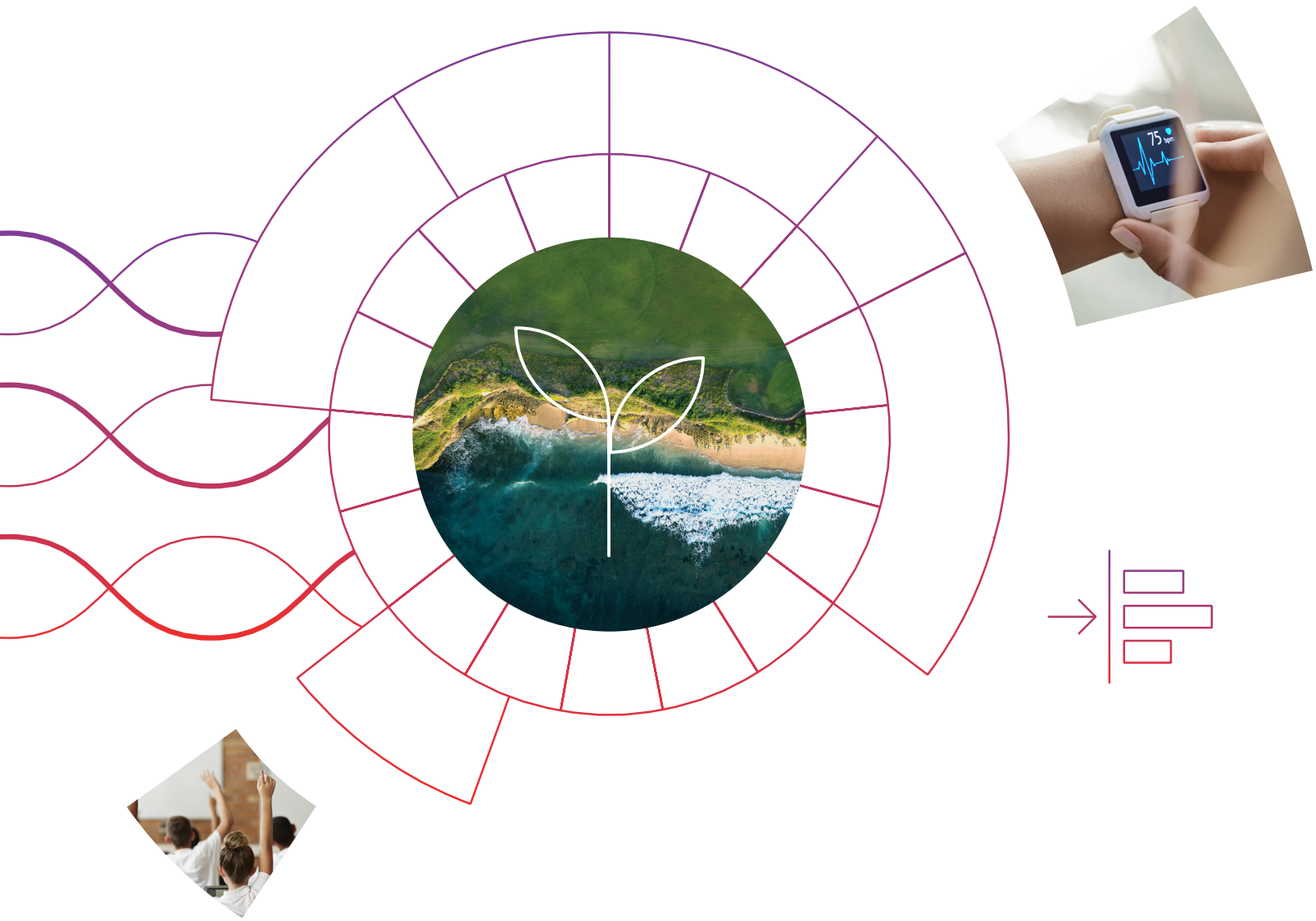


Targeting impact with indexes



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For many sustainable investors, it's all about impact. Whereas environmental, social, and governance-based investments often focus on material financial risks that affect companies, impact takes the opposite vantage point: How can investments help improve the world? The market is large. According to the Global Impact Investing Network, nearly \$1.2 trillion worldwide has been allocated by investors to address challenges like climate change and poverty, while simultaneously pursuing financial return.¹

Unlike financial return, however, impact can be difficult to define, challenging to quantify, and costly to implement as an investment strategy. Few standards exist. Impact investors must choose outputs, methods of measurement, and styles of data analysis. Benchmarks that balance impact and investment performance are lacking.

