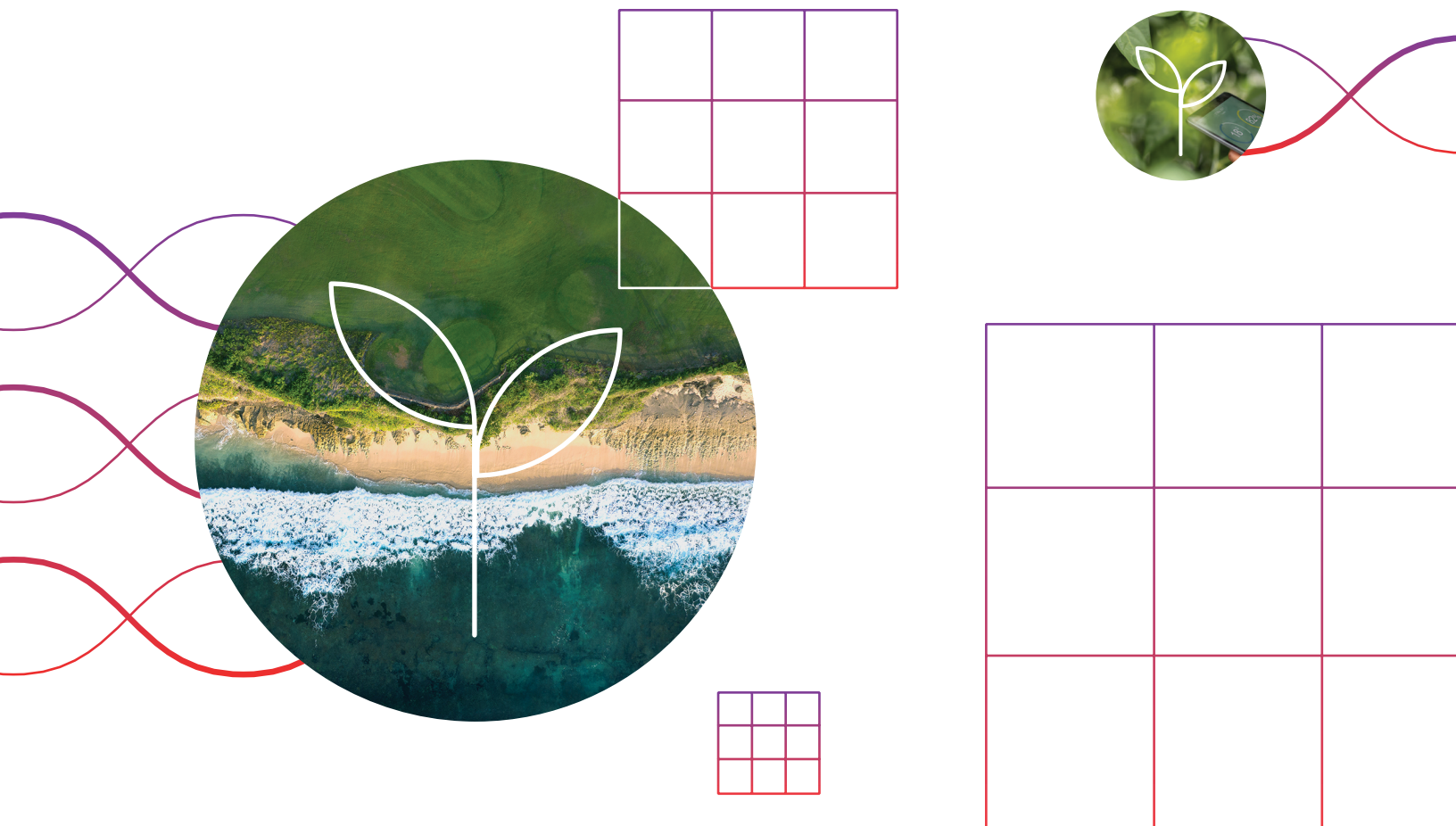


Investing sustainably, with style



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The market for equity style investments is massive. A staggering \$2 trillion of investor capital worldwide sits in mutual funds and ETFs classified by Morningstar as taking a growth approach to large-cap U.S. equities, while U.S. large-value strategies hold \$1.5 trillion. Scores of mid- and small-cap strategies also have a growth or value mandate. Meanwhile, the Morningstar database includes style-specific categories for global equity funds in Europe, Australia, and the United States, with a cumulative \$586 billion in assets as of 2022's fourth quarter. Clearly, investors across the globe like to express style-related views, whether it's a preference for fast-growing companies benefitting from secular trends or cheap stocks that can surprise on the upside.¹

