



Foreign Small-Cap Equity: A Core 401(k) Asset Class

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SUMMARY

Small-cap equity and foreign equity – two decades after gaining widespread acceptance in defined contribution (DC) plans, both asset classes remain surprisingly restrictive to participants. For most DC plans, small-cap equity options are limited to domestic stocks, while foreign equity options focus on large-cap companies – ultimately leaving “foreign small-cap stocks” out of the mix. As a result, over half (54%¹) of all global equities (on a security count basis) are largely ignored when it comes to asset class design.

Expanding the investable universe by offering a foreign small-cap strategy enhances a participant’s diversification potential while maintaining assets in a familiar investment type – equities. The asset class has consistently offered the greatest diversification (lowest correlation) amongst domestic and foreign large-, mid-, and small-cap universes. Furthermore, foreign small-cap has consistently maintained relatively higher-quality portfolio characteristics (i.e. margins, leverage, growth, valuations) and stronger risk-adjusted performance. Versus US small-cap and foreign large-cap equity, absolute risk levels (standard deviation) for foreign small-cap are similar and, in some periods, even lower.

Today, many 401(k) plans remain significantly over-exposed to domestic stocks, both in terms of number of offerings and percentage of plan assets. As advocates for global diversification, we believe a plan that includes a foreign small-cap equity strategy or simply utilizes one global small-cap strategy can benefit both plan sponsors and participants. In this paper, we discuss the extensive positive attributes of the foreign small-cap asset class alongside the associated risks. We also explore the various types of foreign small-cap investment strategies and highlight some of the factors a plan sponsor should consider when hiring a manager.

THE GLOBAL OPPORTUNITY SET

Table 1.0 (see following page) illustrates global stock distribution by region (domestic / foreign) and capitalization (large, mid, small). The data illustrates the significance of the foreign-small cap universe on a global scale. Even after generously addressing liquidity concerns – by eliminating stocks with a market cap of less than \$100 million – foreign small-cap equity still accounts for 53.7% of all global stocks by security count. From a pure “small-cap” perspective, foreign stocks account for nearly three-quarters (74%) of the global universe by security count.

Please note the following references associated with this paper:

Region: Unless otherwise noted, we utilize the term “global” to illustrate the combination of US, Non-US Developed, and Emerging Markets, as defined by Russell®; and the term “foreign” to illustrate the combination of Non-US Developed and Emerging Markets, as defined by Russell®.

Capitalization: In order to maintain focus, this paper highlights foreign small-cap equity, an asset class often underrepresented in defined contribution plans. Foreign mid-cap equity is also underrepresented in many defined contribution plans, though to a lesser extent.

Start Date for Performance-Related Statistics: Data is illustrated beginning on January 2001. This date is reflective of the International Accounting Standards Board (IASB) adoption (2001) of the first iteration of International Financial Reporting Standards (IFRS). As indicated in the Guide to International Financial Reporting Standards (September 2009), this offered the possibility of a single set of high-quality accounting standards that could be used by all nations – improving the reliability, comparability, and transparency of data for use by information professionals.

Start Date for Holdings Characteristics: Data is illustrated from January 2002, the start date of Russell® collection.

Other Equity Types: Unless otherwise noted, we utilize the term “other equity types” to represent the following six asset classes: domestic large-cap, mid-cap, small-cap and foreign large-cap, mid-cap, and small-cap.

Keeping this data in mind, consider the mismatch that exists when a 401(k) plan offers multiple domestic small-cap options (value, blend, growth), yet does not offer a foreign small-cap option. This translates into two or more domestic managers targeting a pool of 1,833¹ securities (US small-cap) while a separate pool of 5,160¹ securities (foreign small-cap) remains untapped.

The sheer size of the foreign small-cap universe, from a security count perspective, also plays to the advantage of the “active” foreign (vs. domestic) small-cap manager for multiple reasons. First, the foreign manager has a nearly 3:1 advantage when it comes to choosing companies that best align with their investment strategy, thus improving their ability to outperform (theoretically). Second, the universe size and its widespread geographical span limits the market’s efficiency – creating a better environment for a manager to generate alpha. With over 5,000 securities spread across the world, maintaining adequate analyst coverage can be costly in terms of both time and dollars. Unlike large-cap managers who can take advantage of a sizable asset base to fund research, a small-cap manager’s revenue is limited due to the capacity constraints of owning small-cap companies.

¹ Excludes stocks < \$100 million market capitalization.

Minimal analyst coverage therefore provides an active manager a better opportunity to uncover hidden value.

Table 1.0: Global Equity Holdings (as of 12/31/14)

Geography / Market Cap Range	Market Cap Range	# of Stocks	% of Total Stocks
US Large ²	> \$14 bx	312	3.2%
US Mid ²	\$2.25 bx - \$14 bx	800	8.3%
US Small ²	\$100 mx - \$2.25 bx	1,833	19.1%
Foreign Large ³	> \$14 bx	294	3.1%
Foreign Mid ³	\$2.25 bx - \$14 bx	1,217	12.7%
Foreign Small ³	\$100 mx - \$2.25 bx	5,160	53.7%
Global Total		9,616	100.0%

² Data based on stocks within the Russell 3000® Index (excludes stocks with market cap < \$100 million).

