

A closer look at custom ESG equity indexes for ETFs

Nuveen has worked with MSCI to develop a custom equity index methodology that reflects Nuveen’s approach to investment strategies focused on environmental, social and governance (ESG) factors. Each custom index seeks to deliver the investment performance of a broad-based, conventional “parent” index by investing in a subset of securities that meet certain ESG criteria. The use of these indexes provides exposure to companies within the parent indexes that exhibit both positive ESG characteristics and lower carbon exposure, while seeking to achieve risk and return characteristics similar to those of the respective parent index.

The following analysis examines the absolute and risk-adjusted returns of these custom ESG equity indexes using standard deviation and Sharpe ratios as of 31 December 2021. We also assess tracking error and information ratios to provide further insights into how these indexes have performed and what advantages they may offer.

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THE CUSTOM ESG INDEXES AT A GLANCE

The ESG equity indexes in this analysis were created to serve as benchmarks for a range of ESG-focused equity ETF strategies. These indexes:

- are derived from specific MSCI non-ESG parent indexes
- cover a range of market caps, styles and geographies

The table in Figure 1 shows these specifics for each of the eight indexes analyzed.¹

KEY TAKEAWAYS

- Incorporating ESG criteria into the investment selection process can improve risk-adjusted returns.
- 88% of the custom ESG equity indexes evaluated outperformed their non-ESG MSCI parent indexes over the past 3- and 5-year periods.
- Measured by Sharpe and information ratios, these ESG indexes offer attractive risk-return profiles.
- The indexes have higher ESG ratings and lower carbon intensity scores than their parent indexes.
- Results for the ESG indexes validate our long-held view that aligning investors’ portfolios with their values and achieving competitive financial returns are not mutually exclusive.

Figure 1. Custom ESG index overview

U.S. ESG index	Parent index
TIAA ESG USA Large-Cap Index	MSCI USA Index
TIAA ESG USA Large-Cap Growth Index	MSCI USA Growth Index
TIAA ESG USA Large-Cap Value Index	MSCI USA Value Index
TIAA ESG USA Mid-Cap Growth Index	MSCI USA Mid-Cap Growth Index
TIAA ESG USA Mid-Cap Value Index	MSCI USA Mid-Cap Value Index
TIAA ESG USA Small-Cap Index	MSCI USA Small-Cap Index
Non-U.S. ESG index	Parent index
TIAA ESG Emerging Markets Equity Index	MSCI Emerging Markets Index
TIAA ESG International Developed Markets Equity Index	MSCI EAFE Index

In the analysis that follows, all text, data and exhibits that refer to the “ESG indexes” and/or their respective MSCI “parent indexes” are based on the fully named indexes (and their corresponding market caps, styles and geographies) shown in Figure 1.

HOW THE INDEXES ARE CONSTRUCTED

Each of the ESG indexes uses explicitly defined ESG criteria to select a subset of stocks from a starting universe of eligible companies (i.e., its MSCI parent index). The indexes:

- Favor companies that are leaders relative to their sector peers in managing relevant ESG risks and opportunities
- Exclude companies involved in severe business controversies, which may include allegations of fraud, anti-competitive practices, discrimination, and health and safety violations, among others
- Exclude companies that are moderately to highly involved in specific controversial businesses that have high potential for negative social and/or environmental impact (such as alcohol, tobacco, gambling, nuclear weapons and firearms)
- Favor carbon-efficient companies measured on both an absolute and relative basis, and exclude companies with any ownership of fossil fuel reserves.

