

RESEARCH

Investing in Small Caps: Smart Implementation, Big Benefits

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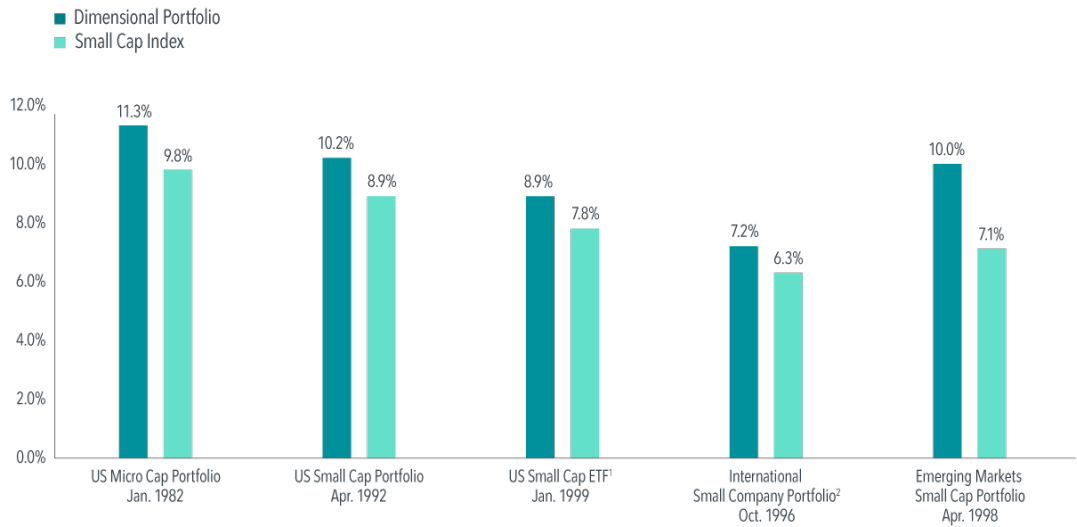
For many investors, a broadly diversified market portfolio serves as a strong foundation for an equity allocation. Small cap stocks are an important component of the total market, enhancing diversification beyond large caps only. However, effective implementation is crucial in capturing the returns of this often less-liquid part of the market.

Dimensional has decades of expertise managing small cap portfolios. A key principle of Dimensional's approach is flexibility. A flexible investment process allows for consistent asset class exposure, an ongoing focus on higher expected returns, and effective management of trading costs. This approach contrasts sharply with indexing, which prioritizes matching an index over implementation flexibility.

Dimensional applies these principles to small cap portfolios globally. **Exhibit 1** shows the outperformance over benchmarks of several Dimensional small cap mutual funds and ETFs since their respective inception dates. All have live track records of over 25 years.

Exhibit 1 Dimensional Small Cap Outperformance Across Regions

Annualized return since portfolio's first full month, net of fees, as of June 30, 2025



Performance data shown represents past performance and is no guarantee of future results. Current performance may be higher or lower than the performance shown. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. To obtain performance data current to the most recent month-end, visit dimensional.com.

The portfolios shown are Dimensional's small cap ETF and Dimensional's US, developed ex US, and emerging markets small cap mutual fund portfolios. Dimensional also manages small cap portfolios focused on other regions, small cap value portfolios, small cap growth portfolios, small cap value ETFs and international small cap ETFs, which are not included above.

See "Appendix" to learn how to obtain complete information on performance, investment objectives, risks, advisory fees, and expenses of Dimensional's funds.