The United Nations Sustainable Development Goals, which represent a global consensus on the most pressing issues faced by humanity, provide a North Star to impact investors. Agreed upon by 193 member states in 2015, the 17 goals focus on both “people and planet.” Achieving the SDGs is the responsibility not just of governments and nonprofits but also of the business community. For impact investors, the goals can serve as a framework and measurement tool.

The Morningstar® Global Sustainable Activities Involvement Indexes™ include public companies whose business activities address the world's social and environmental challenges, as defined by the Sustainable Development Goals. Security selection is revenue-based. The indexes include companies that derive at least 50% of their revenues from one or more of five impact themes identified by Sustainalytics, a Morningstar company specializing in environmental, social, and governance research. The indexes, which feature stringent ESG screening in addition to tilting weight by impact revenue, can augment the toolkit of impact investors.

¹ Hand, D., Ringer, B., and Alexander, D. “GIINSight: Sizing the Impact Investing Market 2022.” Global Impact Investing Network <https://thegiin.org/research/publication/impact-investing-market-size-2022/>

Measuring impact

For investors aiming to affect positive, measurable change, while also pursuing financial return, Morningstar Sustainalytics' Impact Metrics² quantify companies' contribution to environmental and social challenges. The metrics measure revenue aligned to the Sustainable Development Goals, which span human rights, healthcare, education, and preservation of air, land, and sea.³

As displayed in Exhibit 1, Sustainalytics has mapped the SDGs into five impact themes:

Climate action: The global effort to curb the Earth's temperature rise and cope with its consequences.

It includes measures to promote clean energy, reduce greenhouse gas emissions, and adapt to climate change

Healthy ecosystems: Healthy Ecosystems: The safeguarding of ecologically sound environments on land, air, and water. It does not include greenhouse gas emissions and water consumption as these are covered under other themes.

Resource security: The contribution to security through efficient use and circular economies. Resources of concern include water, timber, metals, minerals, gases, and all types of manufactured materials.

Basic needs: Addressing the needs of humans, in particular the needs of low-income individuals. Basic needs include providing access to food, housing, essential healthcare concerning major and neglected diseases, clean water, and energy for underserved populations. It also addresses human safety, including safe workplaces and communities.

Human development: Enhancing human capabilities and promoting human progress. It includes measures that support education, improve equality, employment opportunities, and advanced healthcare.

Exhibit 1: Impact metrics allow investors to assess the impact of companies' economic activities in line with U.N. SDGs



Source: Morningstar Sustainalytics

² For more on Impact Metrics from Morningstar Sustainalytics, see: <https://www.sustainalytics.com/impact-reporting>

³ For more on the United Nations Sustainable Development Goals, see: <https://sdgs.un.org/goals>

Sustainalytics' Activity-Based Research approach was established in the context of growing regulatory pressure in Europe and focused on companies' individual business activities. Thus, this research interprets a company as a portfolio of (possibly multiple) business activities, rather than as a monolithic entity. Activities are generally defined following the NACE classification,⁴ though they can also be aggregated to a more granular level or disaggregated to a less granular one.

The 80 metrics are revenue-based. To appreciate the granularity of the dataset, consider a sample of metrics displayed in Exhibit 2. Notably, metrics can be mapped to multiple SDGs or themes. For example, Machinery for Sustainable Agriculture can be mapped to both Healthy Ecosystems and Resource Security, while Construction of Green Buildings is mapped to both Climate Action and Resource Security.

