in transitioning their business models).

Exhibit 1: Strategic approaches to climate investing



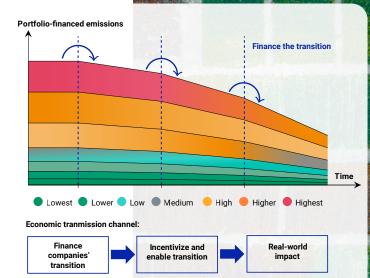


Illustration of portfolio construction approaches for low- and high-emitting companies. Source: MSCI ESG Research

Both approaches have advantages and limitations. The decarbonization approach allows investors to meet pre-defined emissions targets but may lead to lower levels of portfolio diversification and higher tracking error, especially if the decarbonization rate of the broader investment universe is much slower. The financing-the-climate-transition approach allows for diversified market representation and offers the opportunity to invest in companies that are leading their sector counterparts in transition efforts. While this approach would provide higher exposure to companies that have set targets or a track record in emissions reduction, it does not guarantee meeting pre-defined decarbonization targets.

It is important to understand that the approaches have slightly different investment objectives. In practice, investors can choose to allocate capital to both, which may allow for combining their respective advantages.



¹ Climate-transition risk refers to the potential costs faced by businesses due to the global shift toward a more-sustainable, low-carbon economy.



Climate transition has created opportunities

A global economy taking steps to decarbonize is likely to create opportunities for companies that are transitioning their business models in the face of climate change. An increasing number of investors are also looking for ways to seize financial opportunities from the transition.

The transition to low carbon requires significant investments in new technology (e.g., installing new wind- or solar-power capacity, increasing energy efficiency, and adopting carbon-capture and storage solutions) to replace existing fossil-fuel-based technology. This technology transition offers significant opportunities for investing in the companies leading the way. At the same time, some investors may consider that investments in companies lagging in the technology transition pose risks.

The approach of financing the climate transition also has a clear economic rationale: from a company perspective, it addresses the financial need of companies to transition their business models, and from an investor's perspective, it offers the opportunity to invest in companies that are leading their sector counterparts in rebuilding their business models.

This technology shift has already started to materialize in the form of a shift in corporate earnings in global equity markets, as measured by the MSCI ACWI Investable Market Index (IMI) and shown in Exhibit 2. In the three most-carbon-intensive Global Industry Classification Standard (GICS®)² sectors (i.e., utilities, materials and energy), companies with higher exposure to green revenues showed higher earnings-growth rates than their sector peers with lower green revenues.

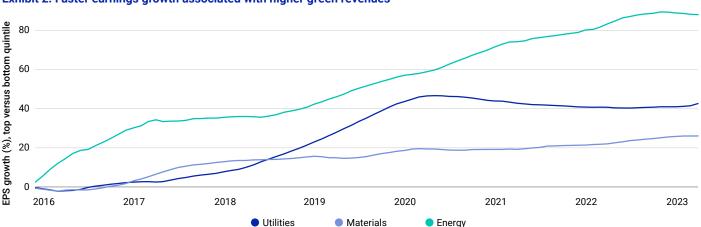


Exhibit 2: Faster earnings growth associated with higher green revenues

Green revenues include MSCI ESG Research's estimates of revenues from energy efficiency, alternative energy and green buildings through the MSCI ACWI Sustainable Impact Index Methodology. The universe is the constituents of the MSCI ACWI IMI as of April 2023. Source: Chris Cote and Guido Giese, "The Climate Transition Is Increasingly about Opportunity." MSCI ESG Research, May 15, 2023.

² GICS is the global industry classification standard jointly developed by MSCI and S&P Global Market Intelligence.

MSCI Transition Aware Select Indexes Methodology overview

The MSCI Transition Aware Select Indexes (the "Indexes") are designed to represent the performance of companies that have been assessed as leaders in terms of their positioning and actions relative to a climate transition. The Indexes follow a transparent rules-based methodology framework that offers visibility into security selection and weighting.³ Companies are included based on their sector-relative greenhouse gas (GHG) emissions intensity and measures taken to reduce emissions. The methodology reflects the financing-the-climate-transition approach of climate investing.