US Micro Cap: US Micro Cap Portfolio against Russell 2000 Index since January 1982. US Small Cap: US Small Cap Portfolio against Russell 2000 Index* since April 1992. US Small ETF: US Small Cap ETF against Russell 2000 Index* since January 1999. International Small Cap: International Small Company Portfolio against MSCI World ex USA Small Cap Index (net div.)³ since October 1996. Emerging Markets Small Cap: Emerging Markets Small Cap Portfolio against MSCI Emerging Markets Small Cap Index (net div.) since April 1998.*

** Prospectus benchmark.*

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PURSUING HIGHER EXPECTED RETURNS

Academic research points to a size premium—higher expected returns for smaller cap stocks compared to larger cap stocks. Research also suggests that not all small cap stocks are likely to contribute to this premium. For example, small stocks with high relative prices and low profitability have lower expected returns compared to the broader small cap universe. Similarly, small stocks with high investment—measured by very high levels of asset growth—tend to underperform. This group may include, for example, firms with high year-over-year increases in debt issuance, equity issuance, or retained earnings. **Exhibit 2** highlights the historical underperformance of these segments of the small cap market across different regions, compared to small cap indices that omit them.

Exhibit 2

Underperformance of Small Low Profitability and Small High Asset Growth Stocks



Past performance, including hypothetical performance, is no guarantee of future results.

In USD. Growth of wealth shows the growth of a hypothetical investment of \$1 in the securities in each of the Dimensional indices. Performance includes reinvestment of dividends and capital gains. Dimensional small cap indices: US Small Cap Index, International Small Cap Index, Emerging Markets Small Cap Index. Dimensional small cap growth low profitability indices: US Small Cap Growth Low Profitability Index, International Small Cap Growth Low Profitability Index, Emerging Markets Small Cap Growth Low Profitability Index. Dimensional small high asset growth indices: US Small High Asset Growth Index, International Small High Asset Growth Index, Emerging Markets Small High Asset Growth Index. The Dimensional indices represent academic concepts that may be used in portfolio construction and are not available for direct investment or for use as a benchmark. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment. Actual returns may be lower. See "Index Descriptions" in the appendix for descriptions of Dimensional index data.

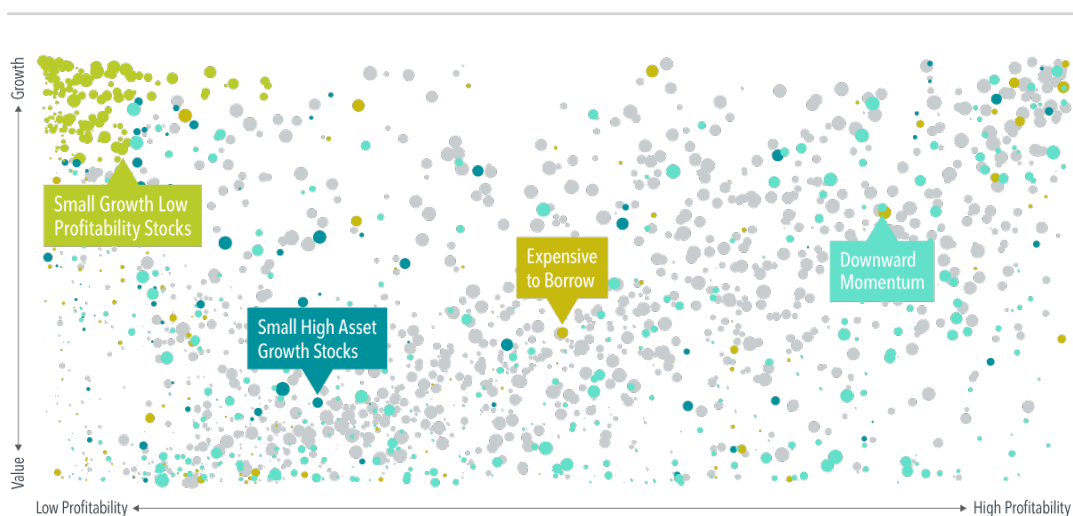
Dimensional aims to improve returns of its small cap strategies by systematically avoiding small cap growth low profitability stocks and small high asset growth stocks. Together, these exclusions currently represent roughly 10% of the eligible small cap market, with the exact range varying across regions. Even after omitting these segments of the market with lower expected returns, Dimensional small cap strategies maintain broad, security-level diversification. As of December 31, 2024, Dimensional's US Small Cap Portfolio held 1,948 stocks, comparable to the Russell 2000 Index's 1,958 holdings.

