Research

Redrawing the equity map with global small caps

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Redrawing the equity map with global small caps

The earth is flat…or so it was believed, until sometime after 500 B.C.[1] Until then, explorers dared not venture too far, for fear of reaching the physical limits of the planet and…falling off. It's easy to imagine how constrained the world must have seemed to those who held this view. Equity indexing, too, has had its own "flat earth" period, when the global opportunity set seemed to be limited to the largest stocks from a select number of large countries. Fortunately, with the FTSE Global Small Cap Index, FTSE Russell has pushed past this narrow view to capture a vastly expanded equity universe that includes global small caps (hereinafter "small caps"). Although small caps currently comprise only about 10-12% of the world's investable equities by total market capitalization, they make up approximately 60% of the world's investment opportunities by numbers of stocks.[2] The characteristics of these stocks often differ from those of their large cap counterparts, so that when small caps are added to traditional large cap allocations, they can diversify the total portfolio and offer the potential for enhanced returns. In this brief research note, we explore small caps and the potential benefits of "rounding out" an equity portfolio by adding this asset class.

Nowadays, most investors understand the need to diversify their equity portfolios beyond stocks from their home country. But in so doing, their focus has primarily been on large cap stocks from the largest markets, like those found in the FTSE All-World® Index.[3] Global large cap companies such as Apple, Nestlé, Toyota and Samsung all have highly recognizable brands whose familiarity provides a degree of comfort to investors moving outside their home markets.[4] But many of these large companies are increasingly interconnected after having expanded their businesses globally, meaning that a common set of factors could explain much of their collective performance. Small caps, on the other hand, can be more dependent on their local economies, and therefore may offer an alternative pattern of performance and characteristics when mixed into a portfolio of global equities.[5]

Throughout this paper, we will use the FTSE All-World Index and the FTSE Global Small Cap Index to contrast global large cap with global small cap stocks, as well as a hypothetical 90:10 weighted blend of these two indexes (90% FTSE All-World, 10% FTSE Global Small Cap) in order to demonstrate the historical diversification effects of adding small caps to the traditional large cap allocation.[6]

Performance

The performance of small caps tends to lead when markets have directional strength, either up or down. This leadership offers investors the opportunity to participate more in up-trending markets, but also carries the risk of more downside exposure when market sentiment turns negative. Figure 1 illustrates the performance tendencies of small caps in both up and down markets. Shaking off the effects of the early 2000s global slowdown, the FTSE Global Small Cap Index outperformed the FTSE All-World Index by more than 15% in 2003, and this leadership continued each year through 2006. As the storm clouds gathered over equity markets in 2007, the FTSE Global Small Cap Index still managed a respectable 9.5% calendar year return, but fell behind the FTSE All-World Index on a relative basis. When the global financial crisis unfolded in 2008, small caps had their worst year of the period evaluated — the FTSE Global Small Cap Index fell by nearly 46%, compared to the FTSE All-World Index, which fell by nearly 42%. But at the beginning of the global recovery, the FTSE Global Small Cap Index once again outperformed the FTSE All-World Index, by 11.8% in 2009 and 13.7% in 2010.

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[1] See "Was Pythagoras a Mathematician or [a] Cosmologist?" in *Stanford Encyclopedia of Philosophy: Pythagoras*: http://plato.stanford.edu/entries/pythagoras.

[2] As of September 29, 2017; FTSE Global Small Cap Index and FTSE All-World Index.

[3] The FTSE All-World Index also includes large/mid cap companies from emerging market countries. For more information on how these size ranges are defined, please reference "Ground Rules for the FTSE Global Equity Index Series" at http://www.ftse.com/products/downloads/FTSE_Global_Equity_Index_Series.pdf

[4] Zajonc, R.B. (2001). "Mere Exposure: A Gateway to the Subliminal." *Current Directions in Psychological Science*, Vol. 10, No. 6, pp. 224-28.