Where style investing is underdeveloped, however, is on the dimension of sustainability. According to Morningstar data, open-end and exchange-traded funds that put environmental, social, and governance factors at the center of their investment process held \$2.2 trillion globally in late 2022.² But only a small cohort of sustainable equity funds have a style mandate. Style oriented sustainable investments struggle to benchmark their strategies given a scarcity of credible sustainable style benchmarks on the market.

As sustainable investing becomes increasingly mainstream across geography and investor segments, a broad range of objectives must be met. Sustainable investors need to assemble diversified portfolios across asset class and investment style. Meanwhile, active sustainable strategies with a style focus require accurate benchmarking. Not only should the impact of an investment's ESG focus be measured, but its style tilts as well.

The Morningstar® Sustainability Style IndexesSM represent broad equity market style segments while reweighting constituents of the parent index to favor companies with lower ESG risk, as measured by their Sustainalytics ESG Risk Ratings. The indexes are aligned with the Morningstar Style Box,TM an industry standard for defining investment style, and constituent weighting is driven by forward-looking assessments of the ESG-related risks most likely to impact financial results. The indexes are designed to serve a wide range of investor needs, from benchmarking to investable product creation to asset-allocation modeling.

¹ Morningstar Direct Asset Flows. U.S. data as of 2022. Global data as of September 2022.

² Global Sustainable Fund Flows; Q3 2022 in Review. Oct. 27, 2022.

How sustainable are style investments?

Measuring sustainability is tricky because of the diversity inherent to the field. From ethical screening to risk mitigation to impact, strategies that put ESG factors at the center of their process can vary in their goals and tactics. The approaches are anything but mutually exclusive. Sustainable investing is said to be “values-based, value-driven.”

For many investors, ESG issues are best understood as material financial risks. Environmental impact, labor relations, product safety, data privacy, and business ethics are factors that can affect the bottom line. Businesses today undoubtedly face rising expectations to serve a range of stakeholders.

The Sustainalytics ESG Risk Rating³ assesses firms' exposure to and management of financially material ESG risks. Key ESG issues and risk exposures vary and can be mitigated by a company's management practices. Risk ratings are absolute, not relative, and are therefore comparable across sector and industry. Roughly 13,000 companies are rated globally.

Exhibit 1: Sample Sustainalytics ESG Risk Rating

ESG Risk Rating

22.1 Medium Risk



Source: Morningstar Sustainalytics

Just as companies, industries, and sectors vary in their ESG risk, so too do investment styles. To gauge how ESG risk is spread across the style and size spectrum, it's worth viewing the Morningstar Broad Style Indexes⁴ through the lens of sustainability. The indexes reflect the opportunity set available to equity style investors by carving size segments in half—one side representing value, the other growth. Stocks that do not exhibit a clear style orientation are partially allocated to both value and growth indexes, creating some overlap in constituents. The indexes use the style box's 10-factor classification methodology, which keeps them aligned with a widely used frame of reference for style investors. When it comes to size assignments, the broad style indexes target a fixed percentage of market capitalization, as opposed to a fixed number of constituents.

For example, according to the Morningstar Style Box's methodology, the large-cap segment of the equity market represents the top 70% of equity market capitalization, as opposed to the top X number of stocks. This maintains consistency over time, as market dynamics change. The number of listed securities fluctuates, and concentration waxes and wanes.