Exhibit 2: Each of the 80+ impact metrics, all based on corporate revenues, is mapped to sustainable activities theme(s)

SAI metric	Impact theme	SAI metric description	SDG mapping
Technologies Energy Efficiency Distribution	Climate Action	This metric assesses the revenue a company derives from the manufacture of low-carbon technologies or products that increase the efficiency of energy management, storage, or distribution.	7
Machinery Sustainable Agriculture	Healthy Ecosystems, Resource Security	This metric assesses the revenue a company derives from the manufacture of agricultural and forestry machinery that supports sustainable agriculture.	2, 12, 14, 15
Medical Equipment Major/Neglected Diseases	Basic Needs	This metric assesses the revenue a company derives from the manufacture of medical devices, equipment, tools, and supplies dedicated to the treatment of major or neglected diseases.	3
Construction Green Buildings	Climate Action, Resource Security	This metric assesses the revenue a company derives from the construction of new residential and nonresidential buildings that have received green building certification.	11, 12, 13

Source: Morningstar Sustainalytics

⁴ For more on NACE classifications, see: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=NACE_background

Introducing the Morningstar Global Sustainable Activities Involvement Indexes

The Morningstar® Global Sustainable Activities Involvement Indexes™ include companies whose business activities align with the United Nations Sustainable Development Goals. Index constituents must pass stringent ESG screens and derive at least 50% of revenues from one or more of the following Sustainalytics' Impact Themes: Human Development, Climate Action, Healthy Ecosystems, Resource Security, and Basic Needs. To emphasize companies that are signalling positive contribution, index weights are tilted toward those with the greatest percentage of revenue derived from SDG-aligned activities, as measured by Sustainalytics' Sustainable Activities Involvement Metrics.⁵

The metrics used for Index construction help identify companies that earn revenues from various economic activities aligned with achieving a more just and sustainable world. Sustainalytics applies a safeguard to each activity, which ensures each activity meets specified standards to be eligible for Sustainable Investment classification.

The Morningstar Global Sustainable Activities Involvement Indexes:

Individual impact theme indexes:

Morningstar® Global Climate Action Activities Involvement Index™

Morningstar® Global Resource Security Activities Involvement Index™

Morningstar® Global Healthy Ecosystems Activities Involvement Index™

Morningstar® Global Basic Needs Activities Involvement Index™

Morningstar® Global Human Development and Resource Security Activities Involvement Index™

Multi-impact theme indexes:

Morningstar® Developed Markets Sustainable Activities Involvement™

Morningstar® Developed Markets Europe Sustainable Activities Involvement™

Morningstar® Transatlantic Sustainable Activities Involvement™

Aggregate impact theme index:

Morningstar® Global Sustainable Activities Involvement Index™

Descriptions of indexes focused on the five individual impact themes

The Morningstar® Global Climate Action Activities Involvement Index™ includes companies whose business activities align with the climate-related United Nation Sustainable Development Goals. Index constituents must pass stringent ESG screens and derive at least 25% of revenues from Sustainalytics' Climate Action Impact Theme. To strengthen exposure to the theme, index weights are tilted toward those companies with the greatest percentage of revenue derived from SDG-aligned activities, as measured by the Sustainalytics Sustainable Activities Involvement Metrics.

⁵ For a comprehensive discussion of index construction methodology, refer to Morningstar Indexes' rulebook <https://indexes.morningstar.com/docs/rulebook/morningstar-global-sustainable-activities-involvement-FS000012J5>

The **Morningstar® Global Healthy Ecosystems Activities Involvement Index™** includes companies whose business activities align with the healthy ecosystem-related United Nations Sustainable Development Goals. Index constituents must pass stringent ESG screens and derive at least 25% of revenues from the Sustainalytics' Healthy Ecosystems Impact Theme. To strengthen exposure to the theme, index weights are tilted toward those companies with the greatest percentage of revenue derived from SDG-aligned activities, as measured by the Sustainalytics Sustainable Activities Involvement Metrics.

