

Does Investing Sustainably Mean Sacrificing Return?

Morningstar's Sustainability Indexes have posted strong returns; they also score well on volatility, quality, and financial health.

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Dan Lefkowitz
Morningstar Indexes Strategist
+312 696-6649
dan.lefkowitz@morningstar.com

When it comes to investing according to environmental, social, and governance (ESG) criteria, investors often worry about potential performance loss. In theory, any limiting of an investor's opportunity set should have negative consequences. But in practice, sustainable investments have performed well. In 2016, Morningstar's Head of Sustainability Research Jon Hale reviewed the academic literature and observed that sustainable investing involves no performance penalty. In 2017, Hale examined the returns for sustainable investments in Morningstar's database and observed a positive skew.

At the market beta level, sustainability does not appear to drag on performance either. Of the 20 equity indexes in Morningstar's Global Sustainability Index family, sixteen have beaten their non-ESG equivalent over their lifespan. It's critical to note, however, that sustainability screens will add value during some periods and subtract in others. Over the periods studied, sustainability outperformed in Europe and Asia and underperformed in the U.S. Meanwhile, the constituents of the ESG indexes have been less volatile and possessed of stronger competitive advantages and healthier balance sheets than their non-ESG equivalents.

Morningstar Sustainability Index Family: Background

Morningstar's ESG indexes are methodologically aligned with the Morningstar Sustainability Rating for funds (the "globe rating"). The indexes include best-in-class companies rated on sustainability criteria by ESG researcher Sustainalytics while maintaining broad-based market exposure.

Exhibit 1 Morningstar Global Sustainability Index Family

Broad Regional Markets	Developed Markets	Emerging Markets	Single Country
Global Markets	Developed Markets ex-U.S.	Emerging Markets	United States
Global Markets ex-U.S.	Developed Europe	Emerging Americas	Japan
Asia			United Kingdom
Asia ex-Japan			Germany
Asia Pacific			Canada
Asia Pacific ex-Japan			Australia
Europe			India
Eurozone			
Nordic			

Source: Morningstar, Inc.

Index selection relies on two key company-level inputs: ESG scores and Controversy scores. Sustainalytics researchers compare companies to their peers in one of 42 industry groups across E,S, and G pillars. Controversy scores gauge the impact of ESG-related incidents on companies and their stakeholders. It is an absolute measure.

The sustainability indexes select ESG leaders and weight them by market capitalization. They exclude companies experiencing severe controversies. They also exclude companies involved with tobacco and controversial weapons (e.g. land mines). Weights in regions and sectors are kept within two percentage points of their non-ESG benchmarks. So if technology stocks represent 11.2% of the non-ESG index's weight, for example, tech exposure must stay between 9.2% and 13.2% of ESG index weight. This is done to limit risk/return deviation from the overall market.