³ For a full discussion of the Sustainalytics ESG Risk Rating Methodology see: connect.sustainalytics.com/esg-risk-ratings-methodology

⁴ For a full discussion of the Morningstar Broad Style Index Family methodology, see: indexes.morningstar.com/docs/rulebook/morningstar-us-large-mid-cap-broad-growth-FS0000GHCD

Exhibit 2: The Morningstar Broad Style Indexes use the 10-factor Style Box methodology to determine a stock's style

1. Determine a value score			2. Determine a growth score			3. Determine a style score			
Factors		Weight %	Factors		Weight %	Subtract the value score from the growth score.			
Forward-looking	Price/projected earnings	50.0	Forward-looking	Long-term projected earnings growth	50.0	Growth score	0 to 100		
Historical	Price/book	12.5	Historical	Earnings growth	12.5	Value score	0 to 100		
	Price/sales	12.5		Sales growth	12.5	Style score	-100 to 100		
	Price/cash flow	12.5		Cash flow growth	12.5				
	Dividend yield	12.5		Book value growth	12.5				

How do the broad style indexes compare when it comes to ESG risk exposure? Below are a select group of broad style indexes covering large/mid- and small caps on both the value and growth side of the market, along with their ESG risk levels. At the index (and fund) level, the Morningstar Portfolio Sustainability Score is a weighted average of Sustainalytics' company-level ESG Risk Ratings. The Portfolio Sustainability Score is rendered on a 0-100 scale, where lower scores are better.

Exhibit 3: ESG risk is higher with value and small-cap stocks

Morningstar US Market Extended Index – ESG Risk Level 21.97

Broad style index	Large-mid broad growth	Large-mid broad value	Small cap broad growth extended	Small cap broad value extended
ESG risk level	19.97	24.59	25.83	25.76

Source: Morningstar Direct. Data as of Aug. 31, 2022, for ESG Risk. Indexes used: Morningstar US Large-Mid Broad Growth, Morningstar US Large-Mid Broad Value, Morningstar US Small Broad Growth Extended, and Morningstar US Small Broad Value Extended. ESG Risk is Represented by Morningstar Portfolio Sustainability Score.

Just as companies, industries, and sectors vary in their ESG risk, so too do investment styles

As displayed above, only the large/mid broad growth index carries an ESG risk level below that of the broad U.S. equity market. The value index is riskier than the market from an ESG perspective, while the small-cap indexes on both the growth and value sides carry elevated levels of ESG-related risk.

Consider the composition of the various indexes. The technology-focused companies that dominate the growth indexes carry relatively low levels of ESG risk (think Microsoft, Nvidia, and Mastercard). The value index, for its part, is dragged down by companies in the energy, industrials, and utilities sectors, among others.

Larger companies are more transparent and better equipped to manage their ESG-related risks than their smaller counterparts. On the small-cap value side of the market are many companies facing risks related to environmental impact, health and safety for workers, and community relations. Regional banks, which are a large segment of the small-value index, tend to carry medium levels of risk related to product governance, data privacy, and ESG integration. On the growth side of the small-cap segment are many healthcare-related companies, which often carry risk related to product safety, human capital, and widening access to their therapeutics.

Globally, the same dynamics are at play as displayed below. Value stocks and small caps face more ESG risk than the overall market. Growth stocks are less risky from an ESG perspective.

Exhibit 4: Globally, value and mid-caps carry higher ESG risk than the broad equity market

Index	ESG risk level
Morningstar Global Value	23.41
Morningstar Global Mid Cap	22.43
Morningstar Global	22.00
Morningstar Global Growth	20.52

Source: Morningstar Direct. Data as of Aug. 31, 2022, for ESG Risk. Indexes used: Morningstar Global Value Target Market Exposure, Morningstar Global Mid Cap Target Market Exposure, Morningstar Global Target Market Exposure, and Morningstar Global Growth Target Market Exposure. ESG Risk is Represented by Morningstar Portfolio Sustainability Score.

A selective approach can lower ESG risk

Of course, ESG risk levels vary significantly even within styles, sectors, and industries. Yes, extractive businesses generally carry high levels of ESG risk. They produce emissions, effluence, and waste and often face challenges related to health and safety, community relations, and business ethics. But a selective approach can identify companies in the energy sector, such as Kinder Morgan, which is heavily involved in natural gas and has strong ESG management; or Eversource, a utility moving toward clean energy.

