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International Total Market Investing: Does Your Plan Have an International Small-Cap “Gap”?

Although international small-cap equities have long offered attractive returns and diversification properties to U.S. investors, there has been a sharp increase in interest in the international small-cap asset class recently, due in part to changes to the Morgan Stanley Capital International (MSCI) international equity indices. MSCI Barra completed enhancements to the methodology of its popular MSCI international equity indices to deepen its coverage of small-cap stocks and introduce new indices segmented by size, style, and industry. The new MSCI Global Investable Market Indices (MSCI GIMI), composed of the new Global Standard and the new Global Small-Cap indices, was fully implemented in May 2008. These indices offer broader equity market coverage by moving from a sampled approach in the small-cap indices to more comprehensive stock coverage and eliminated the prior existing overlap between the standard and small-cap indices. Institutional investors have begun to better understand the differences between the new and old indices. They are considering how the changes impact their international equity investment policies.

International small-cap investing

The case for international investing is grounded in modern portfolio theory, beginning with the Markowitz models of the 1950s, which were based on the diversification benefits of investing in the broadest possible global portfolio. However, when most investors add international companies to their portfolios, they generally add large-cap names, in part due to their liquidity. This common large-cap bias also derives from the fact that most stock indices are capitalization weighted, as well as from the name recognition and comfort level that comes from holding well-known multinational companies.

As an asset class, international small-cap equities offer several unique benefits. First, the opportunity set is expansive. With more than 2,200 stocks, the international small-cap universe has twice as many stocks as the large- and mid-cap universes combined. Second, the asset class is less efficiently researched because it is covered by fewer equity analysts. For example, the average number of analysts per stock in the MSCI EAFE (Europe, Australasia, Far East) Standard Index is 7.8, compared with only 2.9 for the EAFE Small Cap Index. This lower level of coverage results in greater incidences of market inefficiencies, and hence greater scope for finding undervalued stocks. Third, international small-cap equities have historically delivered consistently strong absolute and risk-adjusted returns

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relative to international large caps and other asset classes. And, lastly, the asset class offers significant diversification benefits when combined with other major asset classes.

Today, the role of international small-cap stocks is being reexamined by many institutional investors for two primary reasons. The first reason is the attractiveness of the asset class itself, given the historical performance and diversification benefits offered by international small-cap stocks. The second reason is the introduction of the new MSCI GIMI, which includes a 15% allocation to small-cap stocks.

This paper looks at the role of international equities within the asset allocation policies of U.S. institutional investors, the differences between the MSCI GIMI group of indices and previous versions of the MSCI international equity indices, a review of the historical risk-and-return characteristics of the international small-cap asset class, and the ways in which institutional investors might choose to add small-cap international stocks to their strategic asset allocation.

We believe that the prospects for international small-cap equities are bright and that institutional investors will continue to increase their allocation as the benefits of this asset class become more widely understood.

U.S. institutional investors' historical approach to international investing

Recent surveys¹ show that international investing is a large and growing part of most institutional investors' strategic asset allocation, with an average allocation to non-U.S. equities of 17% for public defined benefit (DB) plans, and 15% for corporate DB plans. Most academic studies have shown that active management of international equities has provided more consistent above-benchmark returns than have most other asset classes. This point has not been lost on institutional investors, as some 90% use active management for their international equity mandates. The Pyramis 2007 Defined Benefit Research