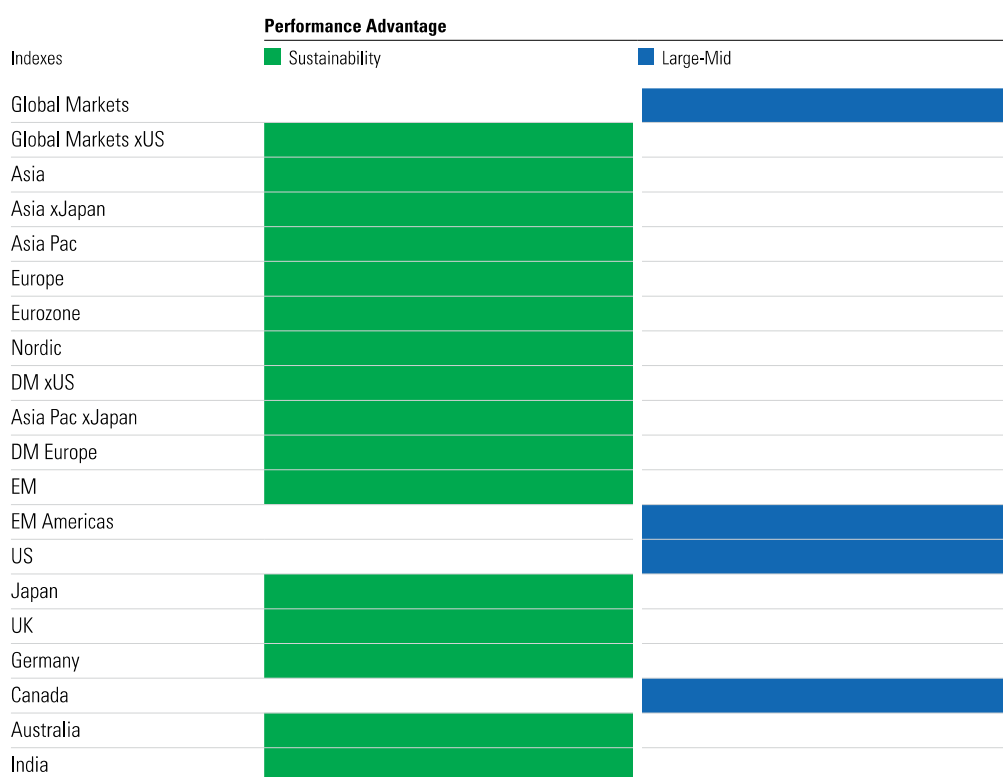
Most of the indexes have returns back-tested to December 2009 based on Sustainalytics company-level ratings. The emerging markets-focused indexes, including the broad Asia Pacific index, go back to December 2011. This study examines returns through the end of 2017.

Sustainability Index Family Results

Because Sustainalytics does not comprehensively cover smaller caps, the parent indexes for the Sustainability Index family are large and mid-cap focused. Returns are examined in US Dollar for purposes of apples to apples comparison. The indexes overlap; for example, the constituents of the US Market Index consume 50% of the Morningstar Global Markets Index weight.

As displayed below, sixteen of 20 Sustainability Indexes best their non-ESG equivalents.

Exhibit 2 Sustainability Index Family Track Record vs. Equivalent Index (Large-Mid Cap Index)



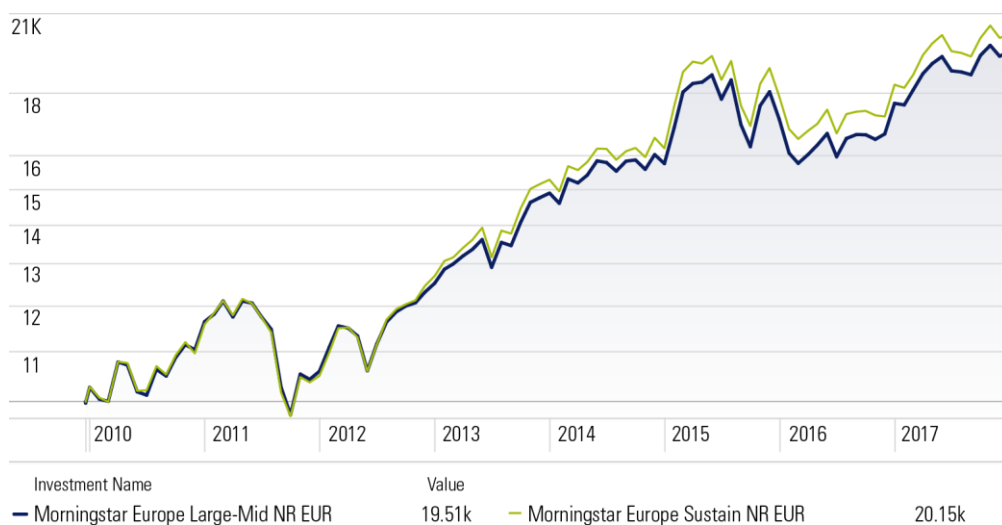
Source: Morningstar Direct. Data as of 31 December 2017.

Sustainability Outperforms in Europe and Asia, Underperforms in U.S.

By design, the members of the Morningstar Sustainability Index family track closely to their non-ESG counterparts. Performance differentials are small. Because sector weights are constrained, stock picking, as opposed to sector allocation, typically determines outperformance or underperformance.

In Europe, sustainability screens have added value over the index lifespan.