While it's true that small caps as a group are less transparent and active around ESG risk mitigation, plenty of exceptions exist

On the flip side, not all technology companies are risk-free. The tech sector must manage issues like cybersecurity, data privacy, human capital, anti-competitive practices, and corporate governance. A company like Microsoft has made enormous efforts to mitigate its ESG-related risk, committing to renewables as well as diversity and inclusion within its workforce. Many technology companies carry much higher ESG risk levels than Microsoft.

While it's true that small caps as a group are less transparent and active around ESG risk mitigation, plenty of exceptions exist lower down the market-capitalization spectrum. For example, there are 27 companies in the industrial machinery industry included in the Morningstar US Large-Mid Broad Value Index, and while some face severe ESG risks according to Sustainalytics, there are others that carry just a medium ESG risk level. One, TPI Composites, is viewed as low risk. On the small-growth side, Biohaven Pharmaceuticals carries a low level of ESG risk, while other small-growth biotechnology companies are high risk, according to Sustainalytics.

Introducing the Morningstar Sustainability Style Indexes

The Morningstar Sustainability Style Indexes are designed to deliver broad, diversified exposure to the growth and value segments of the market while significantly reducing ESG risk, as measured by Sustainalytics ESG Risk Ratings. Aligned with the Morningstar Style Box, the indexes facilitate benchmarking, portfolio assembly, and investment product creation.

The indexes' objective is to deliver meaningful reduction in ESG risk while maintaining a similar risk/return profile and low tracking error relative to traditional value/growth exposures. Use cases are two-pronged:

- As the basis of passive investment products that serve as style and size portfolio building blocks for sustainable investors.
- As benchmarks that accurately represent the opportunity set for sustainable investors across the size and style spectrum.

Global variants	
Morningstar Global Sustainability Large Cap Value Index	Morningstar Global Sustainability Mid Cap Growth Index
Morningstar Global Sustainability Large Cap Growth Index	Morningstar Global Sustainability Large-Mid Cap Value Index
Morningstar Global Sustainability Mid Cap Value Index	Morningstar Global Sustainability Large-Mid Cap Growth Index
US variants	
Morningstar US Sustainability Large Cap Broad Value Index	Morningstar US Sustainability Mid Cap Broad Growth Index
Morningstar US Sustainability Large Cap Broad Growth Index	Morningstar US Sustainability Large-Mid Cap Broad Value Index
Morningstar US Sustainability Mid Cap Broad Value Index	Morningstar US Sustainability Large-Mid Cap Broad Growth Index
	Index

Eligibility

The U.S. Sustainability Style Indexes are derived from the Morningstar Broad Style Indexes, which divide the market into a growth half and a value half. The Global Sustainability Style Indexes also split the market into halves but are derived from the Morningstar Global Style Indexes, which uses the Morningstar Target Market Exposure Indexes as a starting universe.⁵

