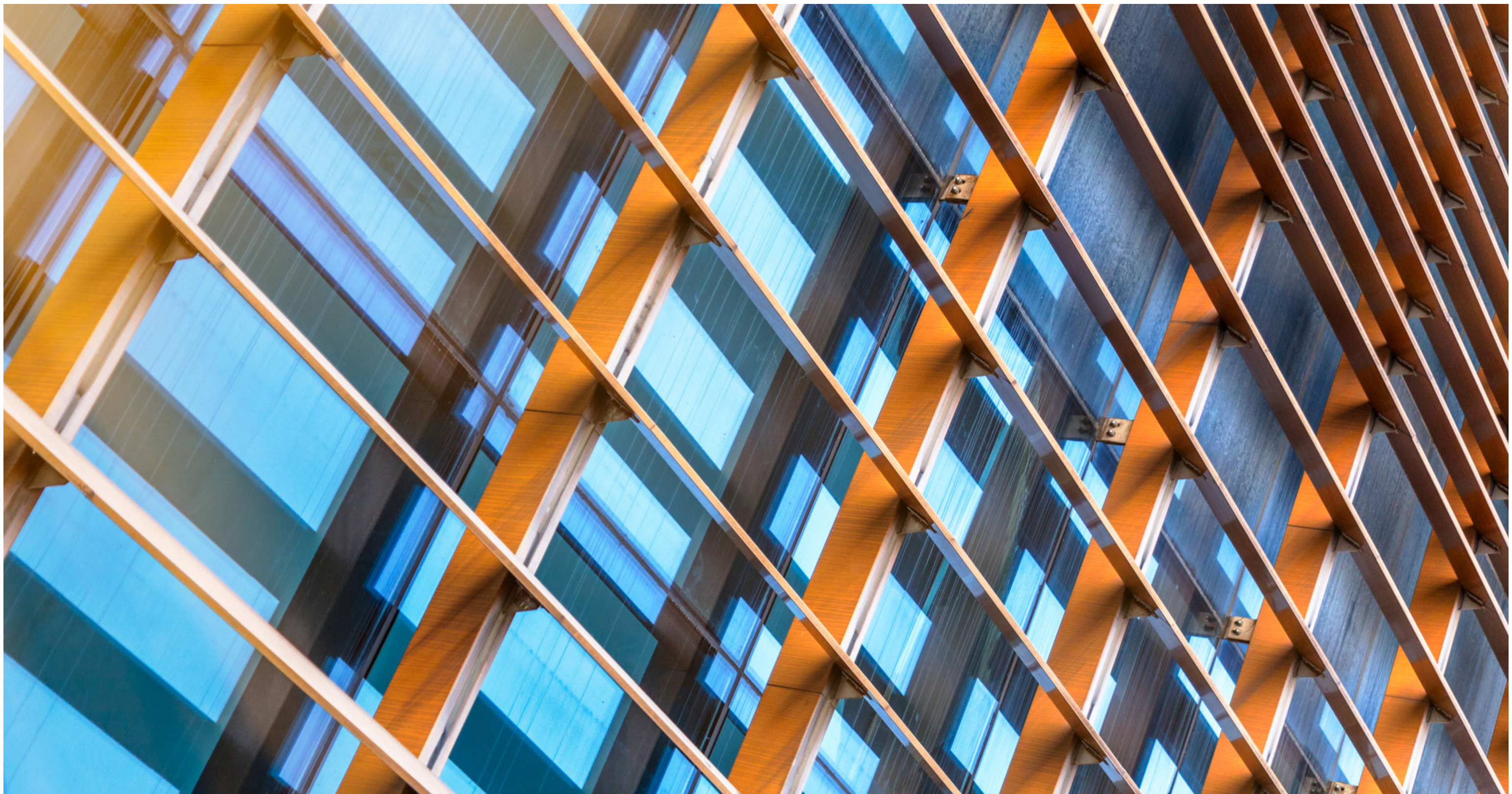


International Small Caps: A Strategic Asset Class

ARTISAN PARTNERS Insights

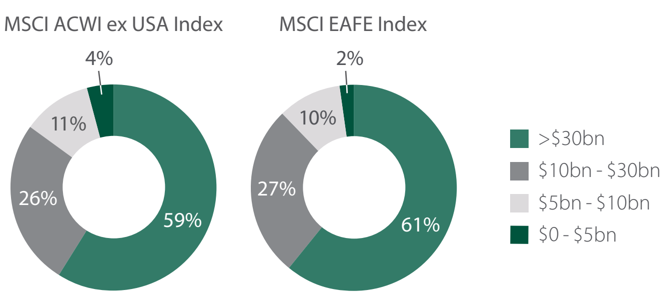
For Institutional Investors Only—Not for Onward Distribution