Exhibit 3 Europe Sustainability v. Europe Large-Mid

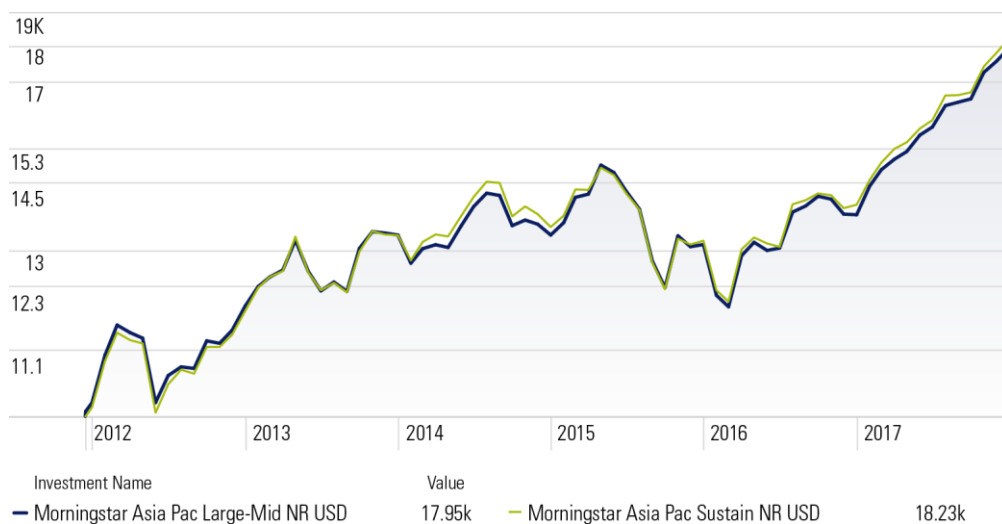


Source: Morningstar Direct. Data as of 31 December 2017.

Within financial services, overweight exposure to strong performer Allianz helped. So too did an underweight to weak performing Santander. Within communications, overweight exposure to Vodafone helped. Sector-wise, the Europe ESG index was slightly boosted by an underweight to the energy sector relative to the overall market.

Likewise in Asia, sustainability screens have added value over the time period.

Exhibit 4 Asia Sustainability v. Asia Large-Mid

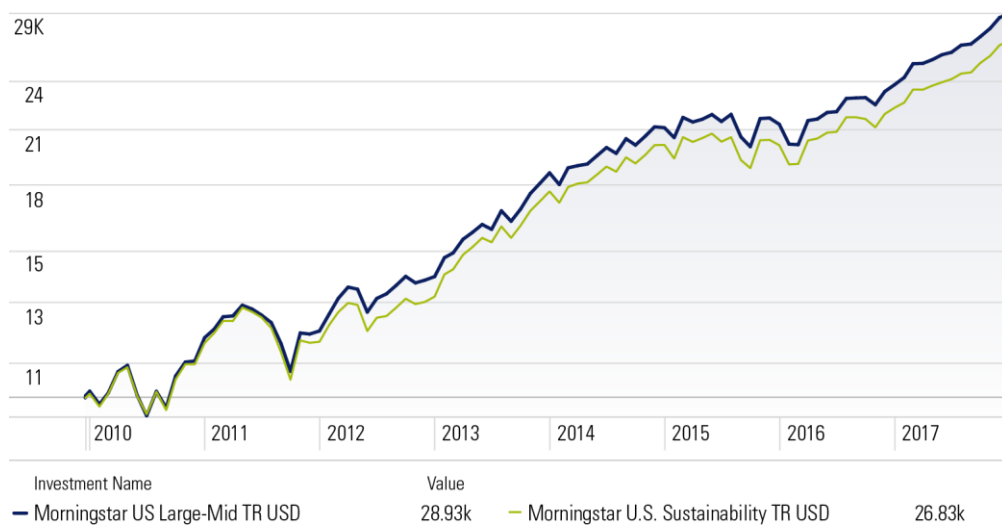


Source: Morningstar Direct. Data as of 31 December 2017.

Within the technology sector, the Asia Pacific Sustainability Index's overweight exposure to Tencent and Taiwan Semiconductor added value, among others. Within financial services, an overweight to Australian banks contributed.