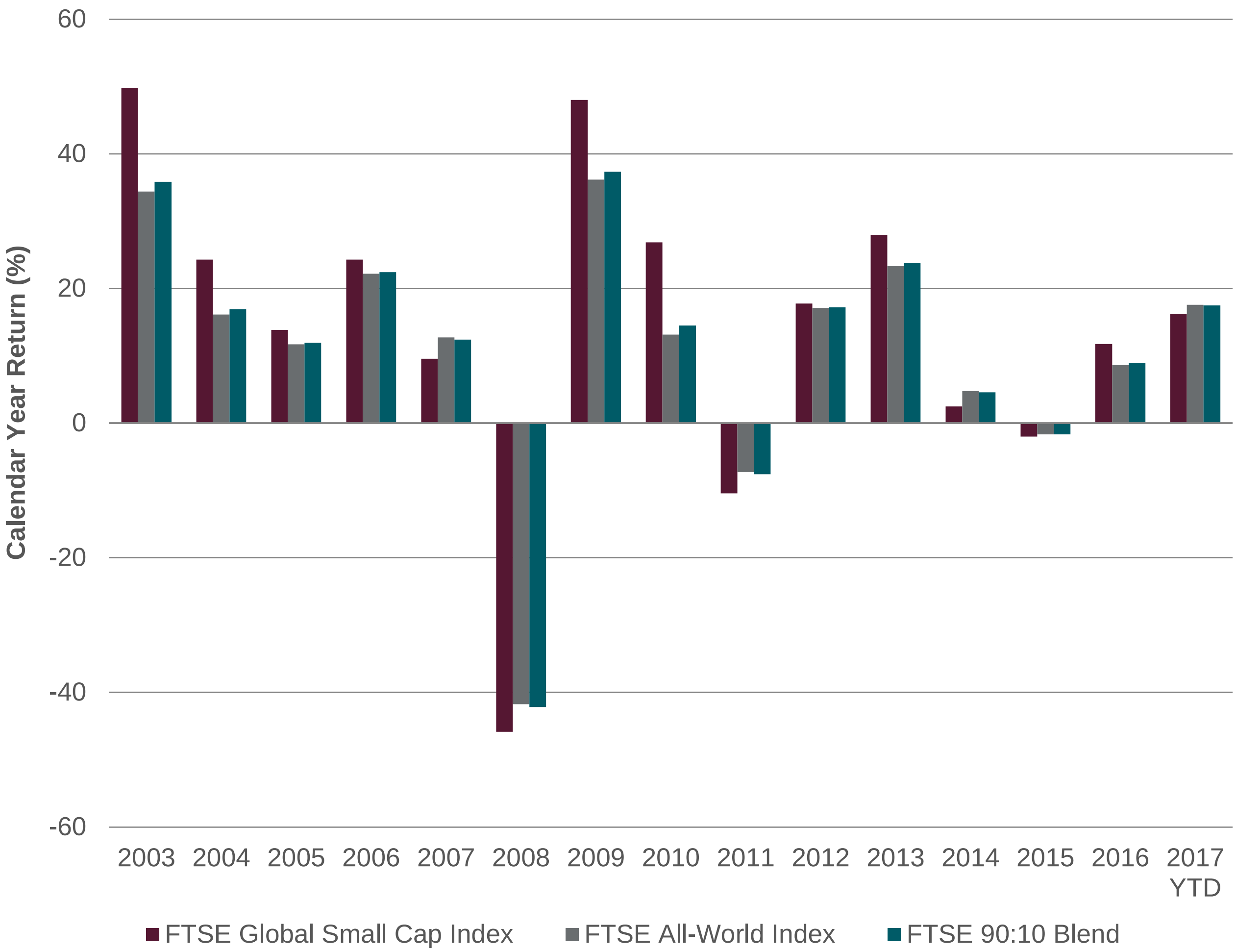
[5] See, for example, Burton, J., "The Case for Buying Small-Cap Foreign Stocks," 2016, *Wall Street Journal*, February 7.

[6] The 90:10 weighted blend was rebalanced monthly; all computations based on monthly data unless otherwise indicated.

Small caps have continued to outperform during calendar years when the FTSE All-World Index had relatively strong positive returns (2012, 2013 and 2016) and underperform when the large cap index had relatively low returns (2014) or lost value (2015). Year to date at the end of September 2017, however, the FTSE All-World Index's return is significantly higher than in recent years, with small caps slightly behind.

Our hypothetical allocation to a 90:10 blend of the stocks contained in the FTSE All-World and FTSE Global Small Cap Indexes would have performed better than a 100% allocation to global large caps in the FTSE All-World Index in nine of the fifteen yearly periods evaluated.