While the portfolio held a similar number of stocks as the benchmark, it had superior profitability characteristics. As of December 31, 2024, the portfolio's weighted average profitability was 0.26 versus the benchmark's 0.15.³ Notably, approximately 25.6% of the benchmark's weight was in negative-earnings stocks, compared to just 8.6% in the portfolio.

As another layer to enhance returns, Dimensional considers research on shorter-term return drivers in its investment process. One example is momentum. Studies show that, in the short term, underperforming stocks tend to continue to underperform, and outperforming stocks tend to continue to outperform. Consequently, Dimensional portfolios seek to delay buying names with downward momentum and to delay selling names with upward momentum. The opposite pattern tends to be true for stocks over the very short run, such as the last several days. Given this, Dimensional also incorporates research on these short-run reversals into its buy and sell decisions. In a similar manner, Dimensional leverages its research on securities-lending markets, which reveals that small cap stocks that are expensive to borrow tend to underperform over shorter horizons.

A flexible daily process is instrumental in capitalizing on these insights. **Exhibit 3** shows a snapshot of the US small cap universe, where circles represent individual stocks sized by market capitalization. Colored circles highlight stocks with lower expected returns—green and teal for small growth low profitability stocks and small high asset growth stocks, light blue for downward momentum, and gold for expensive-to-borrow stocks. Dimensional portfolio managers seek to limit buying these stocks while still having numerous potential small cap stock candidates on any given day. This flexibility extends to other intraday considerations that can affect stock prices, such as fluctuations in liquidity, announcements of corporate actions, and news events.

Exhibit 3 US Small Cap Universe



For illustrative purposes only. Companies are plotted on price-to-book (vertical axis) and profitability (horizontal axis), and the size of the dots is proportional to companies' market capitalization. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Low Profitability Exclusion refers to companies with the lowest profitability and highest price-to-book. High Asset Growth Exclusion refers to companies with high asset growth. Securities Lending Exclusion refers to companies with high securities lending fees. Downward Momentum refers to companies exhibiting downward momentum, which is the tendency of companies with recent relative underperformance to continue to underperform over the short term. Companies identified as belonging to multiple groups are included on the chart in the first applicable group shown.

By contrast, index funds aim to match the performance of their benchmarks, which can introduce constraints in the investment process. Index funds typically rebalance only when the index is reconstituted, often just once or twice per year, and otherwise keep holdings largely unchanged. This approach helps to minimize tracking error versus the benchmark but does not consider current information in markets that matter for returns and for maintaining consistent asset class exposure.