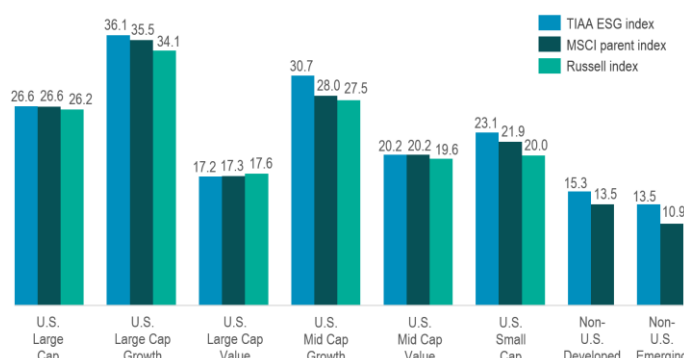
A complete description of the index methodology is available at [msci.com](https://www.msci.com).²

A RECORD OF OUTPERFORMANCE

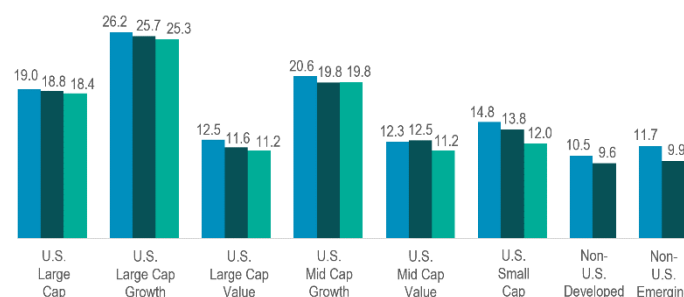
Figure 2 shows relative returns across the series of ESG indexes for the 3- and 5-year periods ended 31 December 2021. Over both time frames, 88% (seven of eight) of the custom ESG indexes outperformed their non-ESG parent indexes. The single exception over three years was the TIAA ESG USA Large-Cap Value Index; over five years, the single exception was the TIAA ESG USA Mid-Cap Value Index. Results for U.S. ESG indexes are compared against both their MSCI parent index and a comparable, widely recognized non-ESG Russell benchmark for additional context.

Figure 2. ESG indexes versus parent indexes
Annualized returns (%) by category

3 years ended 31 December 2021



5 years ended 31 December 2021



Based on weekly returns for periods ending 31 December 2021. Index returns do not reflect investment fees or transactions costs. **Past performance does not predict or guarantee future results.** Sources: FactSet, MSCI, Nuveen.

“Over 3- and 5-year time frames, 88% of the custom ESG indexes outperformed their non-ESG parent indexes.”

ATTRACTIVE RISK PROFILES

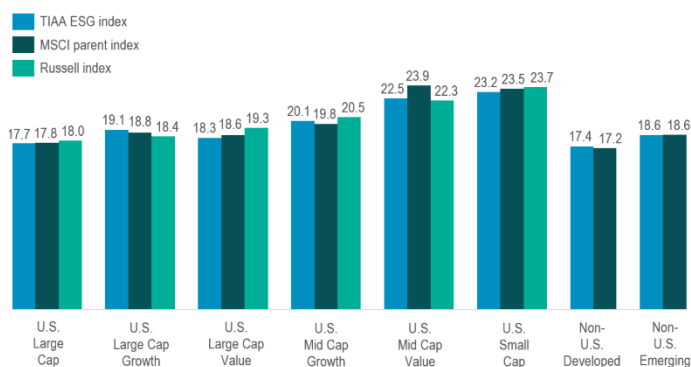
Generally lower volatility

For the most recent 3-year period, volatility as measured by standard deviation of returns was lower for a majority (five of eight) of the ESG indexes than for their respective MSCI parent indexes (Figure 3). The three exceptions were the TIAA ESG USA Large-Cap Growth Index, TIAA ESG USA Mid-Cap Growth Index and TIAA ESG International Developed Markets Equity Index. For the 5-year period, standard deviation was lower for four of the eight ESG indexes, and higher for the other four.