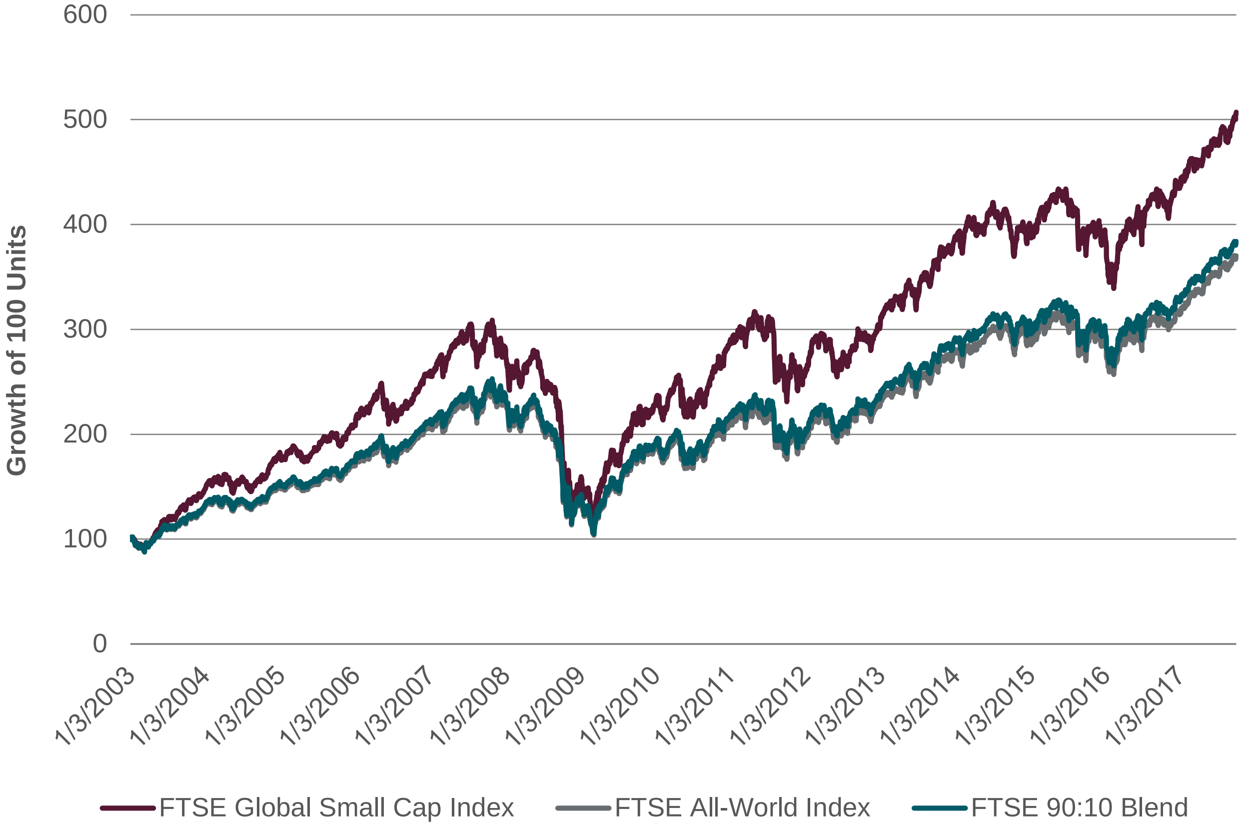
Figure 1. Calendar year returns of the FTSE All-World Index, FTSE Global Small Cap Index and simulated 90:10 blend, 2003–2017 (YTD)



Sources: FTSE Russell and MPI Stylus; data as of September 29, 2017. Past performance is no guarantee of future results. Returns of the 90:10 Blend are simulated. Other index returns shown reflect hypothetical historical performance prior to index launch. All data in USD. Please see the final page for important legal disclosures.

On a cumulative basis, the FTSE Global Small Cap Index has outperformed the FTSE All-World Index since 2003. Figure 2 charts the growth of 100 units of the FTSE Global Small Cap Index beginning in 2003 through the end of September 2017 by which date the original 100 units would have grown to 507. This compares favorably to the FTSE All-World Index, which would have grown to approximately 370 units over the same period. Our blended 90:10 portfolio, which would have included a mix of both index-based products, would have grown to approximately 384.