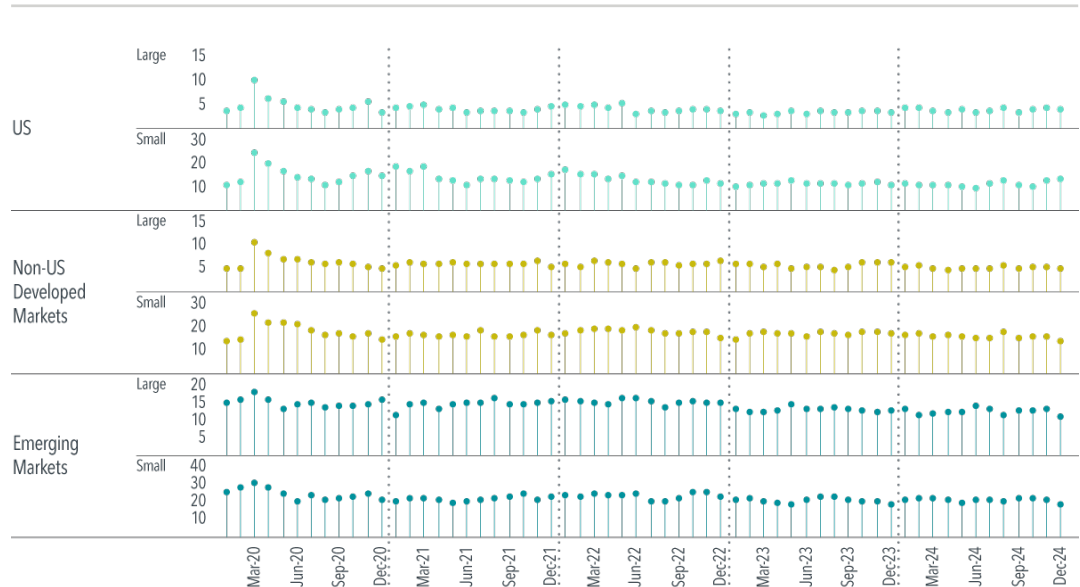
LEVERAGING FLEXIBILITY TO CONTROL TRADING COSTS

Small cap investing comes with trading challenges. In markets around the world, small caps tend to be more thinly traded than large caps, which can lead to higher trading costs and create a drag on investment performance. This is especially true when trading volumes exceed typical levels or when immediate execution is demanded. During index reconstitutions, multiple indexers often trade stocks that are being added or deleted, creating concentrated volume that may elevate trading costs and thus reduce realized returns.⁴

Dimensional portfolio managers instead aim to spread out turnover over time and across many eligible order candidates. Traders seek to participate in available liquidity rather than trade with urgency or demand unusual liquidity from the market. Compared to an approach that demands immediate execution, Dimensional has been able to buy and sell US small cap stocks at an average price advantage of greater than 10 basis points (bps) from 2020 to 2024, with similar outcomes in other developed and emerging markets (see **Exhibit 4**). Notably, these advantages have benefited small and large caps in all periods

but have been largest among small caps, where liquidity is lower and potential costs higher.

Exhibit 4
Relative Price
Advantages of Flexible
Trading



Past performance, including hypothetical performance, is no guarantee of future results.

Price advantages estimated relative to demanding immediacy, represented by an approach that sells at the bid and buys at the offer (SBBO).

Monthly average price advantages over SBBO in basis points (bps). Source: Dimensional. Small cap is defined as approximately the bottom 8% of market cap within the US, bottom 12.5% of market cap within each non-US developed market country, and bottom 15% of market cap within each emerging market country. Small cap stocks with the lowest profitability and lowest book-to-market ratios are excluded. For more information and a description of the methodology used, see Jerry Liu and Ryan J. Wiley, “Global Trading Price Advantages of Flexible Equity Portfolios” research paper, Dimensional Fund Advisors, June 2021.

With Dimensional’s expansion into the world of active ETFs, the same flexible daily process was translated to the daily basket generation process. In equity ETFs, most transactions occur through the in-kind movement of securities, with the ETF issuer defining the lists of securities and share quantities moved each day—known as baskets. Each trading day, Dimensional constructs baskets that are customized for creations versus redemptions and for individual portfolios. To determine an effective basket composition, Dimensional factors in considerations such as market movements, other trading activity, and in-kind flows. In some cases, Dimensional may include cash in the basket, opting to have Dimensional traders execute a portion of the trading activity on market, for example, for more thinly traded micro cap stocks.

A PROVEN APPROACH TO SMALL CAP INVESTING

Small cap stocks present a compelling opportunity for investors seeking higher expected returns and portfolio diversification. However, investing in this asset class requires thoughtful implementation. Dimensional's approach—built on diversification, emphasizing higher expected returns, and flexible portfolio management and trading—is designed to capture the potential benefits of small cap investing while minimizing costs. Dimensional believes that by avoiding underperforming segments of the small cap market and allowing for flexibility in implementation, this approach offers a superior alternative to indexing.