³ Data based on stocks within the Russell Global ex US® Index (excludes stocks with market cap < \$100 million).

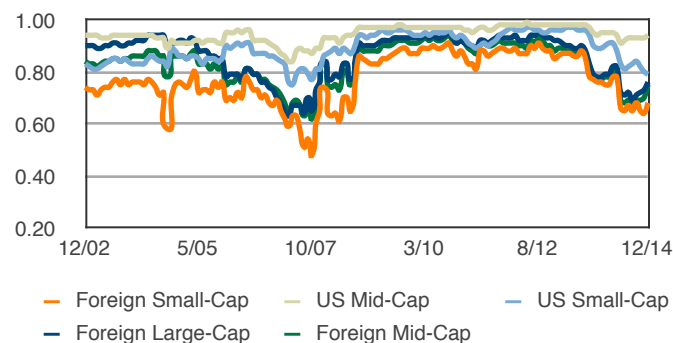
Data Source: Russell®

DIVERSIFICATION

Relative to domestic options, foreign portfolios offer additional diversification benefits, including diversity of country, currency, and economy. Consider that the Russell Global ex-US Small-Cap® Index currently has exposure to 45 countries and 33 currencies. Amongst foreign stocks, small-cap has consistently provided the best diversification opportunity relative to US large-, mid-, and small-cap equities (*lowest correlation, as measured by “r”*).

Of particular note is the correlation of foreign small-cap equity relative to the S&P 500 Index (*often considered the domestic large-cap proxy*) as detailed in the correlation chart below. Since January 2001, the average 2-year correlation (*r*) has been 0.77, providing the best diversification opportunity amongst equity types 100% of the time. We emphasize this comparison as domestic large-cap stocks comprise the highest equity allocation amongst 401(k) participants – therefore implying this may be the best area from which to re-allocate assets.

Correlation (r) vs. US Large-Cap (S&P 500 Index)
Rolling 2-year Periods (monthly)



Data Source: MPI Stylus

Indices utilized (left to right): Russell Global ex-US Small-Cap® Index, Russell Mid-Cap® Index, Russell 2000® Index, Russell Global ex-US Large-Cap® Index, Russell Global ex-US Mid-Cap® Index.

Country, currency, and economic exposure are by no means the only factors contributing to foreign small-cap diversification, especially as

compared to foreign mid-cap and large-cap, which share similar credentials. Limited small-cap analyst coverage (*as previously mentioned*) certainly plays a role, as does the influence of globalization, which impacts small-cap equities differently than large-cap equities.

Large-cap firms are heavily influenced by globalization, defined as the increasingly integrated world economy through practices including foreign business development, outsourcing, supply chain management, and foreign direct investment. As a result, stocks of these companies, regardless of country or currency, often tend to move in similar directions, ultimately resulting in higher correlation between them.

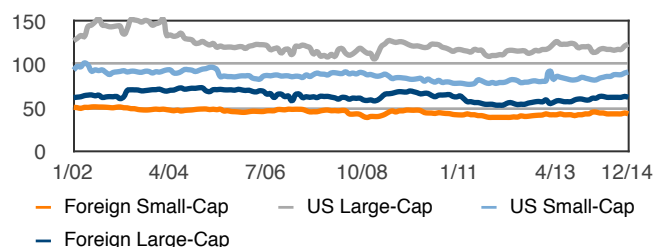
Globalization tends to have less influence on small-cap companies. Due to their size, many small-cap companies conduct a majority of their business within their domestic and neighboring economies. As a result, these companies are more insulated from many of the global issues impacting larger companies. Local factors including government policy, economic strength, consumer and business practices, and demographics have a greater influence on stock price movement.

QUALITY

Perhaps the most striking feature of foreign small-cap stocks is the relative quality of the companies in the universe (*see charts below*). A solid case could be made that the asset class has and continues to offer the healthiest fundamentals in terms of leverage, margins, earnings potential, and valuations amongst all equity types.

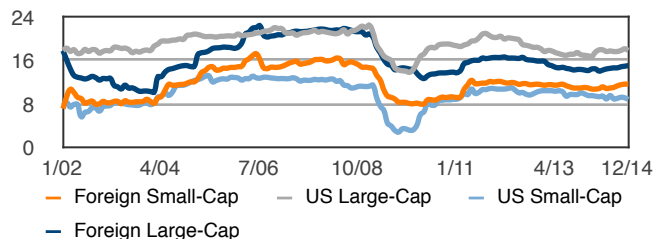
One of the contributing factors to the quality of foreign small-cap has been financial leverage restraint. Large global firms and many US small-cap companies accumulated debt to fund growth during the credit bubble. Meanwhile, foreign small-caps, many of which didn't exist during the first half of the credit bubble (*1990s*), relied on self-funding and/or small financial institutions with strict lending policies.