ARTISAN PARTNERS

International Small Caps: A Strategic Asset Class

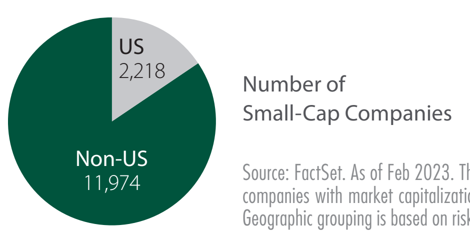
Since Harry Markowitz's seminal paper introducing Modern Portfolio Theory was published in 1952, it has been considered conventional wisdom that a well-diversified portfolio produces superior risk-adjusted returns over a sufficiently long investment horizon. Non- (or at least less-) correlated assets tend to outperform in different market environments and help to dampen volatility in a portfolio. Investors seem to understand this when allocating domestically but often forget this point in their international allocations. When investors allocate to international stocks, they often overlook small-cap companies and use broad indexes that are heavily weighted toward large caps as guides. For examples, the MSCI ACWI ex USA and EAFE indexes have less than 5% weights in companies with market capitalizations of $5bn or below (Exhibit 1). Furthermore, most of the small-cap universe is outside of the US. The number of small-cap companies abroad is 5x that in the US (Exhibit 2). Using eVestment data, international equity has received roughly 15% of total public equity dollars for the average investor. Within the international allocation, small cap portfolios have received only a 6% share historically. This means, on average, international small cap has represented less than 1% of total equity exposure, and an even lower percent of the total investment dollars in a balanced portfolio that includes fixed income. Given the various merits presented herein, it is clear that this under-allocation represents a potentially missed opportunity to enhance risk-adjusted returns.

Exhibit 1: MSCI International Indexes—Market Cap Breakdown



Source: FactSet/MSCI. As of Feb 2023.

Exhibit 2: Small-Cap Universe by Geography



Source: FactSet. As of Feb 2023. The small cap universe is defined as companies with market capitalizations of $300 million to $5 billion. Geographic grouping is based on risk country.

In this paper, we aim to make the case for an international small-cap allocation in a diversified portfolio, as well as the case for active management within this less efficient corner of the equity universe. In the first section, we show that international small-cap companies have historically provided attractive risk-adjusted returns and relatively low correlations with their international large-cap peers. In the second section, we look at the reasons why the asset class tends to be advantageous for active management, including a larger opportunity set, greater return dispersion and lower sell-side analyst coverage. Finally, we pivot from the broad asset class to provide context on the differentiated approach taken within Artisan Partners International Small-Mid Team. Investing in international small-cap stocks requires patience for even the most experienced investors. With a lower liquidity profile, smaller companies often experience higher volatility on a daily and even annual basis. Yet for disciplined investors with longer time horizons, there can be material benefits to investing in this asset class. International small caps, in our view, deserve a place in a well-diversified portfolio.

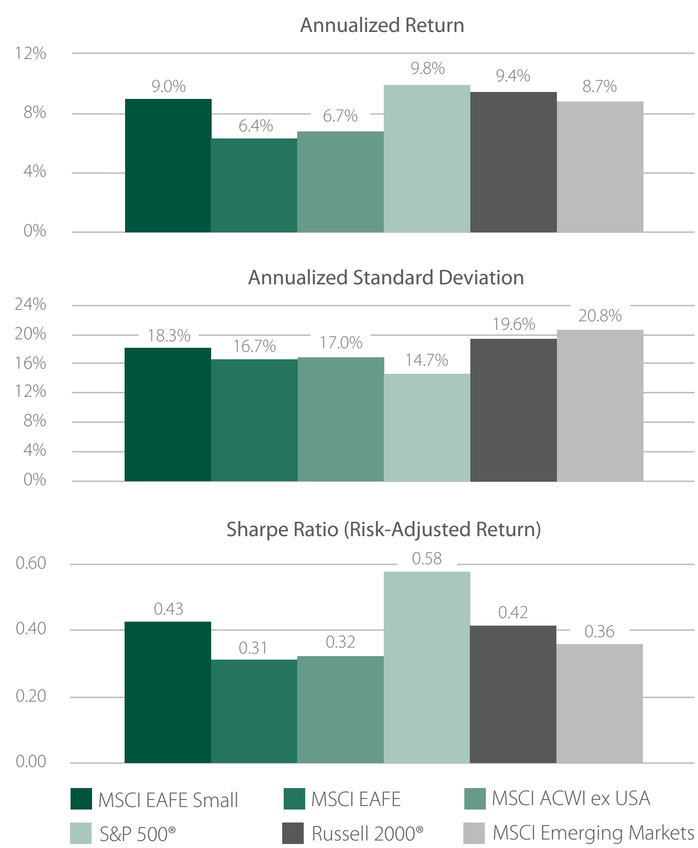
Asset Class Characteristics

As an asset class, the international small cap universe is often misunderstood or overlooked. In this section, we illustrate its historically superior return and risk characteristics over the long term in comparison to other equity universes.

