# A “Not-so-Small” Gap in Many Investor Portfolios

## The Case for International Small Cap Equities

Most institutional investors have a dedicated allocation to small cap stocks within their US equity portfolios, believing that the asset class offers diversification benefits and a potential return premium over large cap stocks. Even though the same principles apply to non-US equities, international (or non-US) exposure is often gained strictly through large cap or all cap investment strategies. Of the over 900 investment strategies in eVestment’s Non-US Diversified Equity peer group, roughly 85% of assets are invested in such large cap or all cap portfolios.

In this analysis, we demonstrate why we believe institutional investors may be under-allocated to international small cap equities and why this potentially represents a missed opportunity for alpha generation. Additionally, we highlight key active management attributes, which we believe have historically been successful in navigating these markets.

## Key Takeaways

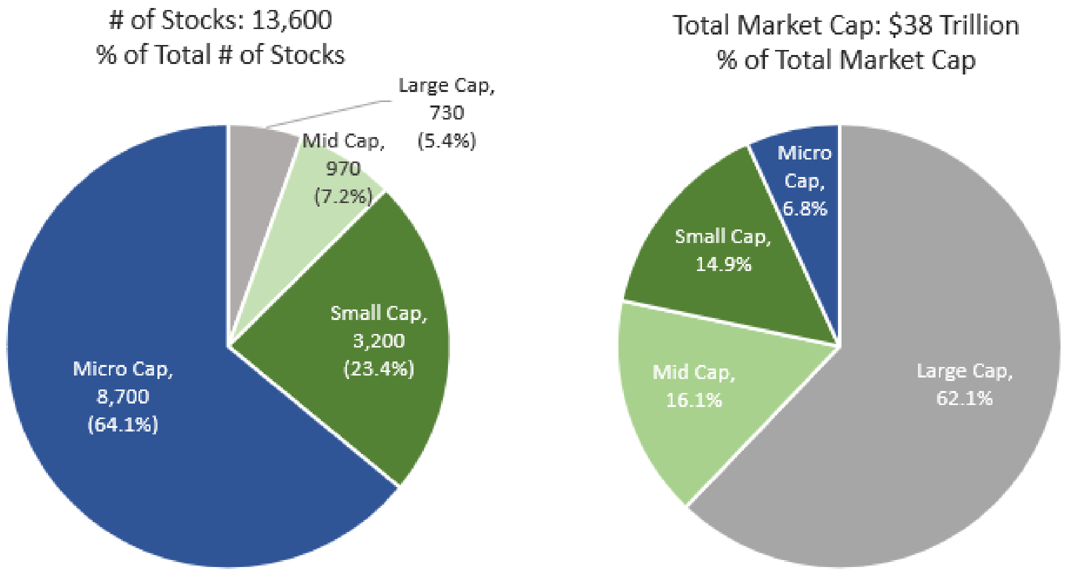
- Most institutional portfolios lack a specialized non-US small cap manager and may be underexposed to the opportunity set
- Non-US small cap stocks have historically outperformed their large cap counterparts both in absolute and risk-adjusted terms
- Non-US small cap offers diversification benefits to an institutional multi-manager portfolio
- Small cap active managers have historically delivered more alpha than their large cap peers
- A targeted and efficient approach to research is important for unlocking value in this inefficient space

## Overlooked by Investors

Spread across 46 countries in both developed and emerging markets, the non-US small cap equity universe represents a broad and diverse opportunity set for active managers. There are nearly 12,000 public companies considered in the non-US small/micro cap segment of the market, which we define as those companies with market capitalizations between $100 million and $4 billion, as indicated in Figure 1. Despite these stocks outnumbering non-US large/mid cap stocks by 12:1, the number of investment strategies dedicated to non-US small cap equities remains relatively limited. There are nearly 3,000 global and non-US equity investment products in the eVestment database as of December 31, 2018, but only 9% of them are small cap mandates. This compares with US equity product offerings, of which nearly 20% are small cap focused.