The **Morningstar® Human Development and Resource Security Involvement Index™** includes companies whose business activities align with the human development and resource security-related United Nations Sustainable Development Goals. Index constituents must pass stringent ESG screens and derive at least 25% of revenues from the Sustainalytics' Human Development and Resource Security Themes. To strengthen exposure to the theme, index weights are tilted toward those companies with the greatest percentage of revenue derived from SDG-aligned activities, as measured by the Sustainalytics Sustainable Activities Involvement Metrics.

The **Morningstar® Global Resource Security Activities Involvement Index™** includes companies whose business activities align with the resource security-related United Nations Sustainable Development Goals. Index constituents must pass stringent ESG screens and derive at least 25% of revenues from the Sustainalytics' Resource Security Impact Theme. To strengthen exposure to the theme, index weights are tilted toward those with the greatest percentage of revenue derived from SDG-aligned activities, as measured by the Sustainalytics Sustainable Activities Involvement Metrics.

The **Morningstar® Global Basic Needs Activities Involvement Index™** includes companies whose business activities align with the basic needs-related United Nations Sustainable Development Goals. Index constituents must pass stringent ESG screens and derive at least 25% of revenues from the Sustainalytics' Basic Needs Impact Theme. To strengthen exposure to the theme, index weights are tilted toward those with the greatest percentage of revenue derived from SDG-aligned activities, as measured by the Sustainalytics Sustainable Activities Involvement Metrics.

Eligibility

The indexes derive their constituents from the Morningstar Global All Cap Target Market Exposure Index, which includes large-, mid-, and small-cap stocks representing 99% of equity market capitalization across developed and emerging markets. Securities may not have a Sustainalytics-assigned Controversy rating greater than 2 (on a five-point scale) or an ESG Risk Rating of Severe. They must be in compliance with the United Nations General Compact and must pass through a variety of product involvement screens (tobacco, weapons, and so on).

Selection

Eligible securities are included if at least 50% of their revenues are deemed to be aligned with one of the five sustainable activities, or 25% for any of the single-theme indexes. To minimize turnover, existing index constituents may remain if their revenues meet a 40% threshold. The number of constituents is variable, depending on eligibility and selection.