Figure 2. Hypothetical growth of 100 Units of the FTSE All-World Index, FTSE Global Small Cap Index and simulated 90:10 blend, from 2003–September 29, based on daily data



Sources: FTSE Russell as of September 29, 2017. Past performance is no guarantee of future results. Returns of the 90:10 Blend are simulated. Other index returns shown reflect hypothetical historical performance prior to index launch. All data in USD. Please see the final page for important legal disclosures.

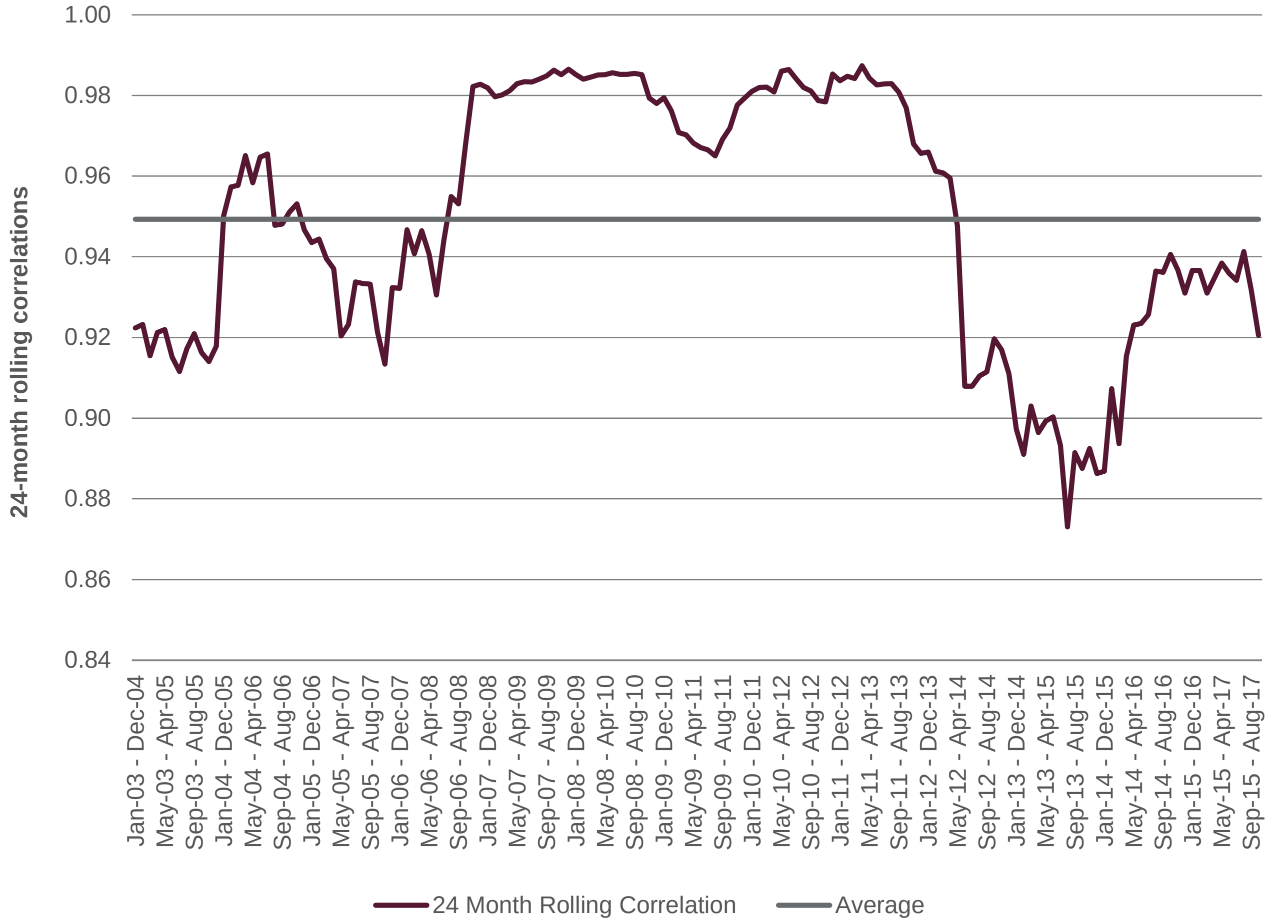
Diversification

Correlation

As the global financial crisis gripped equity markets in 2008, the return patterns among many asset groupings including stocks, industries, countries, etc., converged. Whether assets were perceived as being risky (stocks, mortgage-related instruments) or non-risky (cash, certain fixed income instruments) was all that mattered. As a result, correlations between many asset classes touched historic highs, near 1.0 – meaning they were all moving in a similar direction and at roughly the same rates of change. The global small cap index became more highly correlated with the global large cap index during this time period, although they were never perfectly correlated. As shown in Figure 3, subsequently correlations between the global small cap index and the global large cap index declined to new lows, particularly in 2015, levels not observed since data for both the FTSE All-World Index and the FTSE Global Small Cap Index became available in 2003.