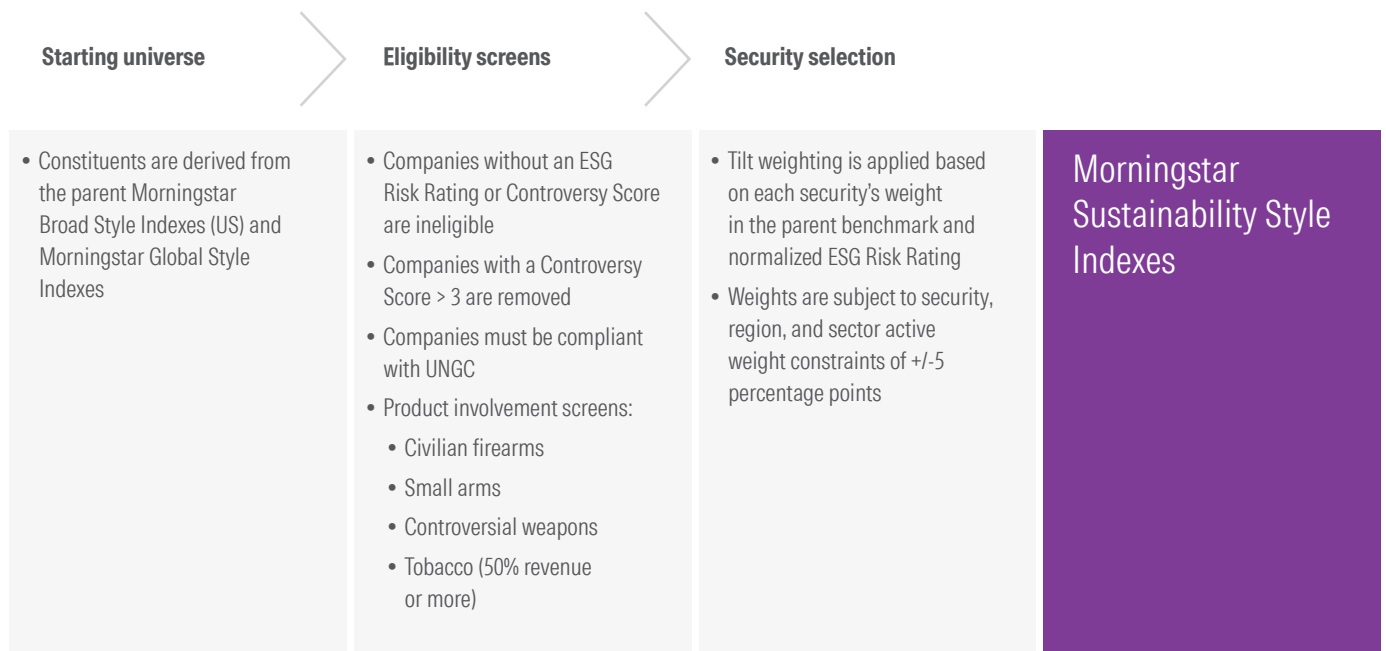
To qualify for the Sustainability Style Indexes, companies must, at the time of index reconstitution:

- be assigned an ESG Risk Score/Controversy Score;
- have a Controversy Score of 3 or less;
- comply with United Nations Global Compact; and
- avoid involvement with controversial weapons, civilian firearms, and tobacco.

Tilt weighting

Eligible constituents are weighted according to float-adjusted market capitalization, modified by ESG risk. A security with a lower (better) Sustainability ESG Risk Rating will receive a larger index weight than its market capitalization would indicate, and vice versa. Sector and regional weights are constrained to mitigate unintended biases stemming from deviation from the parent indexes.

Index construction process



⁵ This differs from the Broad Style Indexes, which use the Morningstar Global Markets Indexes as the starting universe.

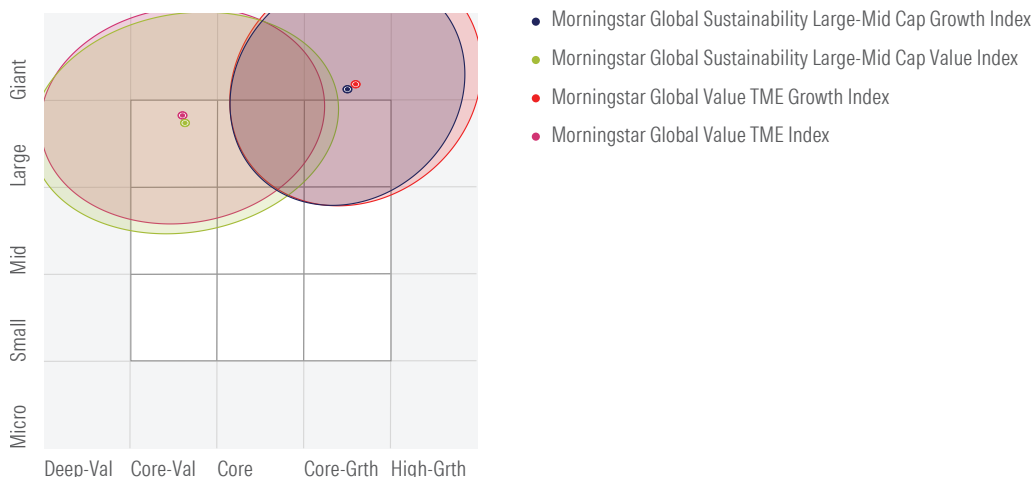
Style pure, with lower ESG Risk

The Morningstar Sustainability Style Indexes target various size and style segments with a tilt toward companies facing fewer ESG risks.