**Figure 1:** Most publicly traded stocks are small and micro cap

Universe of Investable Stocks Outside the US




Source: FactSet universe as of November 2018. Excludes the US, mainland China and OTC (bulletin board) stocks. Micro Cap $100M - $800M, Small Cap $800M - $4B, Mid Cap $4-10B, Large Cap >$10B

An investor may choose to own a non-US all cap strategy, believing it provides sufficient exposure to the global universe. However, many of these strategies have a benchmark with an inherent large cap bias such as MSCI EAFE, which has less than 2% of its weight in stocks less than $4 billion in market value. Consequently, non-US all cap managers in eVestment show an average 76% allocation to stocks greater than $7.5 billion and only an average 4% allocation to stocks less than $1.5 billion. This compares to the investable universe as defined above, which has 11.3% in stocks less than $1.5 billion, meaning the average non-US all cap manager is 7% underweight this lower market cap segment.

Further, relying on a single manager to cover the full market cap spectrum can make portfolio risk exposures difficult to measure and control. The risk budget that should be allocated to generating excess returns may be inefficiently allocated, given the large cap bias of the typical benchmark. Managers are then rewarded for taking incremental systematic risk (i.e. size) when they should really only be compensated for generating alpha. One way to potentially avoid this is to have a dedicated non-US small cap manager who can focus exclusively on stock picking within this opportunity set.

## Potential Diversification Benefits

The characteristics of small cap stocks can lead them to behave differently than their large cap counterparts. Small companies can be more influenced by idiosyncratic factors, rather than broad market shifts, since firm profitability is often determined by a limited number of product lines. Additionally, smaller companies, on average, derive more of their revenues from local sources, suggesting truer company-specific diversification. According to FactSet, companies in the MSCI World ex-US Micro Cap Index and MSCI ex-US Small Cap Index average 10% more and 7% more revenue from local sources, respectively, compared to those companies in the MSCI ACWI ex-US Large Cap Index. This indicates performance of smaller companies may be more directly affected by regional trends such as an expanding middle class, infrastructure build-out, or change in government policy.

These characteristics can lead to lower correlations among other equity asset classes and, therefore, may offer diversification benefits within an equity portfolio. Figure 2 illustrates that non-US small cap stocks have had a meaningfully lower correlation to the S&P 500 Index than other equity asset classes. A study done by Russell Investments[1] demonstrates the benefits of this expanded diversification during the "lost decade" for US equities (July 31, 2001 to June 30, 2011), when international small caps outperformed both US small and large caps by a cumulative 144% and 190%, respectively. The study cites that for an otherwise broadly diversified $1 billion equity portfolio, increasing international small cap exposure from 0% to 10% during this period would have created an incremental $66 million of value, as well as lowered the portfolio's volatility and increased its Sharpe ratio.

**Figure 2:** Compelling diversification potential

### Correlations Across Equity Asset Classes

| | MSCI ACWI ex-US Small Cap | MSCI ACWI IMI | MSCI ACWI ex-US Mid Cap | MSCI ACWI ex-US Large Cap | Russell 2000 Index | Russell Midcap Index | S&P 500 Index |
|---|---|---|---|---|---|---|---|
| MSCI ACWI ex-US Small Cap | 1.00 | | | | | | |
| MSCI ACWI IMI | 0.93 | 1.00 | | | | | |
| MSCI ACWI ex-US Mid Cap | 0.99 | 0.96 | 1.00 | | | | |
| MSCI ACWI ex-US Large Cap | 0.95 | 0.97 | 0.98 | 1.00 | | | |
| Russell 2000 Index | 0.77 | 0.87 | 0.79 | 0.78 | 1.00 | | |
| Russell Midcap Index | 0.85 | 0.95 | 0.88 | 0.87 | 0.95 | 1.00 | |
| S&P 500 Index | 0.80 | 0.96 | 0.85 | 0.87 | 0.88 | 0.95 | 1.00 |

Source: MSCI, Russell, S&P. Data as of 12/31/2018. Correlations are calculated using monthly total returns of the identified indexes since January 2001.