Attractive Risk-Adjusted Returns

First, we examined the long-term performance of international small caps (proxied by the MSCI EAFE Small Cap Index) versus other equity categories, using broad equity indices. As shown in Exhibit 3, over the past 20 years, the annualized return of international small caps stacks up favorably against other equity categories, including US large caps, non-US large caps, US small caps and emerging markets. With annualized standard deviation in the mid-range of this group, international small caps were amongst the most attractive on a risk-adjusted basis.

Exhibit 3: 20-Year Risk-Adjusted Returns



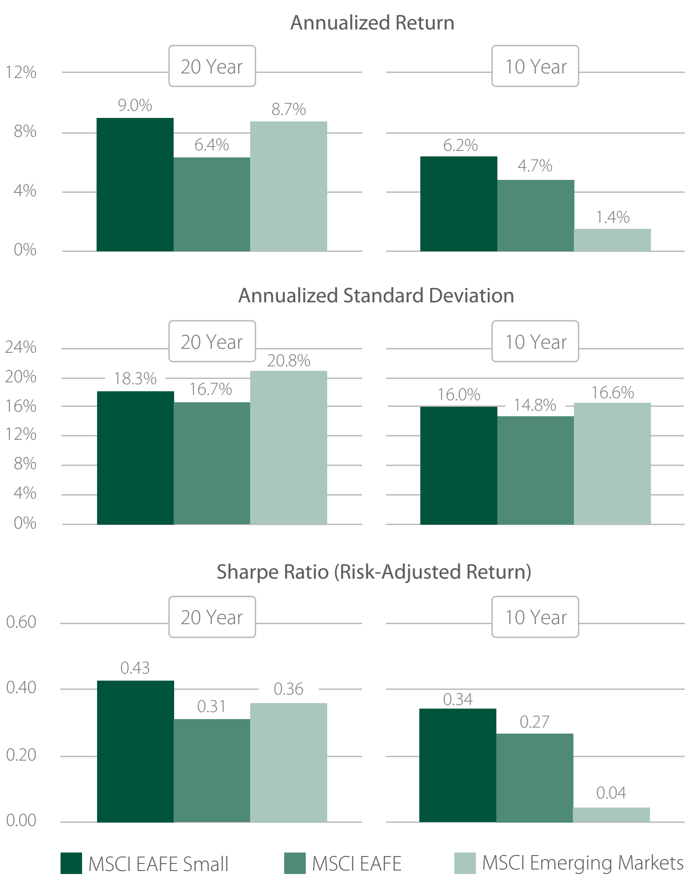
Source: FactSet/MSCI/Russell/S&P. As of 31 Dec 2022. Annualized standard deviation and Sharpe ratios are based on monthly returns data. **Past performance does not guarantee and is not a reliable indicator of future results.**

Next, we took a closer look at small caps in developed markets outside of the US and compared their return and risk profile to non-US developed market large caps and emerging market equities.

International developed market small-cap equities have outperformed both their large-cap counterparts and emerging market equities over trailing ten-year and twenty-year periods, while displaying moderate levels of volatility—corresponding to higher risk-adjusted returns among the three categories (Exhibit 4).

Over the past 20 years, the annualized outperformance of this small cap category was 260 basis points over the similar large cap category and 30 basis points over emerging market equities. With an annualized standard deviation only slightly higher than that of large caps and significantly lower than that of emerging markets, international small caps delivered the best risk-adjusted return in this group. Similar results hold over a 10-year horizon.