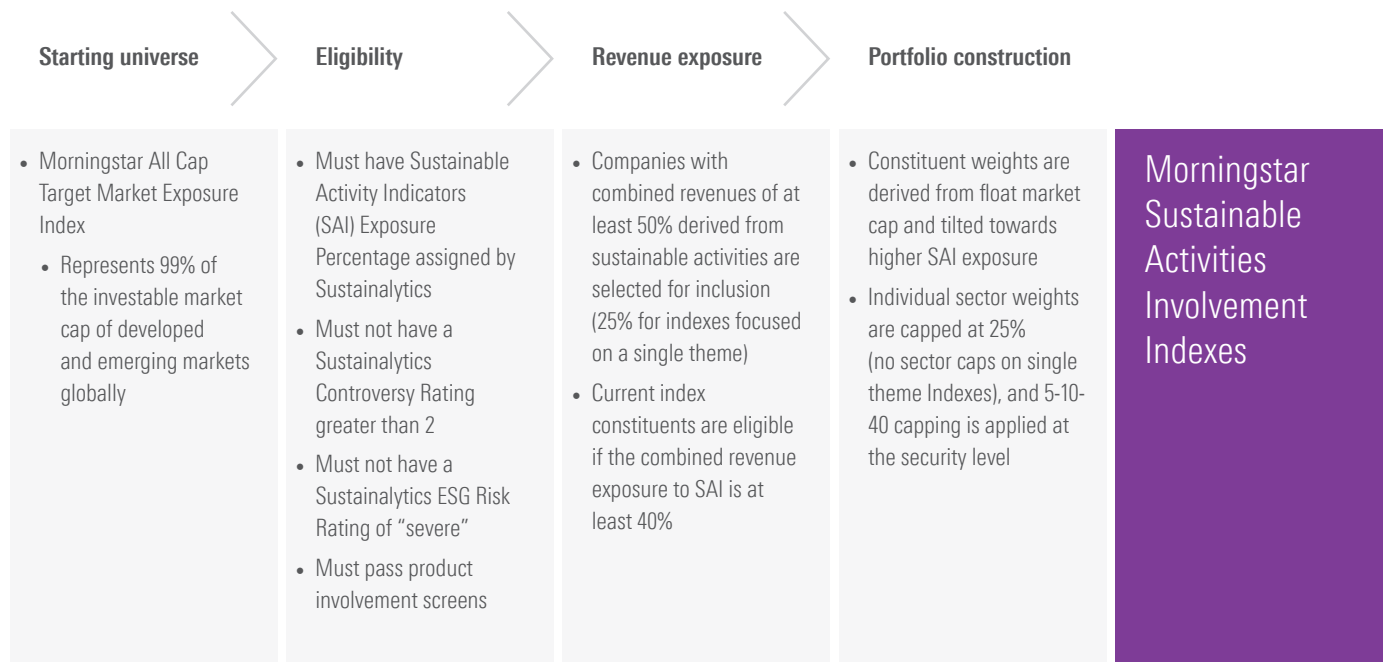
Weighting

The indexes employ a tilt weighting scheme that considers both market capitalization and the percentage of corporate revenue aligned with sustainable activities. Companies with a higher percentage of sustainable revenue will receive more index weight than their market capitalization alone would imply. Individual security weights are capped as a risk-control measure.

Reconstitution/Rebalancing

Index membership is reset semiannually, and weights are rebalanced quarterly.