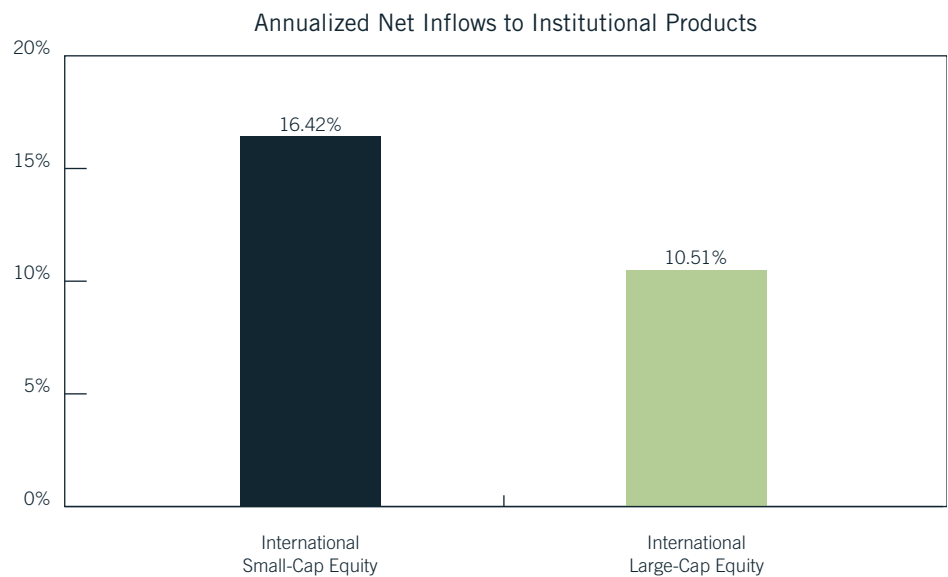
Study, "Today's Pension Investing Playbook: Key Strategies for a New Era," found that current return expectations are also higher for international equities, as survey respondents forecast a return of 9.3% for non-U.S. equities over the next five years, compared with 8.5% forecast for U.S. equities.

As illustrated in **Exhibit 1**, institutional investors have been increasing their allocations to international small-cap equities at a faster rate than to large-cap international stock allocations. International small-cap assets have grown at a rapid clip, rising 16.4% per year in institutional investors' plans from 2001 to 2009. However, they still represent a relatively small percentage of all international equity assets. As the new MSCI GIMI has a 15% allocation to small-cap stocks, this implies that there should be a significant increase in demand for international small-cap stocks, even if only a small proportion of institutional investors decides to move from the old MSCI Standard international equity indices to the MSCI GIMI family of indices.

MSCI benchmark changes

The term EAFE is a regional one, referring to the developed markets of the world outside North America, including the regions of Europe, Australasia, and the Far East. In common parlance, however, EAFE became shorthand for the MSCI EAFE Standard Index, which focused on large- and mid-cap international equities, even though there was also an EAFE Small Cap Index. The new MSCI GIMI group of indices includes large-, mid-, and small-cap indices, as well as growth and value indices, across a variety of regional indices, such as the EAFE Index. The new MSCI Global/Regional Standard indices include both large-cap and mid-cap indices, which together encompass approximately 85% of the market capitalization in each country. The corresponding new small-cap indices cover companies in the bottom 15% of market capitalization above a minimum size ranging from approximately \$150 million to \$400 million (USD) of free-float adjusted market capitalization and that meet certain liquidity thresholds.

Exhibit 1: Strong Institutional Investor Demand for International Small-Cap Equities



Source: *Manager Dynamics in International Small Caps*, Standard & Poor's Corporation, August 2009.

In the past, the EAFE Standard and the EAFE small-cap indices have overlapped to some degree as shown in **Exhibit 2**. The new EAFE Small Cap Index provides more comprehensive coverage and eliminates the overlap with the EAFE Standard Index. Because the EAFE Investable Market Index (IMI) targets up to 99% of the free-float adjusted market capitalization in each country, the number of new stocks in the index rose sharply, with the resulting new EAFE Small Cap containing close to 2,200 companies, up from only about 1,200 companies in the old EAFE Small Cap Index.

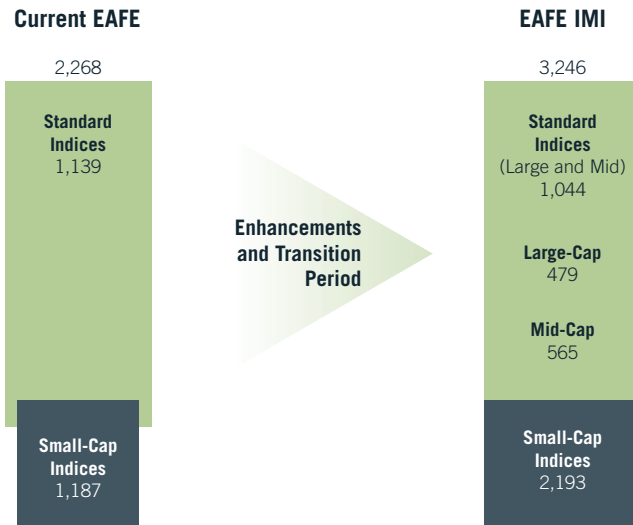
Because the MSCI international equity indices are market capitalization weighted, the difference in the characteristics between the old EAFE Standard and the new EAFE Standard are minimal. For example, the new EAFE Standard Index dropped roughly 200 names, or about 17% of the total number of names in the old EAFE Standard Index. However, the impact on the weighted average market capitalization is in the neighborhood of 1%. This is because most of the mid-cap names eliminated to create the new EAFE Standard Index have a market capitalization below \$3 billion.