Exhibit 4: Historical Performance Trends

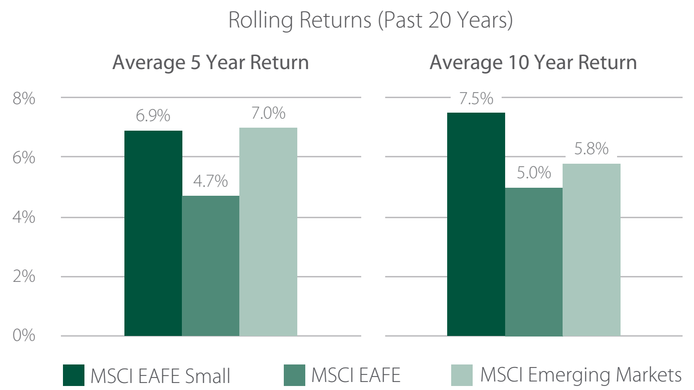


Source: FactSet/MSCI. As of 31 Dec 2022. Annualized standard deviation and Sharpe ratios are based on monthly returns data. **Past performance does not guarantee and is not a reliable indicator of future results.**

Since individual investor experiences may significantly differ given one's start and end dates, we demonstrated the consistency of international small caps' outperformance over international large caps and emerging market equities with rolling returns.

Using rolling 5-year periods over the last 20 years, international small caps markedly outperformed international large caps and generated an average annualized return in line with emerging market equities (Exhibit 5). The performance gap between international small and large caps is even greater when using rolling 10-year periods since 2003, and their outperformance over emerging market stocks is meaningful. This result illustrates the consistent return advantage of international small caps historically.

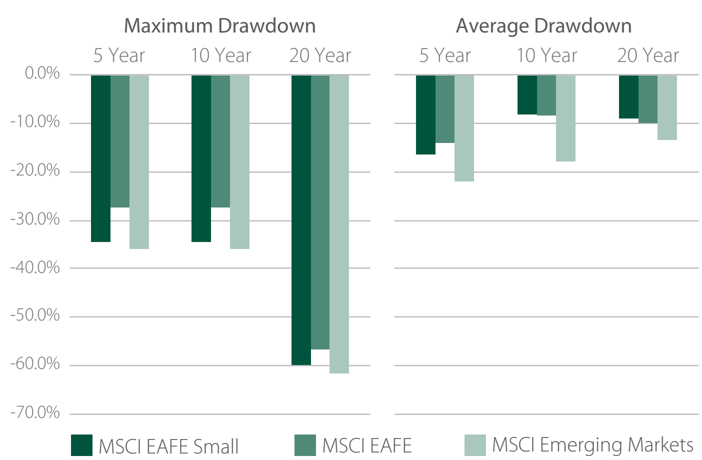
Exhibit 5: The Consistency of the Small Cap Premium



Source: FactSet/MSCI. As of 31 Dec 2022. Based on monthly returns data. **Past performance does not guarantee and is not a reliable indicator of future results.**

Are these higher returns simply compensation for higher risk? Measured as price volatility, there was little difference in the standard deviations of returns over ten- and twenty-year periods, rendering the small cap space more attractive on a risk-adjusted basis as shown earlier (Exhibit 4). When examining another risk metric, drawdown risk, international small caps also performed well. In terms of maximum and average drawdowns, there were smaller differences between international large and small caps than one might expect (Exhibit 6). Moreover, average drawdowns for the MSCI EAFE Small Cap Index were lower than those of the MSCI EAFE Index over ten and twenty years. Emerging markets had the largest drawdowns amongst the three groups across measures and horizons. Considering international small caps' higher returns and similar levels of volatility and drawdowns, their risk-adjusted return characteristics have been strong historically.

Exhibit 6: Maximum & Average Drawdown



Source: FactSet/MSCI. As of 31 Dec 2022. Drawdown is shown as the percentage decline between the peak and the subsequent trough during a specific period of investment. **Past performance does not guarantee and is not a reliable indicator of future results.**

As further evidence of the potential benefits of adding international small caps to a portfolio, we created a hypothetical 70%/30% portfolio of international large caps and emerging markets equities, using the MSCI EAFE and EM indexes, respectively, as proxies. Over a 10-year period ending December 31, 2022, the portfolio produced an annualized return of 3.84% with an annualized standard deviation of 14.61. We compared this portfolio to a second hypothetical international equity portfolio with the addition of international small-cap stocks, specifically 50% international large caps, 25% EM and 25% international small caps, using the MSCI EAFE Small Cap Index as the third proxy. The return of the second portfolio was 54 basis points higher on an annualized basis, while the standard deviation was little changed (14.81 vs 14.61 initially). This exchange increased the risk-adjusted return of the portfolio, as defined by Sharpe ratio, meaning the portfolio manager would have shifted the efficient frontier positively with the inclusion of international small-cap equities. In periods where equity returns in international investing are more challenged, such as the past decade, an efficient mix of asset classes to maximize risk-adjusted returns is of even greater importance.