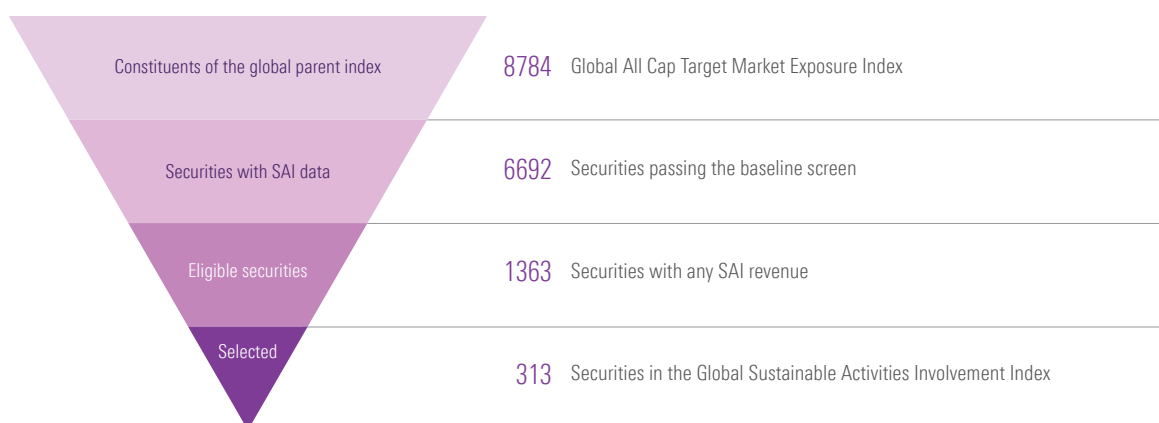
Index construction process



Analyzing impact through indexes

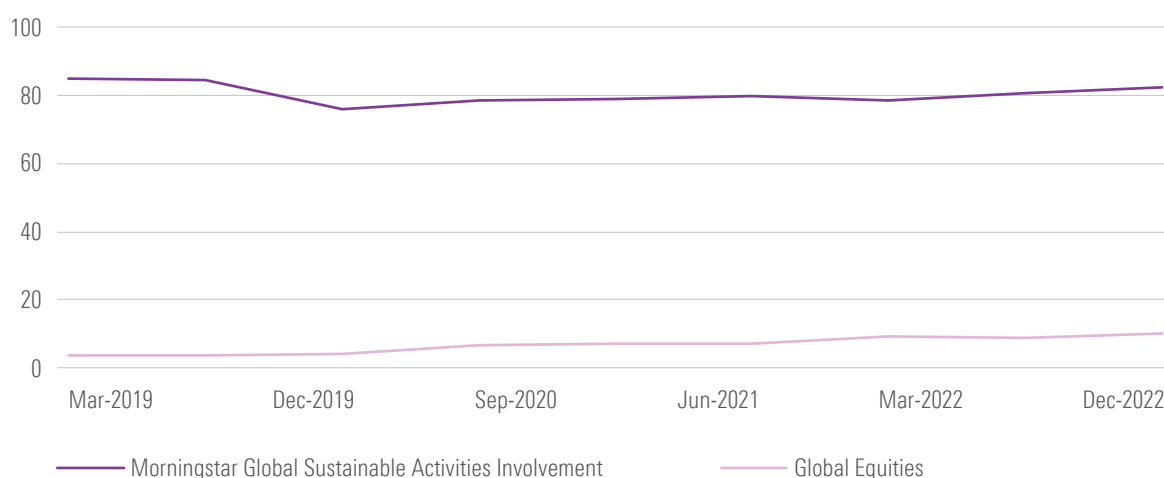
Analysis of the Morningstar Global Sustainable Activities Indexes at the time of their launch in 2023 provides insight into the composition and behavior of sustainable investments. First, it is instructive to understand the selective nature of the index construction methodology. Of the many thousands of companies in the parent index, less than 5% made their way into the Morningstar Global Sustainable Activities Involvement Indexes because at least 50% of their revenues are aligned with sustainable activities.

Exhibit 3: The Sustainable Activities Involvement Indexes are extremely selective



This selective approach results in a portfolio of companies with roughly 80% of revenue alignment with sustainable activities for the Morningstar Global Sustainable Activities Involvement Index, or SAI, which is the most inclusive variant. This compares with less than 10% of revenues aligned with sustainable activities for the broad global equities universe as defined by the parent index, as displayed in Exhibit 4.

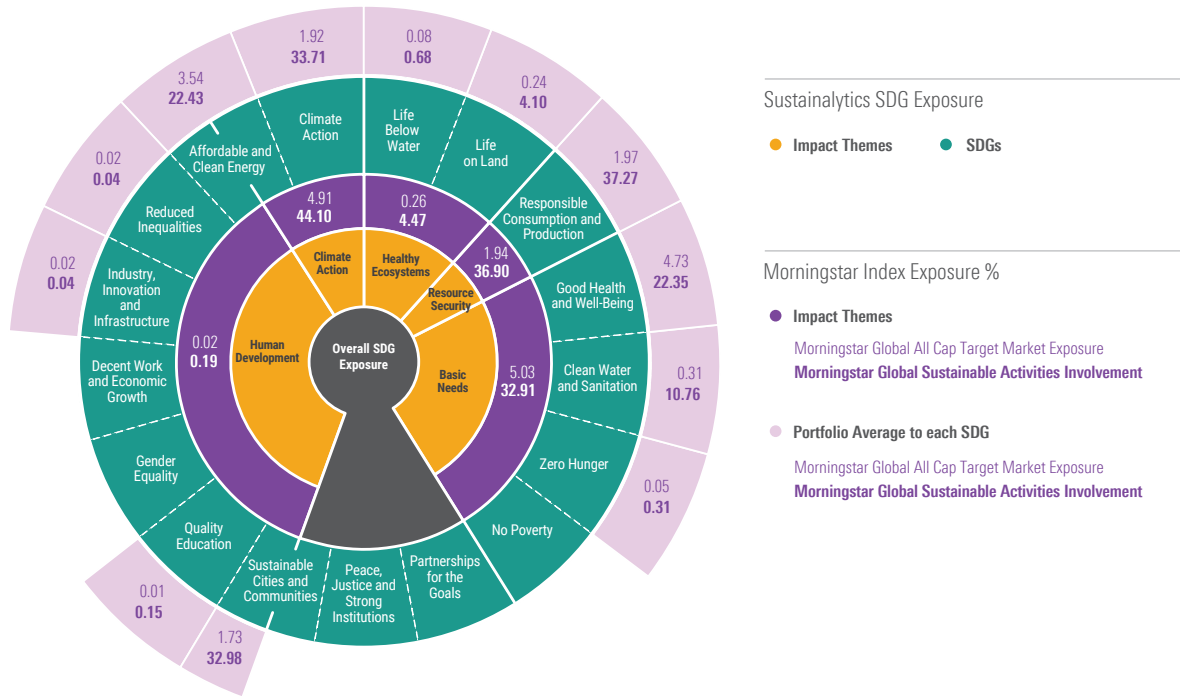
Exhibit 4: A high percentage of SAI index's revenues are impact-aligned