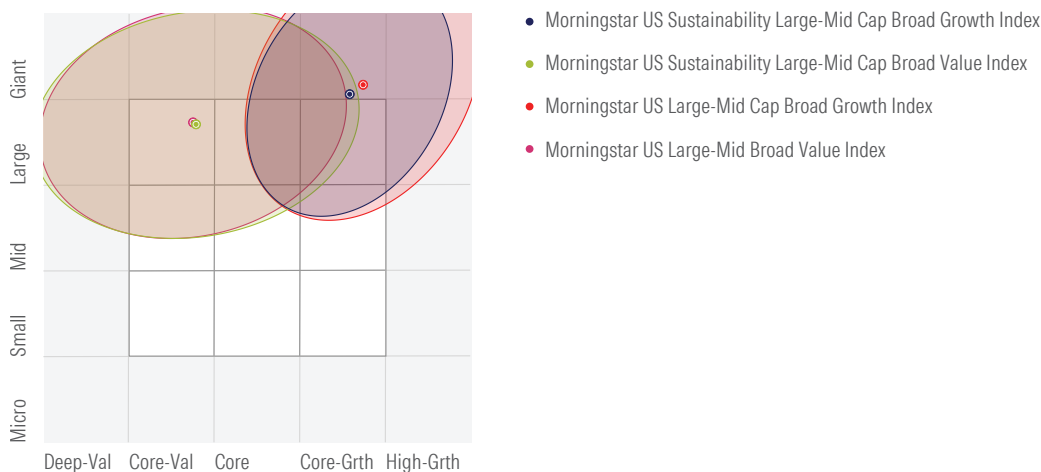
To gauge the indexes' stylistic purity, consider a comparison to their non-ESG counterparts on the Morningstar Style Box. In the four segments displayed below—U.S. large-mid broad value, U.S. large-mid broad value, Global large-mid broad growth, and Global large-mid broad value, the sustainability style indexes plot very closely to their equivalents.

Exhibit 5: The Sustainability Styles Indexes track closely to their non-ESG equivalents

Holdings-Based Style Map



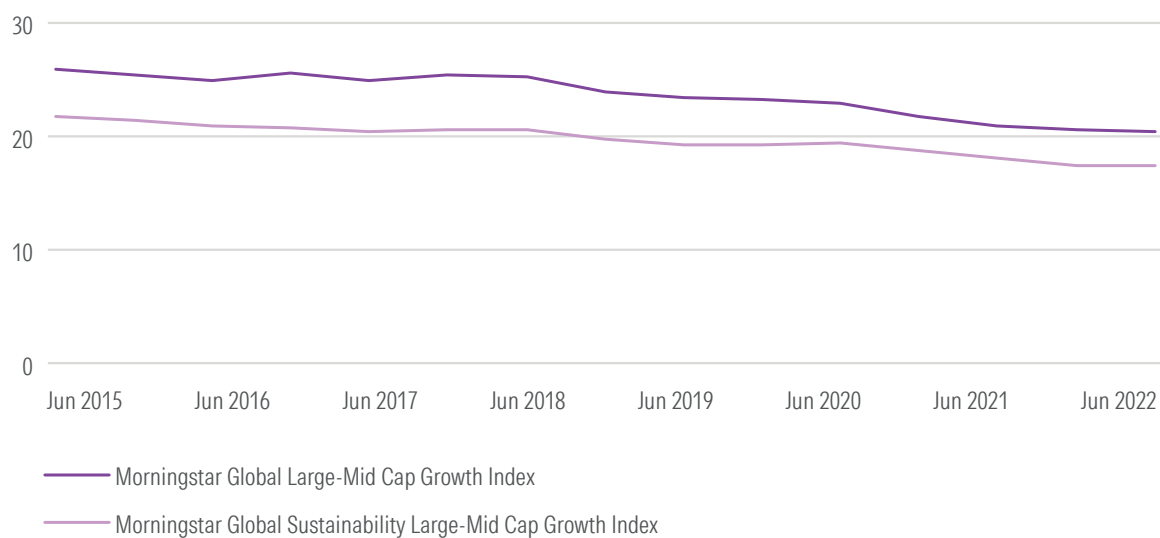
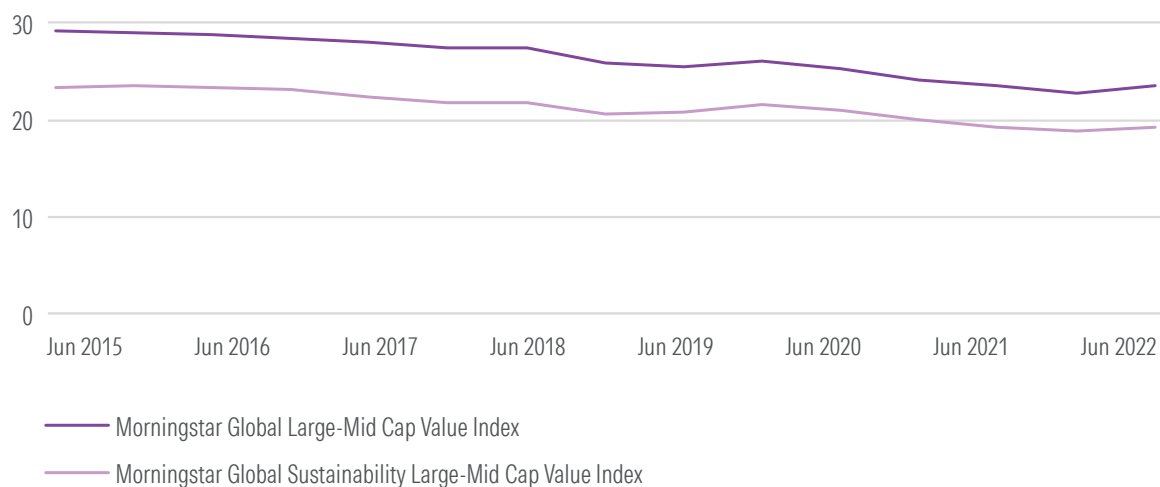
Holdings-Based Style Map