Lower Correlations

Allocating to international small caps also offers the potential benefit of added diversification. Relative to larger companies, which may have larger geographic footprints and operate multiple business lines, the fundamentals of the smaller companies are often affected by idiosyncratic factors to a greater extent. For the ten years ending December 2022, the correlation coefficient of the MSCI EAFE Small Cap Index was +0.86 with the S&P 500® Index and +0.80 with the Russell 2000® Index (Exhibit 7).

Exhibit 7: Correlations

Index	S&P 500®	Russell 2000®	MSCI EAFE	MSCI EAFE Small Cap	MSCI Emerging Markets
S&P 500®	1.00				
Russell 2000®	0.87	1.00			
MSCI EAFE	0.86	0.76	1.00		
MSCI EAFE Small Cap	0.86	0.80	0.96	1.00	
MSCI Emerging Markets	0.67	0.60	0.79	0.77	1.00

Source: FactSet/MSCI/S&P/Russell. Based on monthly returns: 31 Dec 2012 – 31 Dec 2022. Correlation is a statistical measure of how two variables move in relation to each other. A perfect positive correlation is represented by the value +1.00, while 0.00 indicates no correlation and -1.00 indicates a perfect negative correlation. **Past performance does not guarantee and is not a reliable indicator of future results.**

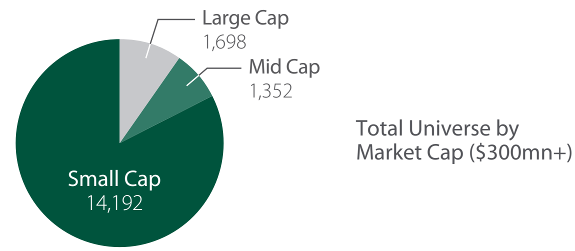
A Case for Active Management

We believe several inherent characteristics of the international small-cap universe offer seasoned managers ample opportunity to enhance alpha through active management and bottom-up stock selection. The opportunities to exploit inefficiencies is even greater for a portfolio manager with the flexibility to invest in small- and medium-sized companies around the world.

Large Opportunity Set

First, the asset class offers a large opportunity set. Based on a market cap range between $300 million and $5 billion, small-cap companies outnumber large caps (defined as those with market caps of $10 billion or more) by more than 8 to 1 (Exhibit 8). The vast majority of these are outside the US—giving a manager of international small caps a significantly larger pool from which to identify superior investing opportunities. In the investable universe of non-US stocks, just 7.7% of names are large caps (excluding micro-cap stocks with market caps below $300 million).

Exhibit 8: Universe of Investible Companies (Number of Companies)



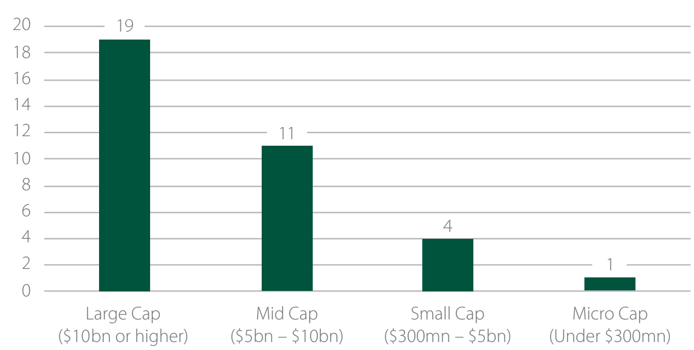
Source: FactSet. As of 6 Feb 2023. Market cap segments are determined as follows: Large Cap is $10 billion+, Mid Cap is $5 billion to $10 billion and Small Cap is $300 million to $5 billion. Companies with market caps less than $300 million are not represented. Geographic grouping is based on risk country.

Inefficient Pricing

The scale of the universe can create another important advantage for managers with the resources and skills necessary to navigate this asset class. The sheer number of companies can make it difficult for sell-side researchers to fully cover global small caps. Exhibit 9 shows the average number of analysts that cover stocks in each capitalization range—large caps are covered almost 5-to-1 over small caps, and 19-to-1 over micro caps. For diligent researchers, it is not uncommon to find high-quality, well-run companies that are not covered by the sell side.

When companies are ignored, misunderstood or underappreciated, it can take longer for fundamental company news to be priced into the value of the stock. This inefficiency can create more opportunities for seasoned investors to exploit shorter-term mispricing.

Exhibit 9: Average Analyst Coverage per Company by Market Cap



Source: FactSet. As of Feb 2023. Based on the number of analyst ratings for a security in the FactSet Estimates database.