Appendix

Annualized returns as of
June 30, 2025

Portfolio	Symbol	1 Year	5 Years	10 Years	Gross Expense Ratio ⁵	Net Expense Ratio ⁵
US Micro Cap Portfolio	DFSCX	7.41%	15.05%	8.23%	0.41%	0.41%
US Small Cap Portfolio ⁶	DFSTX	7.79%	14.36%	8.18%	0.28%	0.27%
US Small Cap ETF (Net Asset Value) ¹	DFAS	7.12%	13.71%	7.91%	0.27%	0.27%
US Small Cap ETF (Market Price) ¹	DFAS	7.11%	13.72%	7.91%	0.27%	0.27%
US Small Cap ETF (After Taxes on Distributions) ¹	DFAS	6.78%	13.30%	7.24%	0.27%	0.27%
US Small Cap ETF (After Taxes on Distributions and Sale of Fund Shares) ¹	DFAS	4.31%	10.95%	6.23%	0.27%	0.27%
International Small Company Portfolio ⁶	DFISX	23.81%	12.36%	7.28%	0.39%	0.39%
Emerging Markets Small Cap Portfolio ⁷	DEMSX	11.57%	11.84%	6.42%	0.81%	0.61%

Performance data shown represents past performance and is no guarantee of future results. Current performance may be higher or lower than the performance shown. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. To obtain performance data current to the most recent month-end, visit dimensional.com.

1. Prior to listing on June 14, 2021, the ETF operated as a mutual fund. The NAVs of the predecessor mutual fund are used to compute performance from inception to listing.
2. The benchmark changed on January 1, 1999, from MSCI All Country World ex USA Small Cap Index (net dividends) to MSCI World ex USA Small Cap Index (net dividends).
3. Profitability is defined as operating income before depreciation and amortization minus interest expense scaled by book value. Earnings are defined as 12-month trailing earnings per share.
4. Kaitlin Hendrix, Jerry Liu, and Trey Roberts, "Measuring the Costs of Index Reconstitution: A 10-Year Perspective," (research paper, Dimensional Fund Advisors, September 17, 2024).
5. Fee and expense information is as of the prospectus dated February 28, 2025.
6. The Portfolio has entered into fee waiver and/or expense assumption arrangements with the Advisor. In these cases, the Advisor has contractually agreed, under certain circumstances, to waive certain fees and/or assume certain expenses of the Portfolio. The fee waiver will remain in effect through February 28, 2026, and may only be terminated by the Portfolio's Board of Directors/Trustees prior to that date. The net expense ratio reflects the gross expense ratio of the Portfolio after taking into account any such fee waiver and/or expense assumption arrangements. The gross expense ratio reflects the Total Annual Fund Operating Expenses as disclosed in the prospectus. Please read the Portfolio's prospectus for details and more information.
7. The Advisor has agreed to permanently waive all or a portion of the Portfolio's management fee to the extent necessary to limit the total management fees paid to the Advisor by the Portfolio, including the fees the Portfolio pays to the Advisor indirectly through its investment in other funds managed by the Advisor (excluding investments in affiliated cash management vehicles).

Standardized performance and complete information on investment objectives, risks, advisory fees, and expenses of Dimensional's funds are available here: <https://www.dimensionalfundadvisors.com/us-en/funds/?ac=equity&f=us%2Cemerging%2Csmall%2Cblend> and <https://www.dimensionalfundadvisors.com/us-en/funds/?ac=equity&s=DFISX>

INDEX DESCRIPTIONS

Dimensional US Small Cap Index was created by Dimensional in March 2007 and is compiled by Dimensional. It represents a market-capitalization-weighted index of securities of the smallest US companies whose market capitalization falls in the lowest 8% of the total market capitalization of the eligible market. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies. From January 1975 to the present, the index excludes companies with the lowest profitability and highest relative price within the small cap universe. The index also excludes those companies with the highest asset growth within the small cap universe. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. Source: CRSP and Compustat. The index monthly returns are computed as the simple average of the monthly returns of 12 subindices, each one reconstituted once a year at the end of a different month of the year. The calculation methodology for the Dimensional US Small Cap Index was amended on January 1, 2014, to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