Source: Morningstar Direct. Data as of Sept. 30, 2022.

To assess how well the indexes deliver against their sustainability objective, consider a comparison with their non-ESG counterparts in terms of portfolio-level ESG risk. In the segments displayed below, the sustainability style indexes deliver substantial ESG risk improvement of at least 15% relative to their non-ESG equivalents.

Exhibit 6: The Sustainability Styles Indexes meaningfully lower ESG Risk relative to their traditional counterparts



Serving sustainable investors across the Style Box

ESG factors are becoming increasingly central to investing. Several catalysts—from regulatory initiatives, to the rise of stakeholder capitalism, to the societal impact of the pandemic—have pushed sustainable investing into the mainstream. Even traditional asset managers acknowledge that incorporating ESG risk analysis is additive to the investment process.

As the field evolves and matures, sustainable investors will need more tools for assembling diversified portfolios. Style investing has been a fixture of the investment landscape for decades, so the ability to express style preferences while also mitigating ESG risk is a fundamental need. Traditional non-ESG style methodology has historically produced below-market ESG risk for growth portfolios, but there is no guarantee that this will persist, and it also results in higher ESG risk for value, mid-, and small-cap indexes. Sustainable investors need to be intentional in their style allocations and their management of ESG risk. Also, active sustainable investors must do a better job accounting for style bias in performance measurement by using sustainable style benchmarks.

Style investing has been a fixture of the investment landscape for decades, so the ability to express style preferences while also mitigating ESG risk is a fundamental need.

The Morningstar Sustainability Style Indexes represent broad equity market segments while emphasizing companies facing fewer material ESG risks. Aligned with the Morningstar Style Box—an industry standard for defining security size and investment style—constituent weights are anchored to their weights in the parent benchmark and then tilted according to their Sustainalytics ESG Risk Ratings. As companies across the market decarbonize, commit to diversity, and improve corporate governance, sustainable investors will need an increasingly flexible array of tools that can span the entire spectrum of investment solutions. The Morningstar Sustainability Style Indexes are aligned with the ongoing evolution of sustainable investing, allowing ESG considerations to be weaved into the core of investor portfolios.

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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