Correlations increased beginning in 2016 but still remain below the high levels recorded during the crisis; also below the average correlation of 0.95 over the entire sample period. Correlations as of September 2017 are similar to those observed in the pre-crisis years and may reflect a return to global trends driving large caps and local trends driving small caps. If a lower-correlation environment continues, small caps should again provide an enhanced level of performance diversification for the traditional large cap portfolio.

Figure 3. 24-month rolling correlations of the FTSE Global Small Cap Index to the FTSE All-World Index, 2003–September 2017, based on USD total monthly index returns

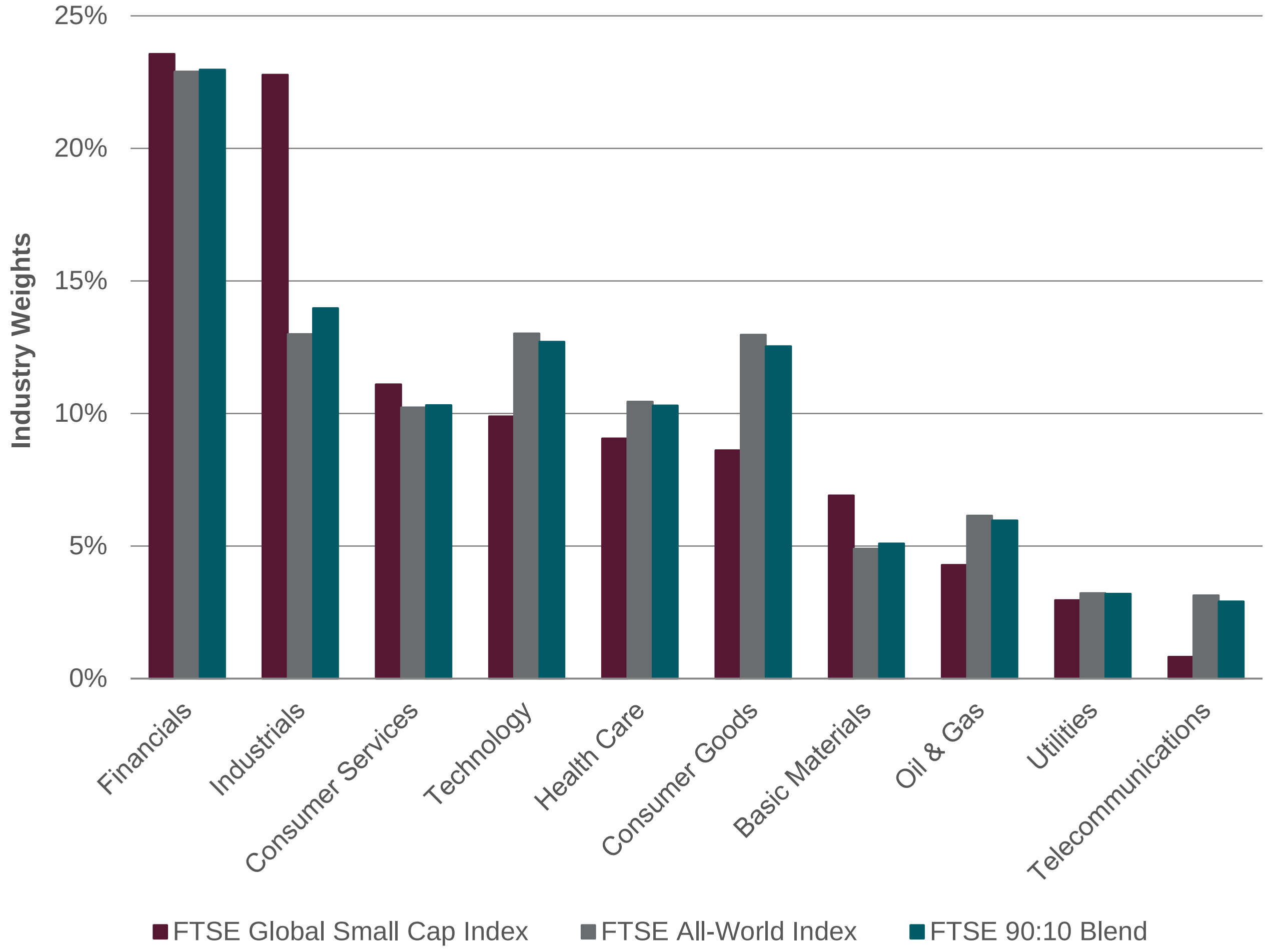


Sources: FTSE Russell and MPI Stylus as of September 29, 2017. Past performance is no guarantee of future results. Returns shown reflect hypothetical historical performance prior to index launch. All data in USD. Please see the final page for important legal disclosures.

Industries

In addition to their potential for diversifying traditional large cap portfolios, small caps have also historically provided industry exposures that differ from those of large caps. While small cap is often thought of as the realm of cutting-edge technology start-ups, in fact many small cap companies worldwide exist to serve larger companies. Suppliers to the airline, auto and other manufacturing industries make up a substantial portion of the asset class, as is observable in the concentration in the Industrials Industry of the FTSE Global Small Cap Index. Figure 4 shows the differences in ICB® Industry composition of the FTSE Global Small Cap Index and the FTSE All-World Index. The Industrials, Consumer Services, Financials and Basic Materials Industries make up 64.4% of the FTSE Global Small Cap Index, a combined overweight of 13.3% against the same Industries in the FTSE All-World Index – with most of that difference coming from Industrials. Technology in the small cap index is, perhaps surprisingly, underweight relative to large cap by approximately 3.1%.

Figure 4. ICB Industry weights for the FTSE Global Small Cap Index, FTSE All-World Index and simulated 90:10 blend