Source: Morningstar Indexes. Global Equities proxied by the Morningstar Global All-Cap Target Exposure Index. Weighted Average portfolio impact-aligned revenue calculation: Security level aggregate SAI revenue exposure % * Security Weight

Exhibit 5 visualizes how index revenue aligns with the five impact themes and, in turn, to the SDGs that are covered by Sustainalytics revenue data.

Exhibit 5: Compared with the broad global equities universe, the bulk of the SAI index's revenues map to impact themes and SDGs



CASE STUDIES

So, what kinds of companies are driving impact alignment? To bring the index methodology to life, consider some examples of companies that passed the rigorous ESG and revenue-based screens to merit index inclusion at index launch in the first quarter of 2023.

Companies with Sustainable Activities Involvement

Icade is a real estate business based in France involved in the healthcare-related property. In addition to its involvement in healthcare, the company has meaningfully reduced the carbon emissions of its properties; all of its large healthcare properties have achieved an environmental certification of “very good” or higher; and all of its business parks are deemed to have a positive impact on biodiversity. The company’s revenues are aligned with a number of SDGs, including 3, Good Health and Wellbeing, 7, Affordable and Clean Energy, and 6, Clean Water and Sanitation.

Micron Technology is a U.S.-based semiconductor-maker that specializes in the production of computer memory and computer data storage such as random-access memory, flash memory, and USB drives. Micron puts sustainability at front and center of design by optimizing for higher capacity, reliability, and increased energy and material efficiency. Its U.S. operations are set to be powered by 100% renewable energy by 2025. The company’s revenues are primarily aligned with SDG 7, Affordable and Clean Energy.















Smart Metering Systems is a UK-based company, classified in the industrials sector, facilitating the transition to green energy. SMS provides solutions and data that allow for carbon emissions reduction through efficiency, storage, and usage of renewable energy and electric vehicles. The company’s revenues are aligned with SDGs 7, Affordable and Clean Energy, and 13, Climate Action.

Svenska Cellulosa, classified in the basic materials sector, is Europe's largest private forest owner. A Swedish company, SCA manufactures containerboard paper, wood, and pulp and is also involved in renewable energy. The company’s 2.6 million hectares of forest contribute to sequestering significant amounts of carbon dioxide to battle climate change, and it is also a large producer of biofuels. SCA's revenues are aligned with several SDGs, including 12, Responsible Consumption and Production, and 15, Life on Land.

Takeda Pharmaceuticals is engaged in the research, development, manufacture, and sale of drugs. The company has made progress in ensuring there is global product availability for climate-related diseases such as malaria and dengue; for instance, its dengue fever vaccine became the first of its type to participate in EMAs trials for use in the EU. Its revenues are mainly aligned with SDG 3, Good Health and Well-Being.

The indexes' selective approach also results in exposure that is highly distinctive, diverging meaningfully not just from the broad market portfolio but also from an index screened on the basis of ESG risk—the Morningstar Global Sustainability Index. First, consider some holdings-based comparisons. From a sector perspective, displayed in Exhibit 6, the SAI is heavily weighted toward real estate, industrials, healthcare, and utilities. The ESG-risk focused index, for its part, looks more marketlike in its composition. Its technology weight is even slightly above-market, as technology companies face relatively few ESG risks, especially compared with sectors like energy, materials, and industrials.