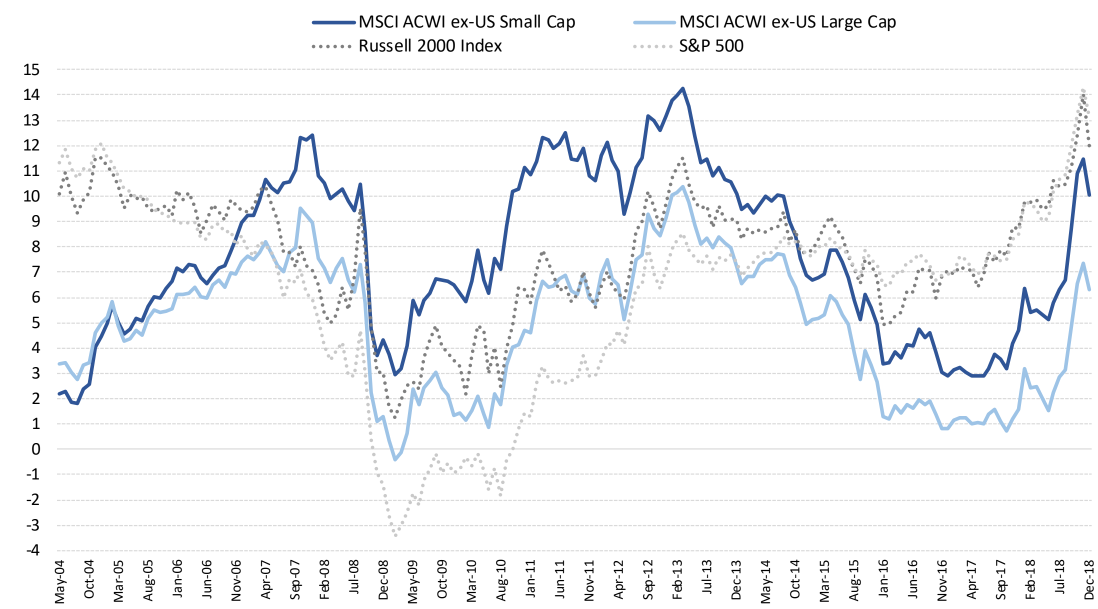
[1] "International Small Cap: Defining a Promising Asset Class," Mathew Lystra, Spring 2013

## Evidence of a Small Cap Premium

The theory of a small cap premium presumes that stocks with lower market capitalizations should earn greater returns to compensate for the higher risk relative to stocks with larger market capitalizations. Figure 3 shows that since inception of the MSCI ACWI ex-US Small Cap Index in June 1994, a small cap premium has indeed been present in both US and non-US markets. This phenomenon has been most prevalent in non-US markets where the MSCI ACWI ex-US Small Cap Index has outperformed its large cap counterpart 94% of the time over rolling 10-year periods, and by an average of +279 basis points annually. Similarly, in the US, the Russell 2000 Index has outperformed the S&P 500 Index 72% of the time over rolling 10-year periods by an average of 150 basis points.

**Figure 3:** Small cap equities have outperformed large on average over time

Rolling 10-Year Annualized Returns




Source: MSCI, S&P. Data as of 12/31/2018. Performance is calculated using monthly total returns of the identified indexes annualized over rolling 10-year periods since 6/30/1994. Please reference the index definitions at the end of this document. It is not possible to invest directly in an index. Past performance does not guarantee future results.

While historical data show that small caps outperform large over longer time periods, they do so with slightly more volatility. However, looking at a comparison of Sharpe ratios in Figure 4 suggests this increase in risk on average has been well compensated. Over the last 10- and 20-year periods, the MSCI ACWI ex-US Small Cap Index has added +374 and +338 basis points of annualized return, respectively, over its large cap counterpart.