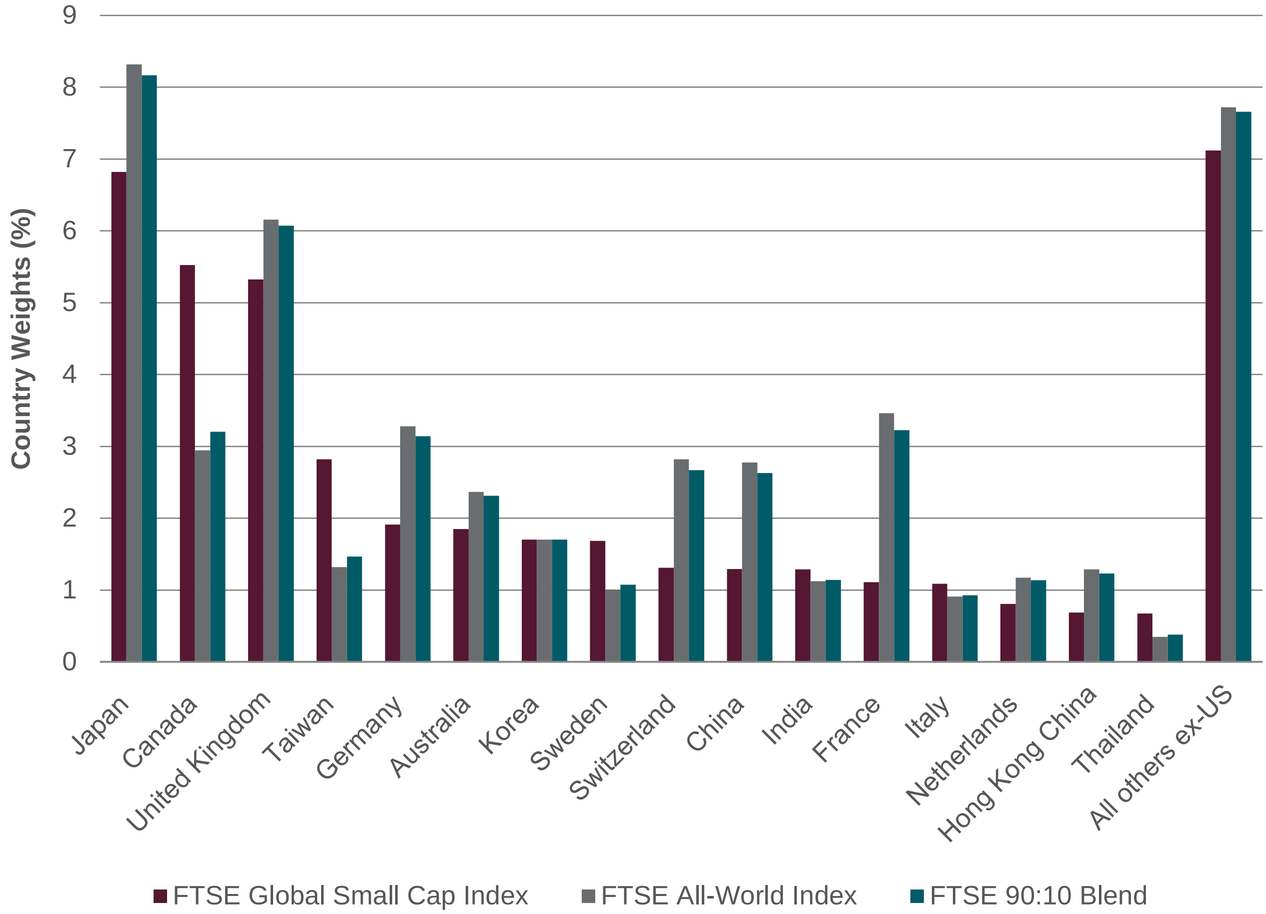


Sources: FTSE Russell as of September 29, 2017. Composition of the 90:10 Blend is simulated. All data in USD.

Countries

Small caps come from every corner of the world, including both developed and emerging countries. While countries like the US, UK and Japan spring to mind as having well-developed equity markets with companies of all sizes, others, like South Korea, China and India, offer a diversity of small cap companies. These can be important components of any broad-based global small cap index. Relative to the FTSE All-World Index, the FTSE Global Small Cap Index is underweight some of the largest developed markets, e.g., the UK, Japan and Germany; but it offers larger exposures to emerging markets like Taiwan, India and Thailand (Figure 5). Perhaps most importantly, allocating to small caps allows an investor to gain complete exposure to a country's equity market. Our hypothetical blended portfolio would smooth out the distribution of country weights, potentially better aligning desired exposures to those achieved within an investor's portfolio.

Figure 5. Country weights for the FTSE Global Small Cap Index, FTSE All-World Index and simulated 90:10 blend.[7] The US was excluded for scale, but as of 9/29/2017 it represented 57% of the FTSE Global Small Cap Index and 51.2% of the FTSE All-World Index



Sources: FTSE Russell as of September 29, 2017. Composition of the 90:10 Blend is simulated.

Volatility, valuations and other fundamental considerations

Volatility and risk

Small caps have historically been more volatile than their large cap counterparts, which comes as no surprise. As shown in Table 1, the returns of the FTSE Global Small Cap Index have an annualized standard deviation of 17.3%, as compared to 15.0% for the FTSE All-World Index over our sample period of January 2003-September 2017. But the true test is whether there can be a sufficient reward for the additional risk of small caps – and we find evidence that historically, this has been the case. The Sharpe ratio (risk-adjusted return) for the FTSE Global Small Cap Index over this period was 0.66, and for the FTSE All-World Index, 0.60. Our hypothetical 90:10 Blend shows the Sharpe ratio improving slightly, to 0.61. So while small caps are generally more volatile, over the long term they have the potential to increase the risk-adjusted returns of a global equity index.

[7] The countries represented were the largest weightings in the FTSE Global Small Cap Index; all remaining countries were aggregated in the "All-Others ex-US" grouping.

Table 1. Selected risk and size characteristics for the FTSE Global Small Cap Index, FTSE All-World Index and simulated 90:10 blend, from January 2003 to September 2017