Exhibit 6: SAI index's sector composition diverges significantly from both market exposure and ESG-risk-based exposure

Sectors	SAI Index (%)	Global Equities Index (%)	Global Sustainability Index (%)
 Cyclical			
 Basic Materials	3.2	5.2	3.1
 Consumer Cyclical	5.0	10.6	10.3
 Financial Services	0.1	16.3	18.0
 Real Estate	13.4	3.4	5.0
 Sensitive			
 Communication Services	0.0	6.3	5.1
 Energy	0.0	5.3	3.2
 Industrials	25.0	11.3	11.2
 Technology	15.3	18.0	19.6
 Defensive			
 Consumer Defensive	0.4	7.7	6.6
 Healthcare	25.0	12.9	13.4
 Utilities	12.6	3.1	1.6

From a regional perspective, displayed in Exhibit 7, the SAI index is heavily weighted toward Asia Pacific and Europe, compared with both the global equities universe and the ESG-risk-focused index.

Exhibit 7: SAI index's regional composition diverges significantly from both market exposure and ESG-risk-based exposure

	SAI Index	Global Equities Index	Global Sustainability Index
Asia Pacific	26.0	19.5	16.9
Europe	24.8	16.9	20.5
North America	48.1	61.0	61.8
Other	1.1	2.6	0.8

Source: Morningstar Indexes. Data as of December 2022

Meanwhile, index performance also tells the story of significant deviation from broad market exposure and the ESG risk-focused index. The Sustainable Activities Involvement indexes, which have simulated histories from December 2018 based on historical revenue data, can help investors understand risk/return characteristics of impact investments.

As might be expected for a selective portfolio with minimal constraints and significant deviation from the market at the sector and regional levels, the SAI index's tracking error, or performance deviation from the parent index, was significant. The index has slightly underperformed the broad equities market since 2018, mostly because of its below market weights in technology and the U.S. In the down year of 2022, the index's light exposure to technology and overweight exposure to utilities and healthcare mitigated declines.

Exhibit 8: SAI index's performance has diverged meaningfully from the broad equities market and ESG-risk-based exposure

	SAI Index	Global Equities Index	Global Sustainability Index
Annualized return since inception (%)	9.3	10.6	12.6
Tracking error (%)	7.6	0	1.97
2019 return (%)	26.7	26.9	27.9
2020 return (%)	18.4	16.6	16.3
2021 return (%)	5.8	18.4	20.7
2022 return (%)	-13.1	-17.9	-18.3

Aligning for impact

The Morningstar Global Sustainable Activities Indexes' selective and relatively unconstrained nature means they will outperform in some market environments and underperform in others. Any deviation from the market portfolio will go through cycles. Returns over the backtest period show that an impact-oriented portfolio diverges far more from the market than an ESG Risk-focused investment. The fact that both have produced competitive returns undermines the criticism that investing with sustainability criteria necessarily entails a performance sacrifice.

Meanwhile, the indexes represent an important tool for impact investors. By aggregating SDG-aligned revenue to the portfolio level, the indexes provide a standard for impact investing. Investors can compare index exposure to sustainable activities with the broad equities universe and with other sustainable investments. This lets investors quantify impact in an objective, data-driven manner. The Morningstar Global Sustainable Activities Involvement Indexes allow investors to gauge impact and can also help them meet regulatory requirements.

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

For more information, visit indexes.morningstar.com, or contact us at indexes@morningstar.com

About Morningstar Sustainalytics

Morningstar Sustainalytics is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For nearly 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Morningstar Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The firm also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices, and capital projects. With 17 offices globally, Morningstar Sustainalytics has more than 1,800 staff members, including more than 800 analysts with varied multidisciplinary expertise across more than 40 industry groups.

For more information, visit www.sustainalytics.com.

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