## Research Risk-Return Profile of Non-US Equities

**Figure 4:**
Small cap has offered superior risk-adjusted returns

| | 5 Year | | | 10 Year | | | 20 Year | | | ITD | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Return | St. Dev. (%) | Sharpe Ratio | Return | St. Dev. (%) | Sharpe Ratio | Return | St. Dev. (%) | Sharpe Ratio | Return | St. Dev. (%) | Sharpe Ratio |
| **Small Cap** | 1.97% | 11.87 | 0.115 | 10.03% | 17.00 | 0.569 | 7.14% | 17.73 | 0.299 | 5.08% | 16.96 | 0.152 |
| **Large Cap** | 0.47% | 11.98 | -0.111 | 6.29% | 16.39 | 0.362 | 3.76% | 16.89 | 0.114 | 4.34% | 16.40 | 0.112 |

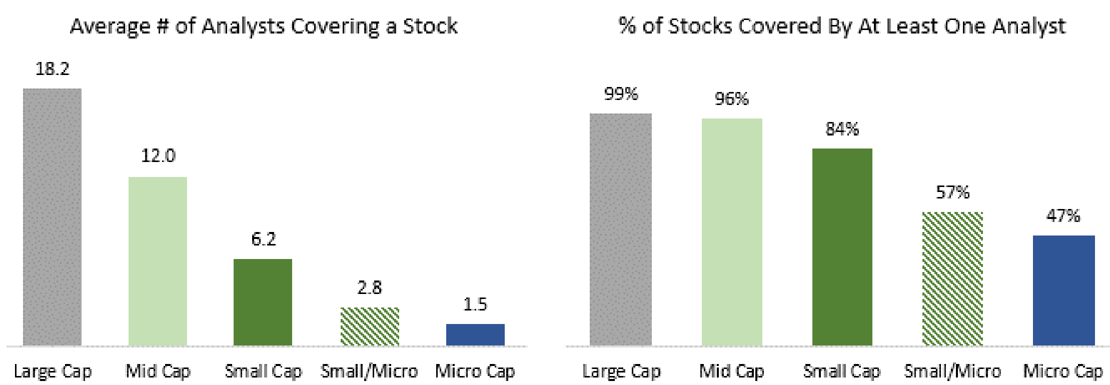
*MSCI. Returns are in USD as of 12/31/2018, represented by the MSCI ACWI ex-US Small Cap Index and the MSCI ACWI ex-US Large Cap Index. The ITD period is from 6/30/1994 through 12/31/2018. It is not possible to invest directly in an index. Past performance does not guarantee future results.

# Fertile Ground for Active Management

While the aforementioned reasons alone make a compelling case for an allocation to international small cap, we believe the strongest argument stems from the inherent dynamics of the asset class. As mentioned previously, the opportunity set is vast, with 87% of all publicly traded stocks in the non-US universe falling into small and micro cap category. Yet, research coverage on these stocks is relatively thin, with an average of three analysts covering a stock, compared to large cap, which averages 18 analysts per stock. In fact, 43% of the small/micro cap universe of stocks is not covered at all.

## Research Coverage

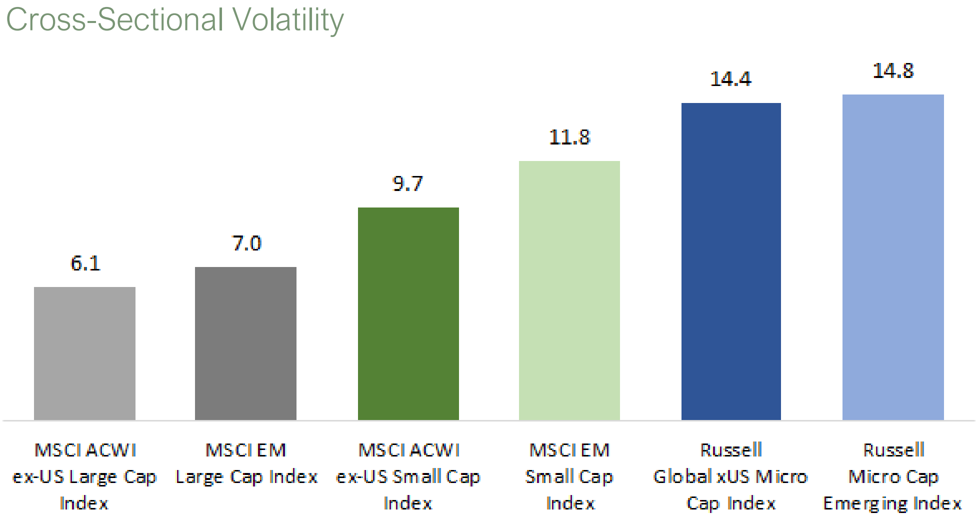
**Figure 5:**
Considerably lower research coverage