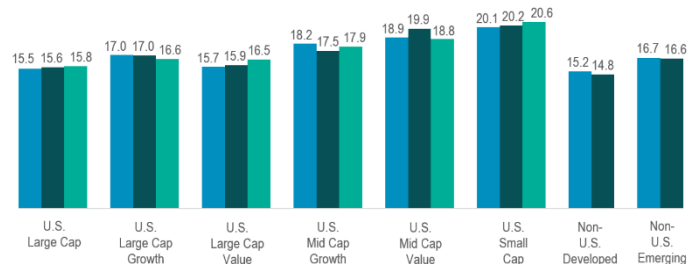
Figure 3. Less volatile performance for many of the ESG indexes

Annualized standard deviations by category

3 years ended 31 December 2021



5 years ended 31 December 2021



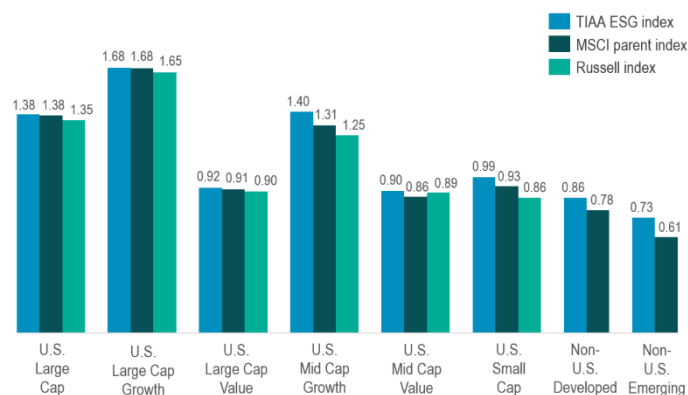
Standard deviations based on weekly returns for each index for 3- and 5-year periods ended 31 December 2021. **Past performance does not predict or guarantee future results.**
Sources: FactSet, MSCI, Nuveen.

Better risk-adjusted returns

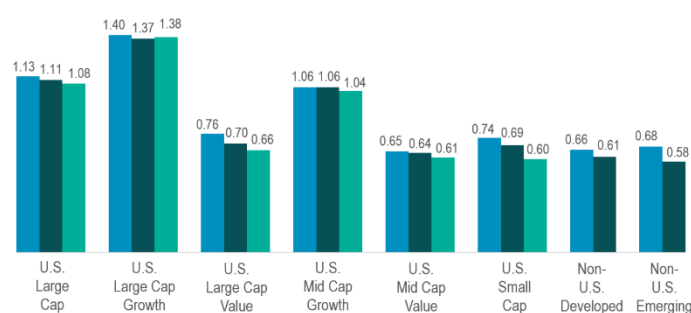
As shown in Figure 4, all eight of the ESG indexes delivered better risk-adjusted performance over three years than their MSCI parents, as measured by the Sharpe ratio (returns per unit of risk). For the 5-year time frame, Sharpe ratios for seven of the ESG indexes were higher than, and one was in line with, those of their respective parent indexes.

Figure 4. Outperformance on a risk-adjusted basis
Annualized Sharpe ratios by category

3 years ended 31 December 2021



5 years ended 31 December 2021



Sharpe ratios based on weekly returns for each index for 3- and 5-year periods ended 31 December 2021. **Past performance does not predict or guarantee future results.**
Sources: FactSet, MSCI, Nuveen.

Lower standard deviations and higher Sharpe ratios suggest that incorporating ESG criteria in investment selection can help ESG indexes deliver better risk-adjusted performance than their non-ESG counterparts.

“*The indexes favor companies that are leaders relative to their sector peers in managing relevant ESG risks and opportunities.*”

SUPERIOR ESG AND CARBON INTENSITY SCORES

Not surprisingly, but worth noting, is that the ESG indexes have higher ESG quality scores and significantly lower carbon intensities than their respective parent indexes, as shown in Figure 5.