International small-cap equities historical performance

The historical case for international small-cap investing is a strong one and becomes evident with a closer look at four demonstrable historical characteristics of this asset class:

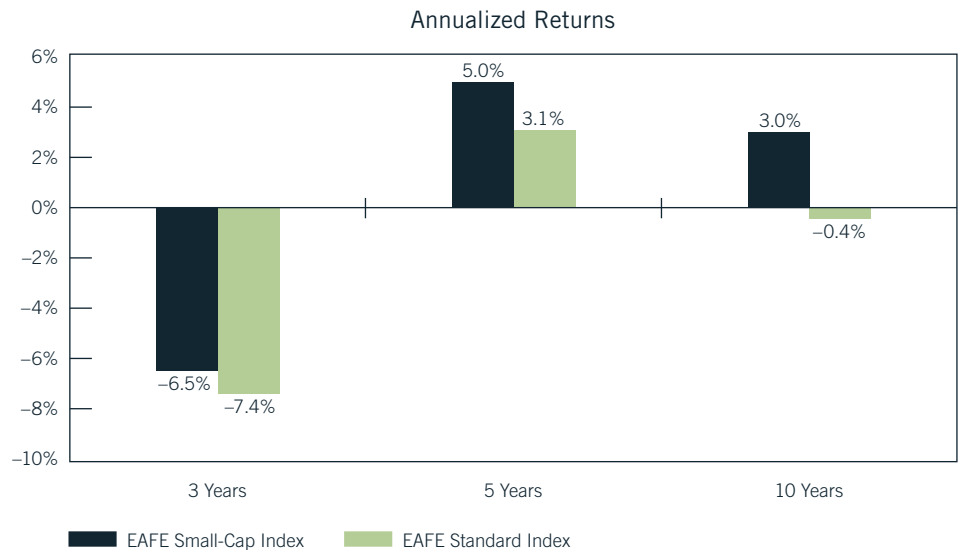
- Strong absolute returns
- Consistent value added from active management
- Proven diversification benefits
- High risk-adjusted returns

Exhibit 2: The New MSCI Indices Eliminate Market Cap Overlap while Significantly Expanding Small-Cap Coverage



Source: MSCI Barra, Inc.

Exhibit 3: Superior Returns for International Small-Cap Equities across Longer Time Periods



Source: MSCI Barra, Inc. Returns as of 8/31/09.

Strong absolute returns

Historically, international small-cap equities have been able to deliver stronger returns than international large caps over longer-term time horizons, as shown in **Exhibit 3**. Similarly, longer-term studies of U.S. small-cap equity returns relative to U.S. large-cap equity returns have demonstrated that the higher risk premium associated with the small-cap stocks translates into larger returns. This same high risk premium effect may also help explain the higher returns provided by international small-cap stocks. In any case, the strong returns offered by international small-cap equities have translated into rising demand, as institutional investors continually seek asset classes with high absolute and risk-adjusted returns to meet their investment objectives.

Long-term returns for international small-cap stocks versus international large-cap stocks have been strong; however, their relative performance can vary substantially from period to period. **Exhibit 4** shows that small-cap stocks lagged the larger Provisional EAFE Standard from 1994 through 2000, but provided more than twice the return of the Provisional EAFE Standard from 2000 through 2007. Although these periods of small-cap stock over- and underperformance relative to large-cap stocks seem to persist for several years, the diversification benefits of international small-cap stocks make a strong case for maintaining a strategic allocation to international small-cap equities throughout the market cycle.

Consistent value added from active management

Returns for actively managed small-cap stocks have been higher than for large-cap stocks, in part because fewer equity analysts follow these stocks. **Exhibit 5** shows rolling three-year quarterly returns for the median international small-cap manager relative to the benchmark. The average three-year alpha for the median international small-cap manager has been a strong 2.8%, a full percentage point higher than the alpha for the median international large-cap manager.