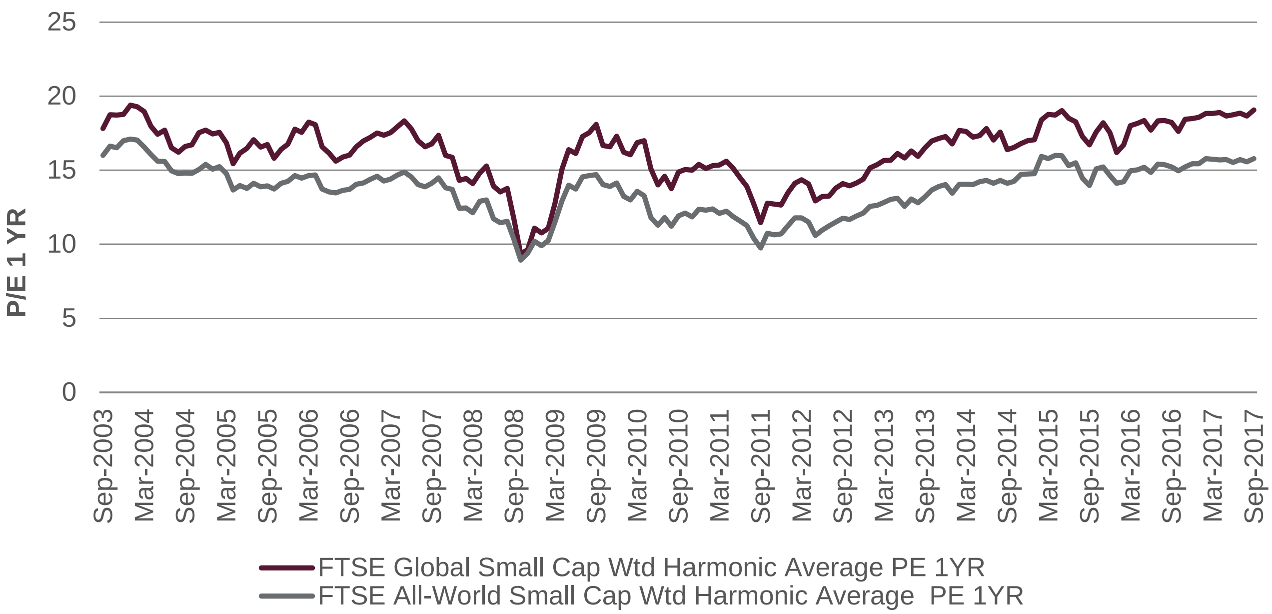
January 2003-September 2017	FTSE Global Small Cap USD	FTSE All-World USD	FTSE 90:10 Blend
Annualized StdDev, %	17.3	15.0	15.2
Annualized Return, %	11.8	9.5	9.7
Sharpe Ratio	0.66	0.60	0.61
Weighted Average Market Cap as of 9/27/2017 (billions USD)	3.36	108.48	97.97

Sources: FTSE Russell as of September 29, 2017. Past performance is no guarantee of future results. Returns of the 90:10 Blend are simulated. Other index returns shown reflect hypothetical historical performance prior to index launch. All data in USD. Please see the final page for important legal disclosures.

Valuation

The valuation of small caps, referred to herein by using price-to-earnings (P/E) with one-year I/B/E/S forecasted earnings, have historically tended to been higher than global large caps. That being said, valuations on small caps took a dramatic plunge downwards around the beginnings of the Great Recession in 2008. However, fast-forward one year, and small cap valuations were back near their all-time high levels. Setting aside this extraordinary event, small cap valuations have generally remained directionally consistent with large caps. Over the entire period evaluated in Figure 6, the median one-year P/E for the FTSE Global Small Cap Index was 16.7, as compared to 14.0 for the FTSE All-World Index. After a sustained market recovery and expansion, small cap valuations have exceeded their pre–Great Recession peak of 2007. As the global economy continues to show improvement, it is unclear whether generally positive market sentiment will support new valuation highs going forward.

Figure 6. Weighted harmonic average one-year P/E for the FTSE Global Small Cap Index and the FTSE All-World Index, on a quarterly basis.



Source: FTSE Russell, FactSet. Data as of October 24, 2017. Past performance is no guarantee of future results. Please see the final page for important legal disclosures.

Conclusions

Just as the earth doesn't stop at a flat edge, the world's equity universe doesn't end with large companies. There are large numbers of small cap stocks worldwide, and a great many products exposed to this asset class, that can be used to improve the diversity of an equity portfolio. Small cap companies hail from countries in all regions of the world, both developed and emerging, and tend to be more closely tied to their local economies than large caps. There is the occasional tech start- up, but more often it's a parts manufacturer that made a piece of the airplane you fly, the car you drive, or the smart phone you can't leave home without. The mix of characteristics and opportunities for growth that small caps may offer should put them squarely on a global investor's equity map for further exploration.

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