Source: FactSet universe as of November 2018. Excludes the US, mainland China and OTC (bulletin board) stocks. Micro Cap $100M - $800M, Small Cap $800M - $4B, Mid Cap $4-10B, Large Cap >$10B

Additionally, the disparate nature in which these stocks behave points to a potentially more favorable environment for active managers. Figure 6 illustrates that small and micro cap companies maintain a higher level of cross-sectional volatility relative to large cap, which has translated into a much wider range of performance outcomes. The high level of cross-sectional volatility highlights the potential of the active management opportunity.

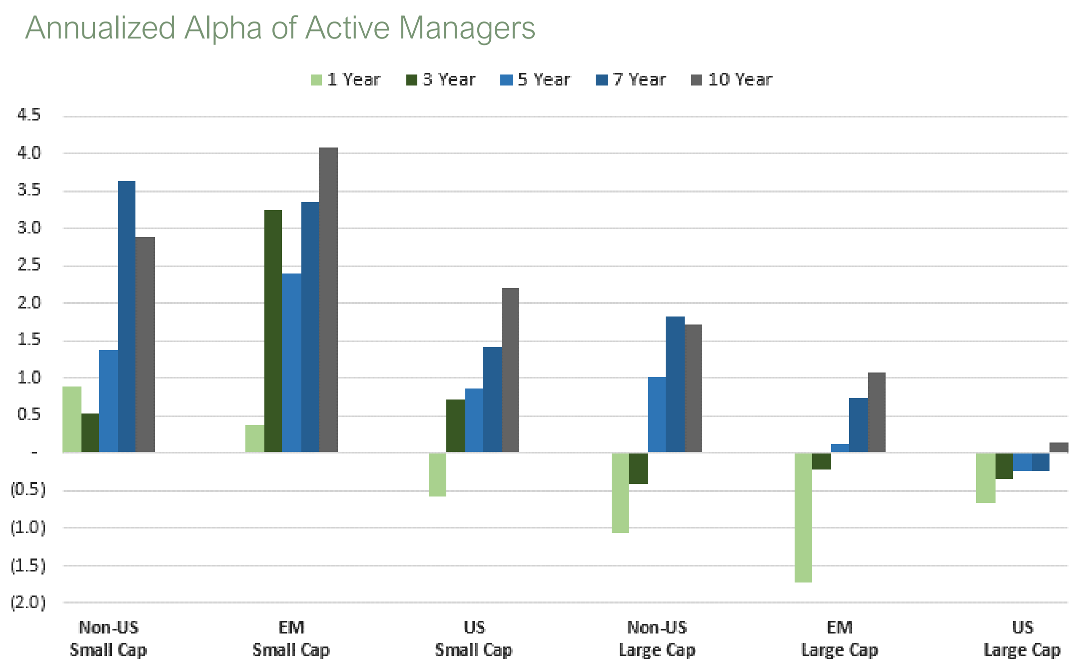
**Figure 6:**
Higher cross-sectional volatility highlights the active management opportunity




Source: Cross-sectional volatility calculated using monthly data from FactSet for the last 5 years ending September 30, 2018

These dynamics have resulted in a large, inefficient market where the potential for overlooked and mispriced securities is far greater than in more established segments. Skilled, active managers have the potential to exploit these types of opportunities to generate consistent, meaningful excess returns through stock selection at a level beyond what might be expected in a large cap strategy. Hence, a dedicated, actively managed non-US small cap strategy can help capture the full potential of the asset class, whereas an all cap approach risks significantly diluting this possible alpha and an indexed approach potentially misses it altogether. Figure 7 confirms that non-US small cap active managers have indeed been able to add impressive alpha over their larger cap peers.