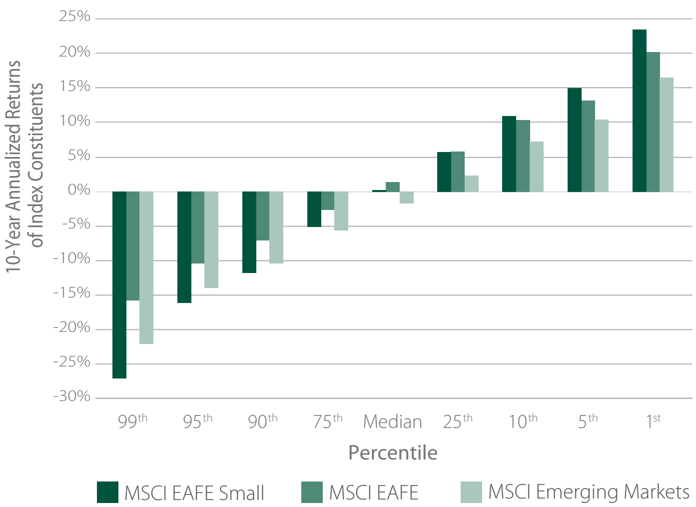
Wide Performance Dispersion

As we highlighted in prior sections, the international small-cap universe is massive and can experience inefficiency in market pricing. Further, smaller companies in earlier stages of development can also experience explosive growth—and the reverse can be true as well. These characteristics, combined with more variable liquidity profiles, can lead to a wider range of performance outcomes, contributing further to alpha-generating potential for this universe.

For example, over the past 10 years, a hypothetical passive investment in the MSCI EAFE Small Cap Index would have produced an annualized return of 6.2% compared to 4.7% and 1.4%, respectively, for the MSCI EAFE and MSCI Emerging Markets indexes. Interestingly, this stronger performance included a wider range of outcomes among the MSCI EAFE Small Cap constituents (Exhibit 10).

The wider range of outcomes suggests that seasoned international small-cap managers who employ a differentiated investment approach have more opportunity to add value above the benchmark—not only by choosing the leaders, but also by avoiding the laggards.

Exhibit 10: Range of Individual Company Returns Within the MSCI Indices
Based on 10-Year Annualized Returns



Source: FactSet/MSCI. Based on the 10-year period ended 31 Dec 2022. **Past performance does not guarantee and is not a reliable indicator of future results.**

Idiosyncratic Drivers

A closer look into the performance drivers of small companies also supports the case for active management, particularly for managers with high levels of investment freedom. Historically, company-specific factors have accounted for a far higher share of volatility for small-cap stocks than for large-cap stocks as well as emerging markets for the majority of the last 15 years, as measured by cross-sectional volatility of returns. Cross sectional volatility is calculated as the standard deviation of asset returns over a single period. When dispersion of stock returns is high, active managers have greater opportunities to add value through stock selection. Since return dispersion in the small-cap universe has, on average, been greater than in the large-cap and emerging markets universes, one can conclude that there have been more opportunities for active management in the small-cap universe to add alpha over the index.

Opportunity for Active Managers

The relationship between return dispersion and opportunities for active managers is also consistent with historical performance results. Based on 5- and 10-year net-of-fee rolling returns (using monthly observations) from January 1, 2005 to December 31, 2022, separate account constituents in the eVestment ACWI ex USA Small Cap equity universe generated average annualized returns of about 8.6% and 8.9%, respectively. That compares to 6.1% for the MSCI ACWI ex USA Small Cap Index for both rolling intervals, equating to excess returns of 246 basis points and 275 basis points (Exhibit 11). This degree of outperformance is the largest among all the investment universes compared.

Exhibit 11: Active Manager Outperformance in International Small Caps

	Average Rolling Returns	
eVestment Universes/Benchmarks	5 Years	10 Years
US Large Cap	10.0%	10.5%
Russell 1000® Index	10.7%	11.2%
Value Added	**-67bps**	**-73bps**
US Small Cap	10.1%	10.4%
Russell 2000® Index	9.2%	9.8%
Value Added	**86bps**	**67bps**
EAFE Large Cap	10.1%	10.4%
MSCI EAFE Large Cap Index	9.2%	9.8%
Value Added	**86bps**	**67bps**
ACWI ex USA Small Cap	8.6%	8.9%
MSCI ACWI ex USA Small Cap Index	6.1%	6.1%
Value Added	**246bps**	**275bps**
Global Emerging Markets	6.0%	4.9%
MSCI Emerging Markets Index	5.0%	4.0%
Value Added	**95bps**	**84bps**

Source: eVestment/FactSet/MSCI/Russell. Based on rolling 5- and 10-year returns (monthly) from 1 Jan 2005 to 31 Dec 2022. The eVestment universes include separate/segregated account net-of-fees observations. **Past performance does not guarantee and is not a reliable indicator of future results.**

In Summary

Throughout this paper, we have explored the various characteristics that make the international small-cap asset class compelling as a strategic allocation for long-term investors. Then, we touched on why this arena is ripe with potential alpha for active managers. Next, in our closing section, we briefly touch on what makes the Artisan strategy unique, and why this differentiated investment approach is a good fit for those seeking what is most exciting about this emerging asset class.