Dimensional International Small Cap Index was created by Dimensional in April 2008 and is compiled by Dimensional. July 1981–December 1993: It includes non-US developed securities in the bottom 10% of market capitalization in each eligible country. All securities are market capitalization weighted. Each country is capped at 50%. Rebalanced semiannually. January 1994–present: Market-capitalization-weighted index of small company securities in the eligible markets, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four subindices, each one reconstituted once a year at the end of a different quarter of the year. Prior to July 1981, the index is 50% UK and 50% Japan. The calculation methodology for the Dimensional International Small Cap Index was amended on January 1, 2014, to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

Dimensional Emerging Markets Small Index was created by Dimensional in April 2008 and is compiled by Dimensional. January 1989–December 1993: Fama/French Emerging Markets Small Cap Index. January 1994–present: Dimensional Emerging Markets Small Cap Index composition: Market-capitalization-weighted index of small company securities in the eligible markets, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is measured as operating income before depreciation and amortization

minus interest expense scaled by book. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four subindices, each one reconstituted once a year at the end of a different quarter of the year. Source: Bloomberg. The calculation methodology for the Dimensional Emerging Markets Small Cap Index was amended on January 1, 2014, to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

Dimensional US Small Cap Growth Low Profitability Index was created in February 2016 and is compiled by Dimensional. January 1975–present: Consists of small cap securities in the eligible markets with the lowest profitability and highest relative price within their country's small cap universe, after the exclusion of utilities and companies with either negative or missing relative price data. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies. Source: CRSP and Compustat. The index monthly returns are computed as the simple average of the monthly returns of 12 subindices, each one reconstituted once a year at the end of each month of the year.

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Dimensional Emerging Markets Small Cap Growth Low Profitability Index was created by Dimensional in April 2019 and is compiled by Dimensional. January 1994–present: Consists of small cap securities in the eligible markets with the lowest profitability and highest relative price within their country's small cap universe, after the exclusion of utilities and companies with either negative or missing relative price data. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. The index monthly returns are computed as the simple average of the monthly returns of four subindices, each one reconstituted once a year at the end of each quarter of the year. Countries currently included are Brazil, Chile, China, Colombia, Czech Republic, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, South Africa, South Korea, Taiwan, Thailand, and Turkey. Exclusions: REITs and investment companies. Source: Bloomberg.

Dimensional US Small High Asset Growth Index was created by Dimensional in December 2019 and is compiled by Dimensional. January 1975–present: Consists of small cap securities in the eligible markets with the highest asset growth within their country's small cap universe. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Source: CRSP and Compustat. The index monthly returns are computed as the simple average of the monthly returns of 12 subindices, each one reconstituted once a year at the end of each month of the year.

Dimensional International Small High Asset Growth Index was created by Dimensional in November 2019 and is compiled by Dimensional. January 1990–present: Consists of small cap securities in the eligible markets with the highest asset growth within their country's small cap universe. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four subindices, each one reconstituted once a year at the end of each quarter of the year. Countries currently included are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland, and United Kingdom. Exclusions: REITs and investment companies. Source: Bloomberg.

Dimensional Emerging Markets Small High Asset Growth Index was created by Dimensional in November 2019 and is compiled by Dimensional. January 1990–present: Consists of small cap securities in the eligible markets with the highest asset growth within their country's small cap universe. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four subindices, each one reconstituted once a year at the end of each quarter of the year. Countries currently included are Argentina, Brazil, Chile, China, Colombia, Czech Republic, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, South Africa, South Korea, Taiwan, Thailand, and Turkey. Exclusions: REITs and investment companies. Source: Bloomberg.

The Dimensional indices have been retrospectively calculated by Dimensional Fund Advisors LP and did not exist prior to their index inception dates. Accordingly, results shown during the periods prior to each index's inception date do not represent actual returns of the index. Other periods selected may have different results, including losses. Backtested index performance is hypothetical and is provided for informational purposes only to indicate historical performance had the index been calculated over the relevant time periods.

Backtested performance results assume the reinvestment of dividends and capital gains.

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