**Figure 7:**
Small-cap managers have added impressive alpha over their larger-cap peers



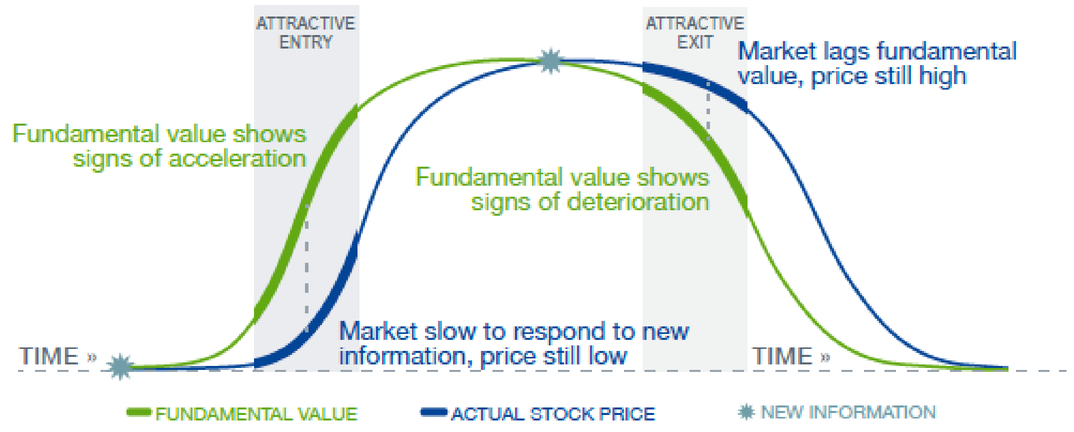

Source: eVestment data as of December 31, 2018. Return of the median manager, gross of fees, within each respective peer group is shown. Alpha is calculated using the following benchmarks within each universe: US Small Cap (Russell 2000), US Large Cap (Russell 1000), Non-US Small Cap (MSCI ACWI ex-US Small Cap), Non-US Large Cap (MSCI ACWI ex-US Large Cap), Emerging Markets Small Cap (MSCI Emerging Markets Small Cap), and Emerging Markets Large Cap (MSCI Emerging Markets Index).

## Finding the Optimal Balance Between Depth & Breadth

The sheer size and rapidly changing dynamic of the non-US small cap universe can make it difficult for many managers to research each and every stock thoroughly. Thus, we believe a systematic and timely approach to screening the universe is paramount in helping managers identify and capitalize on those opportunities with the most potential.

Behavioral investment research suggests that investors tend to discount new information and fundamental developments because of inherent conservative and representative biases. We believe this behavior typically follows a predictable anchor-and-adjust process, as illustrated below.

**Figure 8:**
Investor behavior can create mispricing




Compared to larger cap equities, the relatively slow dissemination of information in the micro cap subset can further magnify this effect. Coupled with lower sell-side coverage and dramatically fewer active managers in the space, the lags between when changes in fundamental value occur and when those changes are accurately reflected in market prices have historically been both notable and exploitable.[2]

We believe capitalizing on these attractive entry and exit points requires an investment process that can focus research efforts on the strongest investment candidates: companies undergoing positive fundamental change. The disparity between when there is a change in fundamental value and when that change is reflected in the stock price is often greatest after the release of new information. Knowing the key indicators of fundamental change and efficiently screening for those factors are essential to distilling the investment universe to a list of candidates with the highest likelihood of being mispriced. Further, we believe that focused fundamental analysis of those opportunities in a disciplined and timely manner ultimately allows for the effective management of a non-US small cap portfolio.

[2] Based on research by Edwards, 1968, Kahneman and Tversky, 1974.
Note: Chart is hypothetical and does not represent actual data.

## Closing the Gap

Operational hurdles and lack of investment vehicles have historically presented obstacles for non-US small cap investing. These barriers, however, have diminished considerably as international capital markets have matured. Still, it is an asset class that is widely underrepresented among investors' portfolios.

We believe the argument for an allocation to actively managed international small cap equities is profound. The category has historically generated attractive risk-adjusted returns and lower correlations, two characteristics that point to significant portfolio diversification benefits. Finally, the opportunity set is vast, relatively under-covered, and inefficient, therefore offering those active managers with a focused investment process the opportunity to generate alpha. For investors looking to benefit from the full potential of international equities, we believe the case for international small cap is clear.