Exhibit 4: Relative International Small-Cap Equity Returns Can Vary Substantially

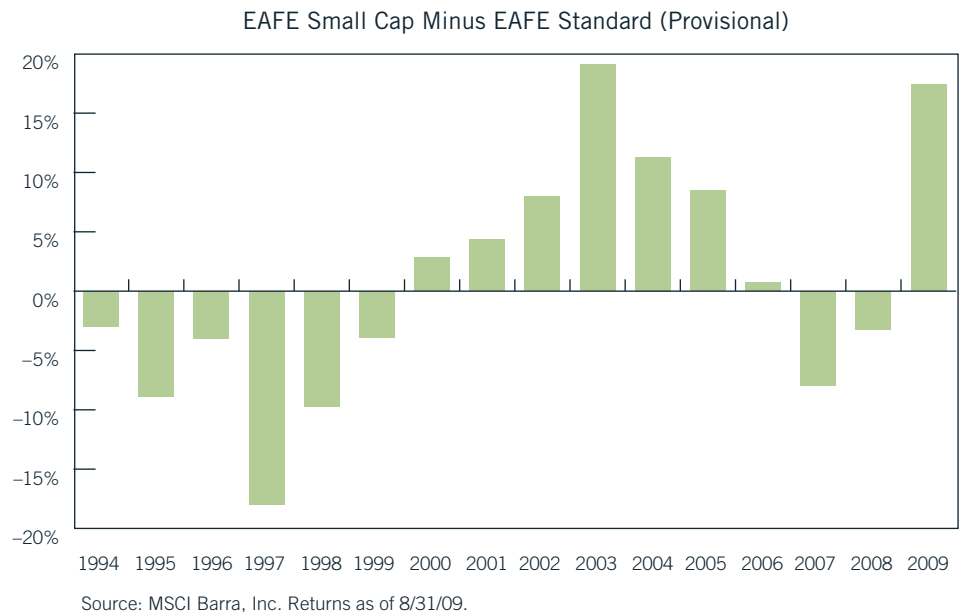
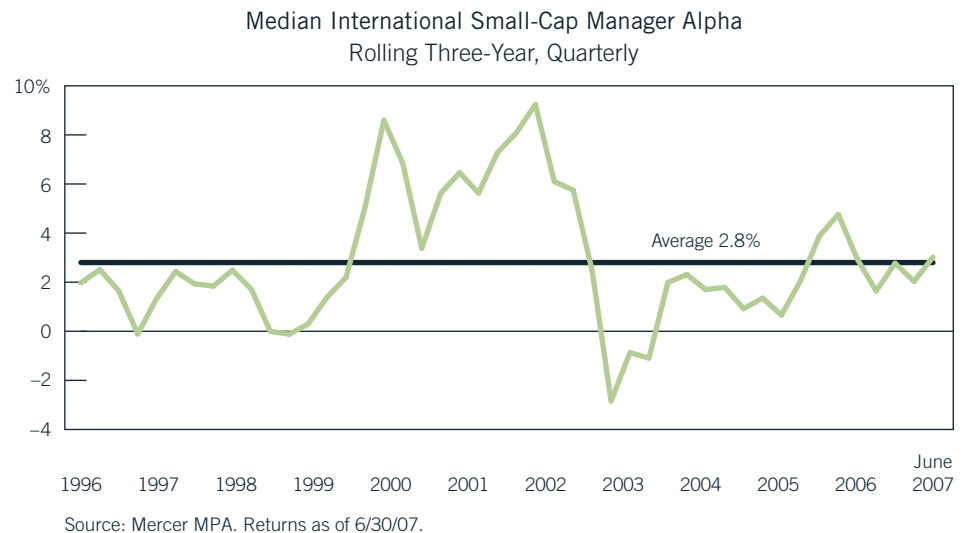


Exhibit 5: International Small-Cap Managers Consistently Beat the Benchmark



Using the Barra Integrated Model can help to explain the consistency of excess returns to active management in international small-cap equities. In the Barra Integrated Model, asset returns are attributed to either common global factors, common local (country-specific) factors, or idiosyncratic (stock-specific) returns. The cross-sectional volatility attributable to the global and local factor returns was nearly identical between the old EAFE Standard Index and the old EAFE Small Cap Index. The stock-specific volatility for the new EAFE Small Cap Index, however, is substantially higher, indicating that as small-cap stock returns are driven more by company-specific fundamentals, the potential return to active management and fundamental research is correspondingly higher.² Thus, it is reasonable to assume that the higher returns to active management in the small-cap portfolio will translate into higher risk-adjusted returns in an all-cap international equity portfolio benchmarked to the EAFE IMI compared with the EAFE Standard, which includes only large- and mid-cap stocks.