In the U.S., by contrast, the ESG index has underperformed the broad market.

Exhibit 5 U.S. Sustainability v. U.S. Large-Mid



Source: Morningstar Direct. Data as of 31 December 2017.

Much of this is explained by high-flying stocks that were not found in the ESG index: Apple, Amazon, and Facebook, in addition to Berkshire Hathaway and Philip Morris. Negative stock selection overwhelmed the positive contribution from the ESG index's slight overweight to consumer cyclical stocks and

underweight to energy. Struggles in the U.S. market have also contributed to underperformance by the Global Markets Sustainability Index, while the Morningstar Global ex-US Sustainability Index has outperformed.

Sustainability Favors Less Volatile, Competitively Advantaged, Financially Healthy Companies

The members of the Morningstar Sustainability Index family tend to select companies that are less volatile and possessed of stronger competitive advantages and healthier balance sheets than their non-ESG equivalents. This analysis relies on the Morningstar Equity Risk Model, launched in 2016, which tracks stocks' exposure to 36 different factors, or sources of return. Three factors have been examined: Volatility, Economic Moat and Financial Health.

The Volatility Risk factor measures the maximum observed spread in long-term returns. Unlike standard deviation of returns, the Morningstar construction of volatility doesn't focus on the daily or monthly variance of returns, but rather on the range of possible long-term returns. Measured in this manner, we find that our Volatility factor plays an economically important and statistically significant role in the explanation of future returns.

As displayed below 19 of 20, Sustainability Indexes have higher Volatility scores, implying a lower range of possible long-term returns, than their non-ESG equivalents.

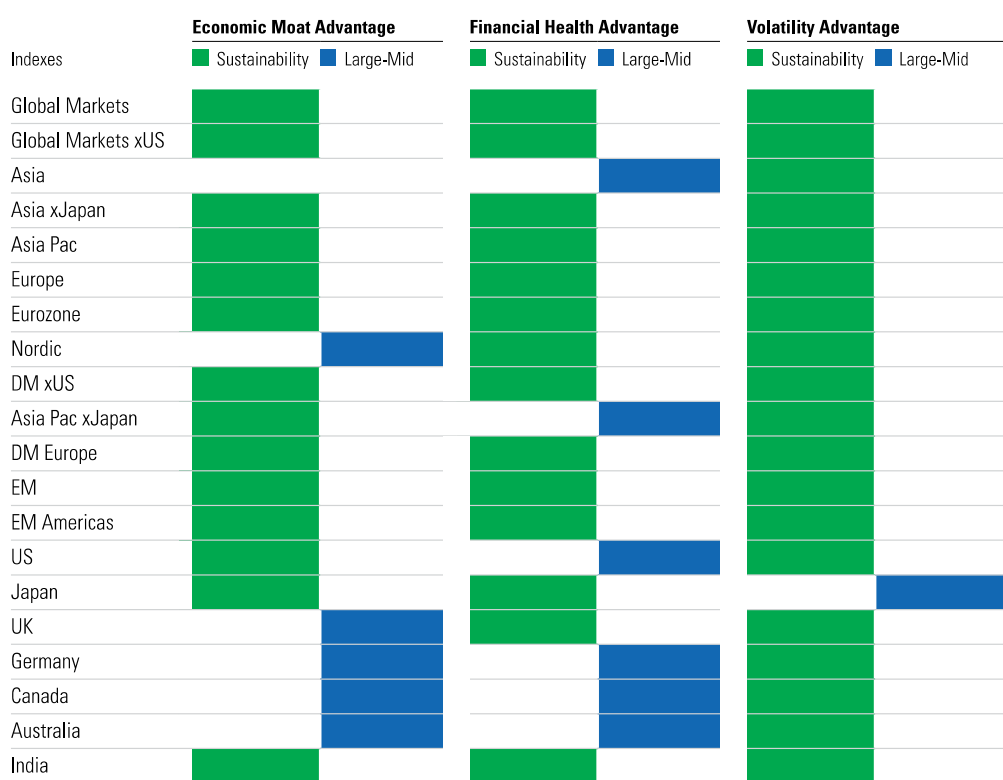
Economic moat is Morningstar's proprietary measure of quality. Morningstar equity analysts assign moat ratings to stocks that possess a sustainable competitive advantage capable of generating excess returns over time. An algorithm then extrapolates from the 1,500-stock coverage universe to assign quantitative measures of the strength and stability of competitive advantage to a universe of 45,000 stocks.