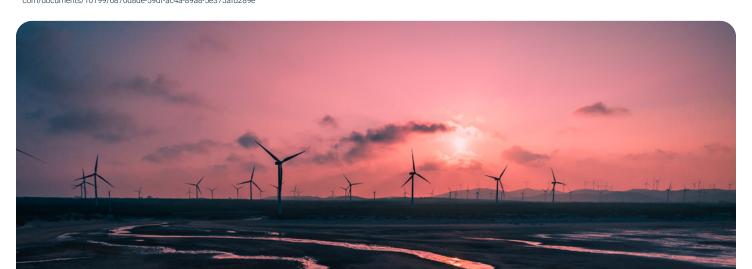
The Indexes follow a bottom-up approach in which the constituents of the underlying MSCI Indexes (the "Parent Indexes") are selected based on an assessment of the following three dimensions:

- 1 One or more GHG-emissions-reduction targets approved by the Science Based Targets initiative (SBTi).
- 2 Revenue above a threshold from greener businesses (i.e., greater than or equal to 20%).
- 3 Relative to sector peers based on GHG emissions (Scope 1 + 2) intensity. The Indexes use this assessment to select the top 50% (by market capitalization) of the securities from each GICS sector in the Parent Indexes. This selection is limited to the companies that disclose emissions-reduction targets.

Exhibit 3: Climate-change metrics used in index construction

Climate metric	Calculation	Rationale
SBTi-approved emissions- reduction targets	A company's emissions-reduction targets are independently approved as science-based targets and are aligned with the goal of keeping global warming at or below 2°C.	Setting comprehensive and credible targets is key to managing and mitigating transition risks.
Green-business revenue	Measures a company's revenue generated from products or services related to various clean-tech themes.	Indicates to what extent companies have already started to transition their business models toward products and services that are aligned with the low-carbon economy.
GHG-emissions intensity	Scope 1 + 2 GHG emissions per USD 1 million of a company's enterprise value including cash (EVIC).	Proxy for a company's transition risks, particularly in the absence of the other two climate metrics.

³ This document provides a high-level overview of the methodology. For full methodology details, please refer to: https://www.msci.com/documents/10199/6870d8de-59df-ac4a-89a8-5e375afd289e



Although assessing and managing climate-transition risks is an important investor objective, institutional investors must also consider their fiduciary responsibilities. Generally, investors need to balance the trade-offs between achieving climate objectives and financial objectives, such as tracking error and diversification (e.g., country and sector allocations). The selected stocks are weighted in terms of financial metrics in proportion to their market capitalization in the Parent Index. Additionally, the index methodology incorporates specific rules so that the active weights at the issuer, sector and country levels do not deviate significantly from the Parent Index.

Furthermore, the Indexes exclude companies that do not disclose their emissions or emissions-reduction targets in the more-carbon-intensive sectors, namely, energy, materials, industrials and utilities.

More details on the calculation methodology of climate metrics and the index methodology rules are available in the MSCI Transition Aware Select Indexes Methodology.



Key index metrics

We compare the simulated performance and other characteristics for the MSCI World Transition Aware Select and MSCI World Climate Paris Aligned Benchmark Select Indexes from December 2018 through March 2024 in Exhibit 4.⁴ Both indexes had, on average, a similar number of constituents and similar turnover during the period.

The index methodologies contrast the two climate-investing approaches: financing the climate transition (MSCI World Transition Aware Select Index) versus portfolio decarbonization (MSCI World Climate Paris Aligned Benchmark Select Index).

Exhibit 4: Key metrics and backtested performance

	MSCI World Index	MSCI World Transition Aware Select Index	MSCI World Climate Paris Aligned Benchmark Select Index
FINANCIAL METRICS			
Total return* (%)	12.7	13.6	12.5
Total risk (%)	18.2	17.9	18.5
Return/Risk	0.70	0.76	0.68
Active return (%)	0.0	0.9	-0.2
Tracking error (%)	0.0	1.5	1.9
Information ratio		0.60	-0.09
Number of constituents**	1,568	749	762
Turnover*** (%)	2.5	10.4	12.0

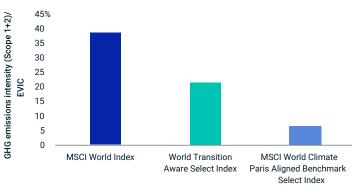
Data period for financial metrics is Nov. 30, 2018, to March 31, 2024. * Gross returns are annualized in USD. ** Calculated based on monthly average. *** Calculated as annualized one-way index turnover divided by index reviews.

⁴ The analysis and observations in this report are limited solely to the period of the relevant historical data, backtest or simulation. There are frequently material differences between backtested or simulated performance results and actual results subsequently achieved by any investment strategy. Past performance — whether actual, backtested or simulated — is no indication or guarantee of future performance. None of the information or analysis herein is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision or asset allocation and should not be relied on as such.

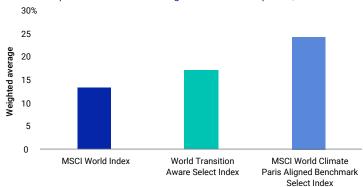
Both climate indexes had a significantly better climate profile compared to their parent MSCI World Index across several key climate metrics.