Proven diversification benefits

The diversification argument in favor of international small-cap investing is a strong one. One recent study stated the case quite forcefully.

Our simulations indeed show that a fully diversified international large-cap stock portfolio is about 9.2% as risky (measured by the portfolio variance) as a typical individual stock, but a fully diversified international large- and small-cap stock portfolio can further reduce the risk by about two-thirds. This result suggests that small-cap stocks can play an effective and unique role in global risk diversification.³

The diversification benefit of international small-cap investing has become more important as the trend toward globalization has increased correlations between national stock markets, thus eroding the diversification benefits of large-cap international investing. Small-cap international stocks, which are less affected by global investment trends

and tend to be driven more by idiosyncratic local market factors, are better diversifiers than large-cap stocks. **Exhibit 6** shows that while the correlation of international small-cap stocks with the Standard & Poor's 500 Composite Stock Index (S&P 500® Index) has moved directionally with international large-cap stocks, the correlation of the small-cap stocks has consistently been much lower.

High risk-adjusted returns

The high absolute returns combined with the diversification benefits lead to strong risk-adjusted returns, as shown in **Exhibit 7**. Therefore, within a multi-asset-class portfolio the international small-cap allocation may be included for not only the absolute return expectations but also for the risk-adjusted returns.

Solutions

The foregoing discussion provides strong arguments to support the consideration of international small-cap equities as a separate asset class and demonstrates that they have

historically provided attractive risk-and-return properties within a diversified portfolio. However, many institutional investors might still be wondering what changes, if any, they should consider making to their investment portfolios in light of the changes to the MSCI international equity indices and, if so, how they might best implement them.

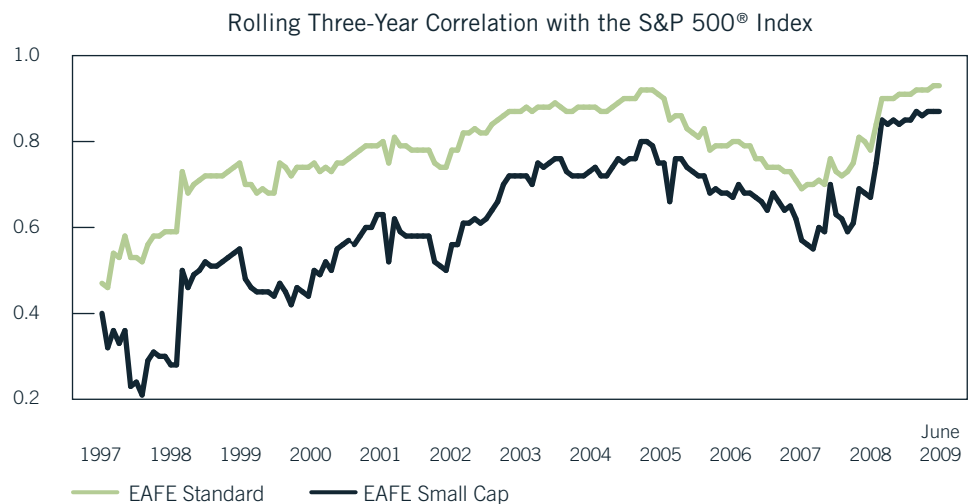
We believe that institutional investors have three main options available when considering the addition of international small-cap equities to their investment plan. These options, with their respective advantages and disadvantages, are to:

- Maintain the status quo
- Extend existing mandates
- Add a separate small-cap mandate

Maintain the status quo

Many institutional investors may decide that they do not need to change their strategic asset allocation to include international small cap and will choose to adopt the new Provisional EAFE Standard Index which, although