A Note on Our Approach to This Universe

Artisan Partners International Small-Mid Team

From the aforementioned data presented in this paper, one can appreciate the historical return and risk characteristics of international small-cap equities, and the opportunity for active management to add value in this inefficient universe. While this asset class has a myriad of companies, the investment team of the Artisan Partners International Small-Mid Team is attracted to a narrower portion of the universe and focuses on the select few companies that it believes have the potential to become large, global industry leaders. The investment team possesses rich knowledge and experience in this space, with a combined 30+ years exclusively focused on investing in small companies globally.

The team seeks long-term ownership in high-quality, idiosyncratic businesses exposed to structural tailwinds. Portfolio companies operate at the intersection of growth and change, where ingenuity can drive disruption within industry value chains. This thematic element to the investment approach orients the portfolio to areas of the market that are positioned on the right side of history and that the team believes should continue to accelerate over the next decade. Whether the theme is energy transition, biotherapeutics, next-gen auto or cloud conversion, it is built from the bottom up and is enduring.

Ingredients of winning companies the team looks for include differentiated and defensible business models, talented management teams that can create value even in turbulent times, unique assets, strong balance sheets, healthy cash flow generation, the ability to self-fund growth, pricing power and structurally high returns on invested capital. Wonderful businesses are rarely available at attractive prices, so the team looks for opportunities to acquire them in a contrarian fashion. Mismatches between stock price and business value frequently occur during market dislocations, temporary slowdowns, or misperceptions in the investment community—particularly amid an investment cycle, management change and restructuring. The investment team seeks to exploit short-term irrationality in the market and focuses on a company's through-cycle profitability, using 5-year cash flow projections to underpin business model durability.

One can think of the team's research process as being analog in a digital world. The portfolio manager and analysts seek to glean non-obvious insights by meeting with company management teams around the world, heads of R&D, industry experts, reporters of trade publications and government policy makers, as well as by soliciting feedback from customers of and suppliers to companies. In combination, this forms the foundation of the team's differentiated viewpoints on companies and changes in industries.

The result of this process is a carefully constructed portfolio of a select 100+ companies around the world—out of the potential ten thousand plus in the investment universe. This approach is aimed at separating the wheat from the chaff in security selection, which is precisely what's needed in this opaque and vast space with pronounced performance disparities.

Well aware of the inherent risks in this asset class, the team runs an overall flat portfolio with respect to position sizes and one that is diversified throughout industries, geographies and themes. Positions are built gradually as the team gets to know businesses and their management teams over time, and portfolio weights reflect the magnitude of an opportunity versus the level of conviction. However, the most important risk management tool is understanding direct and indirect security risks by intimately knowing portfolio companies and the industries in which they operate. The team views risk as the probability of permanent loss of capital, not short-term share price volatility. In fact, as a low-turnover, long-term oriented portfolio, volatility tends to create a dynamic for the team to be opportunistic and contrarian in managing position sizes.

It is most satisfying to accompany small businesses on their journey to becoming large, globally relevant industry leaders—and in the process, potentially compound high returns for investors over long periods of time. The team's passion and excitement about the opportunities this universe presents are evident.

Since inception, the Artisan Partners International Small-Mid Team has delivered strong performance and derived the lion's share of its returns from individual holdings, rather than sector allocation or currency exposure, demonstrating its historical stock selection prowess. The strategy has also consistently had high active share, offering investors a high-quality, differentiated portfolio with idiosyncratic drivers.

With seasoned leadership, a long-term orientation and a rigorous fundamental research process that drives bottom-up stock selection, the investment team of the Artisan Non-U.S. Small-Mid Growth Strategy has been able to deliver superior long-term, risk-adjusted returns.