# Advantages of EAM Investors

Specialist in Inefficient Markets - Every aspect of our firm, from team composition and our investment philosophy and process to our technology platform, was purpose-built to exploit the structural inefficiencies that exist in global small and micro cap equity markets.

Philosophy – Our positive change-based investment philosophy has the flexibility to consider the entire universe of global small and micro cap stocks across all countries and sectors.

Process - Objective, disciplined, daily investment process is optimally designed to consider the full breadth of the opportunity set. Focused and timely fundamental research is essential in small and micro cap equity markets where change is dynamic and constant.

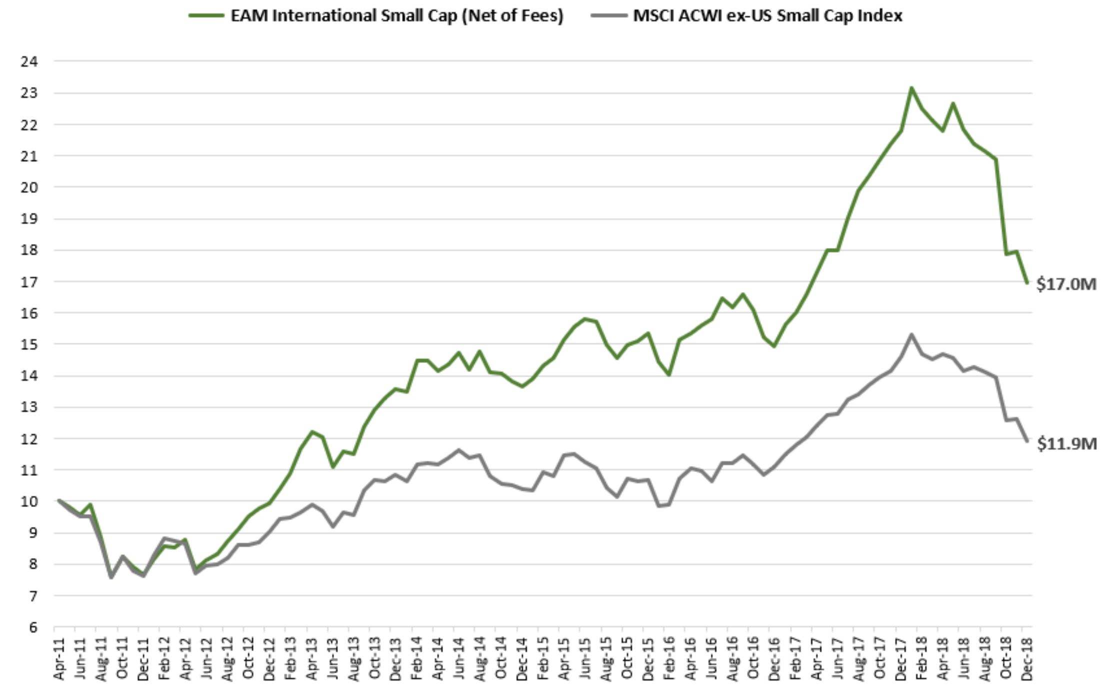
Investment Team - Experienced, cohesive portfolio management and generalist research team allow for informed decisions to be made consistently, effectively, efficiently, and without country/sector biases.

Trading Team - Equity traders have an average of 20 years of experience transacting in small and micro cap equity markets using state of the art technology and the personal relationships to source liquidity and avoid eroding alpha with transaction costs.

Risk Management - Risk-aware portfolio construction is designed to protect clients' capital in difficult markets.

Performance - Historically consistent investment performance characteristics have enabled our International Small Cap strategy to add +482 basis points of excess annualized return since inception, net of fees.[3]

EAM International Small Cap Composite: Growth of $10 Million Since Inception




Source: MSCI, EAM Investors. Performance is from inception of the EAM International Small Cap Composite, May 1, 2011 through December 31, 2018. Performance is shown net of the maximum management fee. Please reference disclosures on the following page.

[3] The excess annualized return is calculated as the annualized net return of the EAM International Small Cap Composite less the annualized return of the MSCI ACWI ex-US Small Cap Index for the period May 1, 2011 - December 31, 2018.