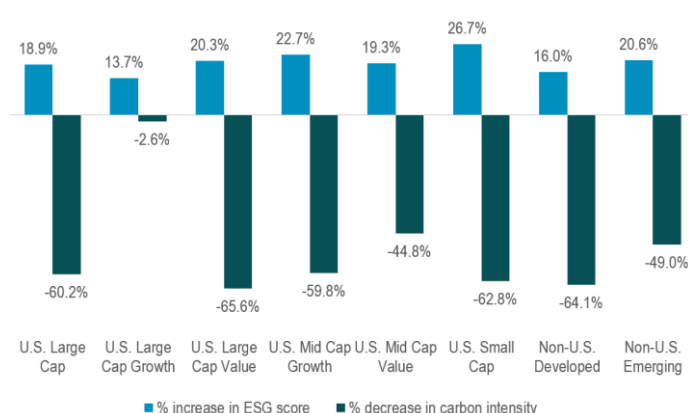
One exception is the TIAA ESG USA Large-Cap Growth Index, which provided only modest improvement in carbon intensity versus its parent index. U.S. large-cap growth stocks are already relatively carbon efficient compared to other equity market segments, which makes substantial improvements difficult to achieve.

ESG quality scores are based on MSCI ESG research and measure the ability of companies to manage key medium- to long-term risks and opportunities arising from ESG factors. At the index level, this score is calculated as the weighted average of the ESG scores for the underlying constituent companies.

Carbon intensity is measured in tons of carbon dioxide emissions per million dollars in sales (CO₂/\$M). Companies with higher carbon intensity scores are likely exposed to greater carbon-related market and regulatory risks, while the opposite is true for companies with lower carbon intensity scores. The weighted average of individual scores provides an index-level score that can be used to compare the carbon intensity of each ESG index relative to its respective parent index.

Figure 5. Higher ESG quality scores, lower carbon intensity

% difference versus respective parent indexes



Sources: MSCI, Nuveen as of 31 December 2021. Past performance does not predict or guarantee future results.

REASONABLE LEVELS OF TRACKING ERROR

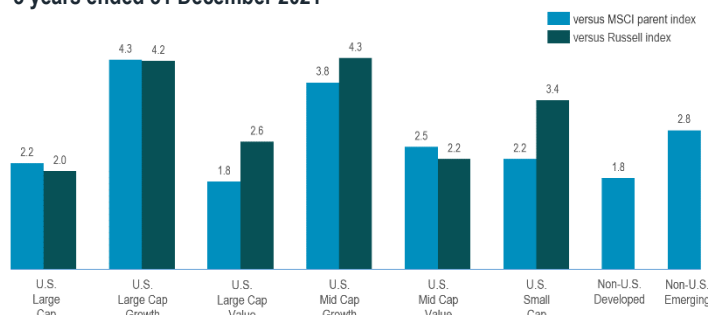
Short-term differences in performance and/or risk characteristics between an ESG index and its non-ESG parent are to be expected due to the effect of selection based on ESG and carbon criteria in constructing the ESG indexes. Moreover, these differences are desirable to the extent that they add value in the form of higher risk-adjusted returns and lower volatility, as we have already shown.

However, in order for an ESG index to serve as an appropriate benchmark for a passively managed ESG strategy, the magnitude of variation it displays relative to its parent index should be incremental rather than dramatic. Frequently erratic or extreme divergence could lead to inconsistent and unpredictable results over the short and long term, undermining the purpose of the ESG index.

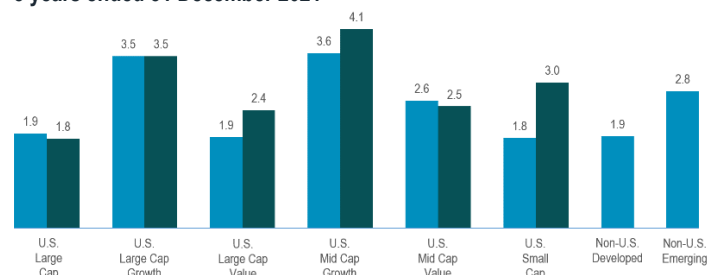
For these reasons, we included the measurement of tracking error in our analysis to quantify the degree to which the ESG indexes deviate from their respective non-ESG parent indexes. Most of the ESG indexes exhibited modest tracking error, indicating that their performance and risk characteristics were a close match to those of their parent indexes. (See Figure 6).