Artisan Non-U.S. Small-Mid Growth Strategy

Investment Results

(%) as of 31 March 2024	QTD	YTD	1 Yr	3 Yr	5 Yr	10 Yr	Inception
			Average Annual Total Returns				
Composite—Gross	**4.13**	**4.13**	**8.65**	**-1.42**	**8.94**	**—**	**11.55**
Composite—Net	**3.88**	**3.88**	**7.57**	**-2.41**	**7.85**	**—**	**10.43**
MSCI All Country World ex USA SMID Index	2.44	2.44	12.31	0.31	5.51	—	7.22

Calendar Year Returns (%)

	2019	2020	2021	2022	2023
Composite—Gross	**38.37**	**35.36**	**5.17**	**-23.02**	**12.42**
Composite—Net	**36.96**	**33.99**	**4.13**	**-23.81**	**11.30**
MSCI All Country World ex USA SMID Index	22.36	12.01	10.16	-19.49	15.79

Trailing 1-Year Returns

(% USD) 12 Months Ended 31 March	2019	2020	2021	2022	2023
Composite—Net	**36.96**	**33.99**	**4.13**	**-23.81**	**11.30**

Source: Artisan Partners/MSCI. Returns for periods less than one year are not annualized. Composite inception: 1 January 2019.

Past performance does not guarantee and is not a reliable indicator of future results. Current performance may be lower or higher than the performance shown. Composite performance has been presented in both gross and net of investment management fees.

Investment Risks: Investments will rise and fall with market fluctuations and investor capital is at risk. Investors investing in investment vehicles denominated in non-local currency should be aware of the risk of currency exchange fluctuations that may cause a loss of principal. These risks, among others, are further described on the last page, which should be read in conjunction with this material.

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Investment Risks: International investments involve special risks, including currency fluctuation, lower liquidity, different accounting methods and economic and political systems, and higher transaction costs. These risks typically are greater in emerging markets. Securities of small- and medium-sized companies tend to have a shorter history of operations, be more volatile and less liquid and may have underperformed securities of large companies during some periods. Growth securities may underperform other asset types during a given period. Diversification does not ensure a profit or protect against loss. Investments will rise and fall with market fluctuations and investor capital is at risk. Investors investing in strategies denominated in non-local currency should be aware of the risk of currency exchange fluctuations that may cause a loss of principal. These risks, among others, are further described in Artisan Partners Form ADV, which is available upon request.

This summary represents the views of the portfolio managers as of 31 Mar 2023 and is subject to change without notice. While the information contained herein is believed to be reliable, there no guarantee as to the accuracy or completeness of any statement in the discussion.

Unless otherwise indicated, the Artisan Strategy characteristics relate to that of an investment composite or a representative account managed within a composite. It is intended to provide a general illustration of the investment strategy and considerations used by Artisan Partners in managing that strategy. Individual accounts may differ, at times significantly, from the reference data shown due to varying account restrictions, fees and expenses, and since-inception time periods, among others. Where applicable, this information is supplemental to, and not to be construed with, a current or prospective client's investment account information.

Performance: Net-of-fees composite returns were calculated using the highest model investment advisory fees applicable to portfolios within the composite and include reinvestment of dividends, interest, and other proceeds from transactions. All performance results are net of commissions and transaction costs, and have been presented gross and net of investment advisory fees. Dividend income is recorded net of foreign withholding taxes on ex-dividend date or as soon after the ex-dividend date as the information becomes available to Artisan Partners. Interest income is recorded on the accrual basis. Performance results for the index include reinvested dividends and are presented net of foreign withholding taxes but, unlike the portfolio's returns, do not reflect the payment of sales commissions or other expenses incurred in the purchase or sale of the securities included in the indices.

MSCI All Country World ex USA SMID Index measures the performance of small- and mid-cap companies in developed and emerging markets excluding the US. MSCI All Country World ex USA Small Cap Index measures the performance of small-cap companies in developed markets and emerging markets excluding the US. MSCI EAFE Index measures the performance of developed markets, excluding the US and Canada. MSCI EAFE Small Cap Index measures the performance of small-cap companies in developed markets, excluding the US and Canada. The MSCI Emerging Markets (EM) Large Cap Index includes large-cap representation across 27 Emerging Markets countries. The MSCI Emerging Markets Materials Index includes large and mid-cap companies in the materials sector across emerging markets countries. MSCI All Country World ex USA Index measures the performance of developed and emerging markets, excluding the US. Russell 1000® Index measures the performance of roughly 1,000 US large-cap companies. Russell 2000® Index measures the performance of roughly 2,000 US small-cap companies. S&P 500® Index measures the performance of 500 US companies focused on the large-cap sector of the market. The index(es) are unmanaged; include net reinvested dividends; do not reflect fees or expenses; and are not available for direct investment.

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eVestment is a manager-reported database of institutional investment managers and does not independently verify the data.

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