Exhibit 6: International Small-Cap Stocks Offer Superior Diversification



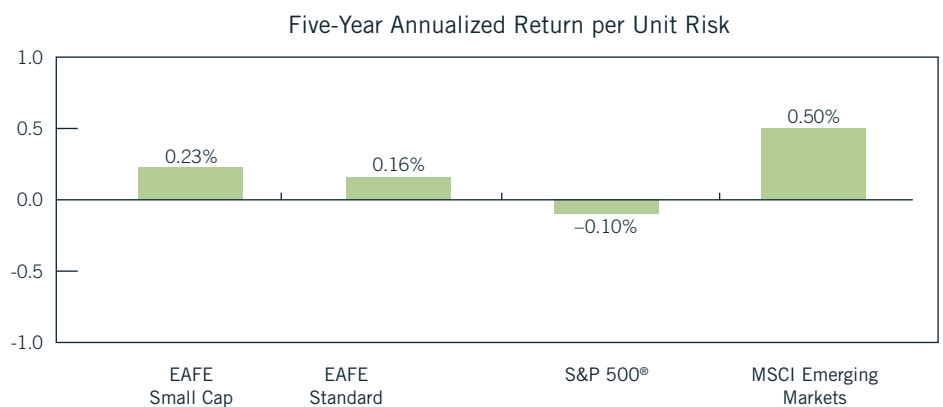
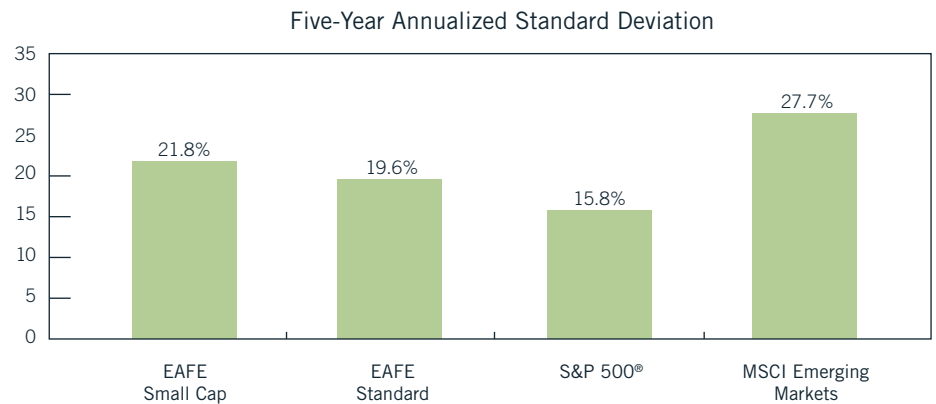
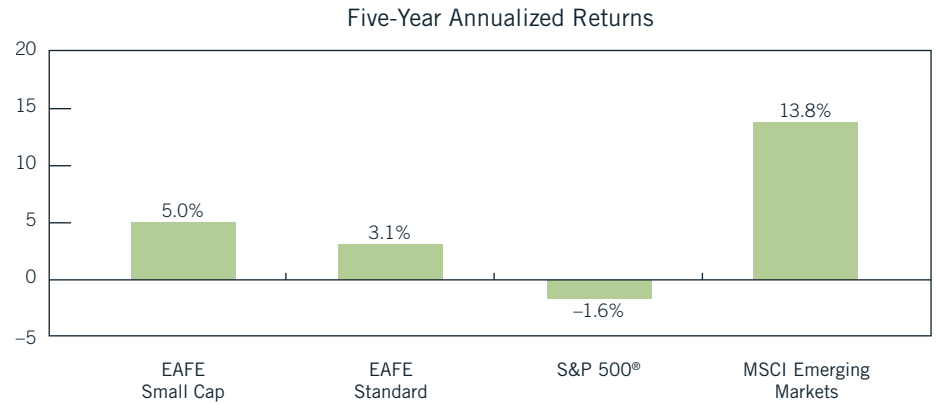
Source: MSCI Barra, Inc., S&P. Returns as of 8/31/09.

it will shed some smaller-cap names, has characteristics that are extremely close to the current MSCI EAFE Index. Maintaining the status quo may represent the path of least resistance in that no new mandates need be added, thus avoiding the board approval process and the accompanying complications of adding a new portfolio to the asset allocation policy. However, the drawback of this approach is that it ignores the potential diversification and return offered by international small-cap stocks, and runs counter to the principles of modern portfolio theory that provide the intellectual underpinning for the majority of diversified investment plans.