Morningstar has found that a portfolio tilted toward companies with strong moat profiles would have generated stronger returns during the 2008-2009 downturn.

As displayed below, 15 of 20 Sustainability Indexes have higher exposure to the Economic Moat factor than their non-ESG equivalents. This means their constituents tend to be more favorably positioned, their profits more insulated from competition. It should also be noted that the Sustainability Indexes tend to fall short of their non-ESG equivalents on the Economic Moat exposure in single markets, which are often quite narrow, such as India, Australia, Canada, Germany, and the U.K. The Morningstar Global Markets Sustainability Index, the ex-US Sustainability Index, and the US Sustainability Index all demonstrate higher exposure to moats than their non-ESG equivalents.

The Financial Health factor assesses the strength of a firm's financial position and ranks companies on the likelihood that they will enter financial distress. It relies on the Distance to Default measure, which considers leverage and equity volatility. Higher scores imply a lower risk of bankruptcy. Morningstar has found that a portfolio tilted toward companies with strong Financial Health Scores would have generated stronger returns during the 2008-2009 downturn.

As displayed below, 14 of 20 Sustainability Indexes have greater exposure to Financial Health than their non-ESG equivalents.

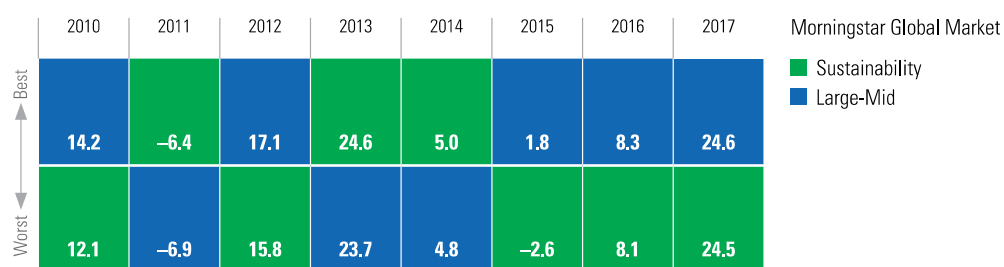
Exhibit 6 Sustainability Index Family Characteristics vs. Equivalent Index (Large-Mid Cap Index)

Source: Morningstar Direct. Data as of 31 December 2017.

Conclusion

It's likely that the biases toward Volatility, Economic Moat, and Financial Health will be more enduring than performance trends. The results of the Risk Model analysis are consistent with other Morningstar studies. Jon Hale authored a paper called "Sustainability and Quality Go Hand in Hand." Natalia Wolfstetter, a Morningstar Manager Research Director, observed that "Global Large-Cap Equity managed strategies with high Morningstar Sustainability Ratings exhibit above average exposure to Volatility, Economic Moat, and Financial Health."

Performance, for its part, is highly time-period dependent. Any strategy that differs from the market will diverge on both the upside and downside. Sustainability screens will add value in some time periods and detract during others. Consider annual returns for the Morningstar Global Markets Sustainability Index versus its non-ESG equivalent.

Exhibit 7 Periodic Table 2010-2017

Source: Morningstar Direct. Data as of 31 December 2017.

About Morningstar, Inc.

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. The company offers an extensive line of products and services for individual investors, financial advisors, asset managers, retirement plan providers and sponsors, and institutional investors in the private capital markets. Morningstar provides data and research on a wide range of investment offerings, including managed investment products, publicly listed companies, private capital markets, and real-time global market data. Morningstar also offers investment management services through its investment advisory subsidiaries, with more than \$195 billion in assets under advisement and management as of December 31, 2017. The company has operations in 27 countries.

To learn more about the Morningstar Sustainability Rating, visit:

<http://www.morningstar.com/company/sustainability>

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1 Oliver's Yard
55-71 City Road
London
EC1Y 1HQ