Exhibit 5: Key climate metrics

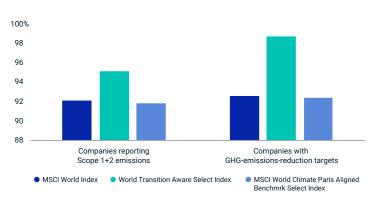
Panel A. GHG-emissions-intensity footprint



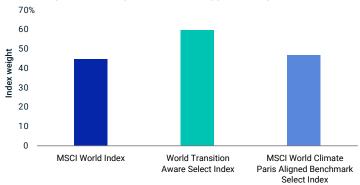
Panel B. Exposure to clean-technologies-solutions companies, ≥ 20% revenue



Panel C. Exposure to companies reporting emissions and targets



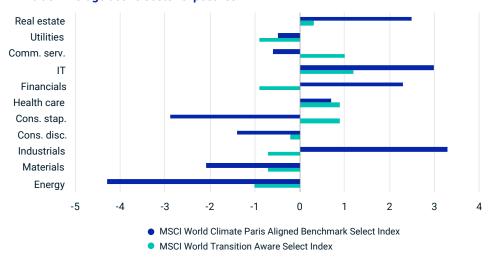
Panel D. Exposure to companies with SBTi-approved targets



Data as of March 29, 2024. GHG emissions intensity to EVIC is defined as the weighted average Scope 1 + 2 GHG emissions intensity normalized by EVIC. Unit is tons of CO2/USD million EVIC.

Sector exposures of the MSCI World Transition Aware Select Index have been in line with the MSCI World Index, not exceeding, on average, the sector weights by more than 1% between Nov. 30, 2018, to March 31, 2024.

Exhibit 6: Average active sector exposures

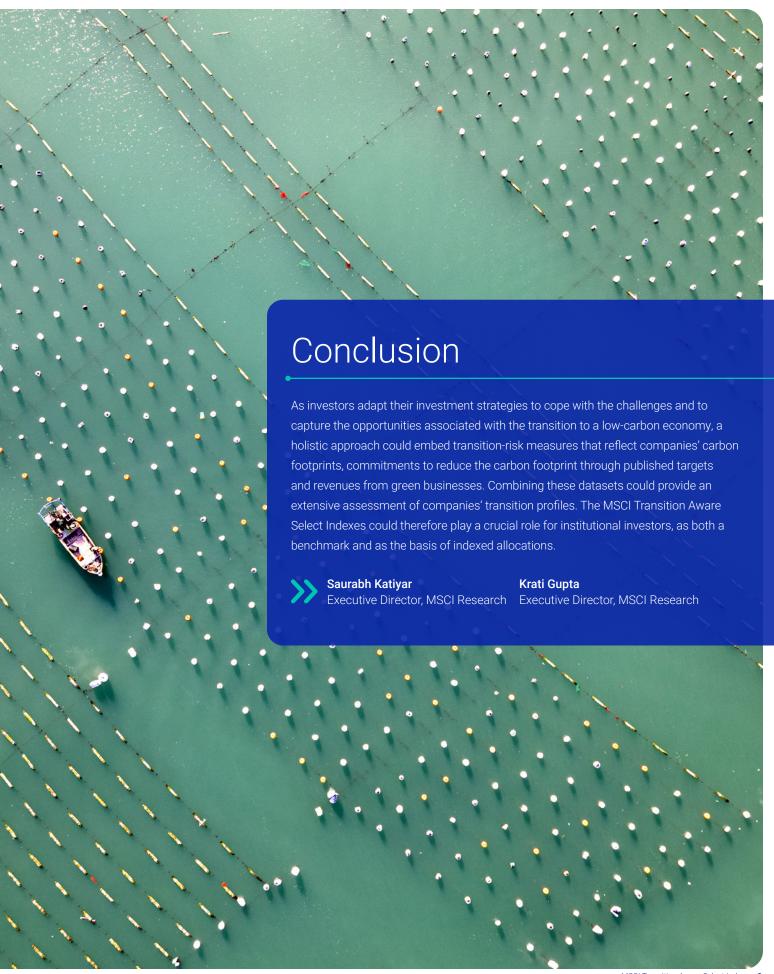


Data from Nov. 30, 2018, to March 31, 2024.

Index applications

MSCI Transition Aware Select Indexes can be used in the following ways:

- 1 The basis for index-based strategies, such as index-linked funds or ETFs.
- 2 Benchmarks for climate-aware portfolios to assess their financial and climate characteristics compared to active managers' portfolios.
- 3 The underlying index for structured products and derivatives.





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