## About EAM Investors, LLC

EAM Investors, LLC specializes in active small and micro cap equity strategies in inefficient global markets. By using a time-tested philosophy and a disciplined, focused, and objective investment process, EAM believes they can add consistent alpha to their portfolios. The firm's culture is focused on teamwork, with all team members conducting research, and an open office architecture promoting effective communication, debate, and real-time decision making. Portfolio managers have long-standing working relationships and a strong dedication to each other and the investment process.

### Joshua Moss

Mr. Moss serves as a Managing Director and Portfolio Manager of EAM Investors, a firm he co-founded in 2007. In addition he serves as portfolio manager for the firm's Non-US investment strategies. Prior to founding EAM, he was a Vice President and Equity Analyst at Nicholas-Applegate Capital Management where he served on the firm's US Micro/Emerging Growth Team with primary research responsibilities for the Micro Cap and Ultra Micro Cap investment strategies. Prior to joining the US Micro/Emerging team, Josh was assigned to the firms Global Select team. During his tenure with the Global Select strategy, his duties included co-portfolio management and research head of the Global Consumer Discretionary Sector. Previously, Mr. Moss was with Credit Suisse First Boston as a Vice President in equity sales and investment banking. Mr. Moss has 19 years of direct investment experience. He holds an M.B.A. from the Anderson School of Management at the University of California, Los Angeles and a B.A. from the University of California, San Diego.

### John Scripp

Mr. Scripp serves as a Managing Director and Portfolio Manager at EAM Investors. John is a portfolio manager for the firm's Non-US investment strategies. Prior to his portfolio manager position, John served as a research analyst with EAM. Before joining the firm at its inception in 2007, Mr. Scripp had prior research experience at Nicholas-Applegate Capital Management working with the US Micro/Emerging Growth investment team. Mr. Scripp has 12 years of experience in the institutional investment business. Mr. Scripp holds a B.A. in Economics from the University of Wisconsin, Madison.

### Travis Prentice

Mr. Prentice serves as CEO and Chief Investment Officer of EAM Investors, a firm he co-founded in 2007. In addition, he serves as portfolio manager for the firm's US Small Cap Growth and US Micro Cap investment strategies. Prior to founding EAM, Mr. Prentice was a Partner, Managing Director and Portfolio Manager with Nicholas-Applegate Capital Management where he had lead portfolio management responsibilities for their Micro and Ultra Micro Cap investment strategies and a senior role in the firm's US Micro/Emerging Growth team. Travis has 21 years of institutional investment experience specializing in small and micro cap equities. He holds an M.B.A. from San Diego State University and a B.A. in Economics and a B.A. in Psychology from the University of Arizona.

### Michele Rodrigues

Ms. Rodrigues serves as a Senior Associate and Product Specialist. Prior to joining EAM in 2014, Michele was with Fidelity Investments for eleven years most recently serving as a Portfolio Associate and Portfolio Analyst, where she provided multiple portfolio managers with support by monitoring and analyzing portfolio positioning, risk metrics, characteristics and performance. Additional positions at Fidelity included Operations Analyst and Senior Control Accountant. Additional experience includes securities trading positions at Penn Mutual/Cornerstone Financial Group. Ms. Rodrigues has 15 years of investment experience. She holds a B.S. in Finance from Bentley University and a M.B.A. from Northeastern University.

## Disclosures

The net returns of the EAM International Small Cap Composite is presented net of brokerage commissions and include income from interest and dividends as well as capital gains. The returns do not reflect the deduction of taxes a typical investor may accrue or custodial fees. Net returns are net of the maximum annual management fees of 1.00%. The MSCI ACWI ex USA Small Cap Index captures small cap representation across 22 of 23 Developed Markets (DM) countries (excluding the US) and 23 Emerging Markets (EM) countries. The index is designed to measure small cap equity market performance in the global developed and emerging markets excluding the United States. The MSCI ACWI ex USA Small Cap Index has been chosen as a benchmark to the EAM International Small Cap strategy because the Advisor believes that it is the most appropriate broad-based securities index available to be used for comparative purposes given the investment strategy of the portfolios.

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