Extend existing mandates

An approach that is only slightly more burdensome than maintaining the status quo is to adopt the all-cap EAFE IMI benchmark and extend the mandate of the existing international managers to include international small-cap stocks. One appeal of this approach is that it minimizes the administrative burden of setting up new accounts and overseeing new managers. However, it has some significant drawbacks as well. A shift from the current MSCI EAFE Index to the EAFE IMI adds approximately 2,200 names to the benchmark, essentially trebling the number of stocks to follow. Many investment managers may lack the expertise or familiarity with this asset class needed to provide the diversification and return that a specialist small-cap manager can provide. Large-cap managers might be tempted to invest in only a representative sample of the small-cap equity universe or to vary the small-cap allocation opportunistically; both strategies can reduce diversification and return. Lastly, international small-cap stocks are driven by local factors and are much more illiquid, requiring a higher degree of local knowledge. This requires regionally based small-cap equity research and analysis and a specialized trading staff, in order to extract the greatest benefit from both idea generation and execution.

Exhibit 7: International Small-Cap Equities Provide High Risk-Adjusted Returns



Source: MSCI Barra, Inc., S&P. Returns as of 8/31/09.

Add a separate small-cap mandate

Lastly, many institutional investors will decide to add a separate international small-cap mandate with a proven track record. This approach benefits from the specialist international small-cap expertise of the manager and the advantage of trading expertise in the more liquidity-constrained international markets for smaller-cap stocks. A stand-alone international small-cap portfolio also enables the establishment of more specific portfolio-level risk-and-return targets. For example, an institutional investor might wish to allocate a higher risk target to the international small-cap portfolio, given the greater inefficiency of the asset class and its smaller weight within the overall plan. The downside to this approach is that it requires additional administrative effort in the search for, hiring, and ongoing oversight of the international small-cap investment manager. In addition, given the liquidity constraints within the international small-cap segment, many of the best small-cap equity investment managers are either closed or have limited capacity.

Conclusion

International small-cap investing, which has been on the rise in the institutional marketplace, is likely to accelerate, given the renewed focus on the asset class, due at least in part to changes in the MSCI international equity indices. The potential benefits of investing in international small-cap stocks have been well documented. International

small-cap equities present a large investment universe of securities that, as they are covered by fewer research analysts than large- and mid-cap stocks, can provide consistently strong risk-adjusted returns in addition to powerful portfolio diversification benefits.

Because investing in the widest liquid universe of securities is a central tenet of modern portfolio theory, many institutional investors can be expected to switch to the MSCI GIMI family of indices and, as a result, they will seek to increase their exposure to international small-cap equities. International small-cap returns should enjoy a “tailwind” as many institutional investors close their “small-cap gap” and increase their allocation from the current average of 3.4% of their international equities to closer to the 15% allocation in the new MSCI GIMI. ■

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Chris Steward, CFA, is an institutional portfolio manager within the international equity group at Pyramis. Chris has 20 years of international market experience, beginning in 1987 at the Federal Reserve Bank of New York, in the Foreign Exchange Analysis Group. Chris has also authored and coauthored several texts on international investing, one of which is required reading for Level III of the CFA program.

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Endnotes:

¹ Casey, Quirk & Associates Institutional Product Review, First Quarter 2007.

² Nielsen, Frank, “International Small Cap: A Distinct Asset Class?” *Journal of Indexes*, November/December 2007.

³ Eun, Cheol S., Wei Huang, and Sandy Lai, “International Diversification with Large- and Small-Cap Stocks,” *Journal of Financial and Quantitative Analysis* (JFQA).

Description of Terminology

EAFE Standard Index is the current index based on the sampling methodology used by MSCI that covers large-, mid-, and some small-cap securities across EAFE countries.

Provisional EAFE Standard Index is the new index based on Global Investable Market Indices methodology that covers the large- and mid-cap securities across the EAFE countries. This index will replace the EAFE Standard Index at the end of May 2008. Beyond May 2008, this Provisional EAFE Standard Index will become the new EAFE Standard Index.

EAFE IMI Index is the total market index based on Global Investable Market Indices methodology that covers large-, mid-, and small-cap securities across EAFE countries. This index includes the Provisional EAFE Standard and the Provisional EAFE Small-Cap indices.



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