Figure 6. Tracking error of ESG indexes vs. parent indexes: adding value without excessive divergence
Annualized tracking error across the ESG indexes

3 years ended 31 December 2021



5 years ended 31 December 2021



Tracking error based on weekly returns for each index for 3- and 5-year periods ended 31 December 2021. Past performance does not predict or guarantee future results. Sources: FactSet, MSCI, Nuveen.

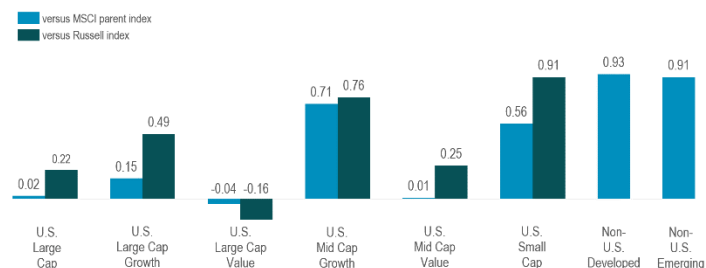
POSITIVE INFORMATION RATIOS IN ALMOST ALL CASES

The final metric in our analysis is the information ratio, which represents the benefit generated by tracking error. For our purposes, the information ratio measures the active return (percentage gain or loss) of an ESG index compared to the return of its parent index, divided by the volatility of the active return (i.e., tracking error).

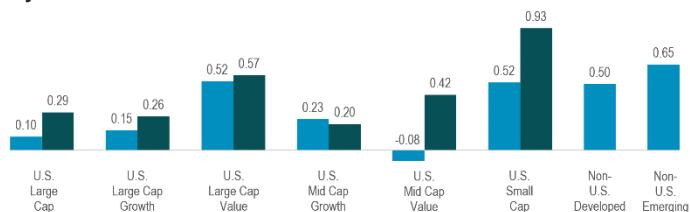
A positive information ratio for an ESG index shows it added value relative to its parent index; the higher the ratio, the more value added. As shown in Figure 7, the ESG indexes had information ratios for the 3-year period ranging from -0.04 to 0.93, and for the 5-year period ranging from -0.08 to 0.65. Information ratios relative to comparable Russell indexes were also broadly favorable: positive for all six ESG indexes with a Russell counterpart over five years, and for five of six ESG indexes over three years.

Figure 7. Information ratios: measuring the benefit of tracking error
ESG indexes relative to respective parent indexes

3 years ended 31 December 2021



5 years ended 31 December 2021



Information ratios based on weekly returns for each index for 3- and 5-year periods ended 31 December 2021. **Past performance does not predict or guarantee future results.**
Sources: FactSet, MSCI, Nuveen.

“Incorporating ESG criteria can help drive better risk-adjusted performance as measured by Sharpe ratios and standard deviation.”

CONCLUSION

- Nearly all of the ESG equity indexes we analyzed displayed long-term outperformance relative to their parent indexes while pursuing social and environmental outcomes.
- Incorporating ESG criteria can help drive better risk-adjusted performance, as measured by Sharpe ratios and standard deviation.
- Developing a thoughtful, rules-based index methodology can lead to more effective strategies and improved security selection in certain markets.

For more information, please visit us at nuveen.com.

Endnotes

- 1 In addition to the eight custom ESG indexes analyzed here, a ninth, the TIAA ESG USA High Dividend Yield Index, was introduced on 27 September 2021, precluding it from being part of the analysis for the time periods covered in this piece.
- 2 https://www.msci.com/eqb/methodology/meth_docs/TIAA_ESG_Indexes_Methodology_Mar2019.pdf.

The performance data and risk characteristics in this analysis are from custom indexes that are owned and calculated by MSCI, based on MSCI parent indexes. MSCI Inc. does not make any representation regarding the advisability of investing in strategies that use the custom indexes as benchmarks.

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