Debt To Equity (%) ⁴



While many larger companies, especially those in the US, have generated higher margins, they've done so at the risk of carrying much greater leverage. For example, US large-cap stocks have averaged a 62% return-on-equity premium (*average of monthly premiums*) over foreign small-cap equities during the past 13 years, yet have done so with nearly three times the leverage (*average monthly debt-to-equity premium = 2.73x*). Meanwhile, foreign small-cap stocks have averaged a solid return-on-equity premium (20%) relative to US small-cap stocks, yet done so with just over half (52%) of the leverage.

Return On Equity: 1 Year ⁴

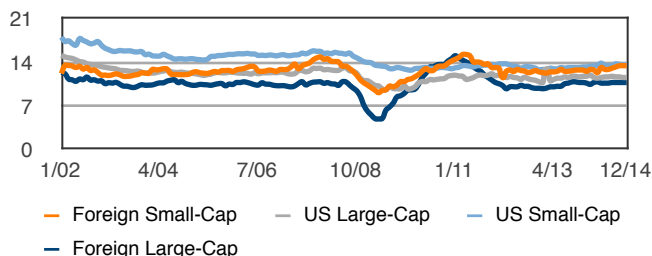


⁴ Data Source: Russell®

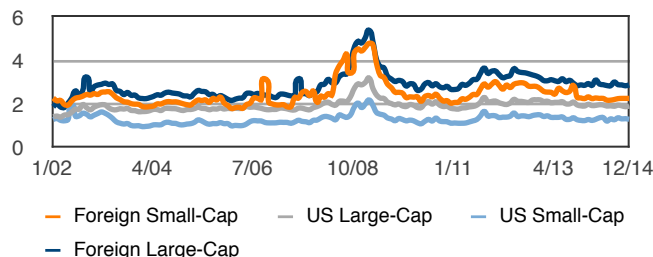
Indices utilized (left to right): Russell Global ex-US Small-Cap® Index, Russell 1000® Index, Russell 2000® Index, Russell Global ex-US Large-Cap® Index.

From a forward-looking earnings perspective, US small-cap maintained a superior long-term growth outlook relative to foreign small-cap until 2010, when growth projections began to align.

Projected Long-Term Earnings Growth (I/B/E/S Means): 1 Mos Ago (%) ⁴



Dividend Yield (%) ⁴



SIZE OF UNIVERSE

Until now, we've discussed the favorable characteristics of foreign small-cap stocks by analyzing market indices only. One final thought is to consider how the vast size of the foreign small-cap equity universe can play to the advantage of an active manager.

An active investment manager faces purchase constraints based on their target holdings range and investable universe security count. For example, a US large-cap manager building a 50 stock portfolio is constrained by the 312 stocks (defined as > than \$14 bx as of 12/31/14) in the universe – which would essentially require them to hold one of every six stocks. Their ability to identify appropriate stocks and differentiate themselves from the benchmark based on their strategy is rather limited. Now consider the active foreign small-cap manager who has over 5,000 securities to choose from. A manager of a 50 stock portfolio would be required to hold only one of every 100 securities. Their ability to identify appropriate stocks has increased over 16 times. For a plan sponsor seeking a high quality investment manager, the larger pool of securities available for investment (relative to all equity types) increases the relative quality potential.

PERFORMANCE AND RISK (see references box on front page for purpose of 1/1/01 start date)

Foreign small-cap stocks have generated consistently strong absolute and risk-adjusted returns relative to other equity types over time. Since January 2001, their annualized return (9.2%) out-performed all other equity types. In particular, they out-distanced US small-cap stocks by over 100 bps and foreign large-cap stocks by nearly 400 bps. This superior performance didn't come at the expense of higher risk, as one might expect. Instead it was achieved with similar risk levels (2% less than US small-cap, 5% more than foreign large-cap). These figures translate into an information ratio (annlzd return divided by annlzd standard deviation) of 0.48. This easily outdistances US large-cap (0.29), foreign large-cap (0.28), and US small-cap (0.41). The information ratio for US mid-cap (0.51) was slightly higher and foreign mid-cap (0.43%) was slightly lower than that of foreign small-cap.

Table 1.2: Global Equity Statistics

Date: 1/1/2001 - 12/31/2014	Annlzd Return (%)	Annlzd Std Deviation (%)	Information Ratio
US Large-cap	4.38	14.87	0.29
US Mid-cap	8.95	17.41	0.51
US Small-cap	8.16	19.83	0.41
Foreign Large-cap	5.23	18.44	0.28
Foreign Mid-cap	7.97	18.56	0.43
Foreign Small-cap	9.22	19.39	0.48

Data Source: MPI Stylus
Indices utilized (top to bottom): Russell Top 200® Index, Russell Mid Cap® Index, Russell 2000® Index, Russell Global ex-US® Large-Cap Index®, Russell Global ex-US Mid-Cap® Index, Russell Global ex-US Small-Cap® Index.

Considering the current long-term de-leveraging cycle and the threat of rising interest rates, foreign small-cap companies may be best positioned to manage through a volatile environment.

VALUATION

The comparison to US stocks, in particular, gains further credence when considering valuations (see Table 1.1). Foreign small-cap equity has traded at a discount to US small-cap 100% of the time over the past 13 years in terms of earnings, book value, cash-flow, and sales. This equates to four valuation measures, each with 156 monthly readings, where this discount has held true. The average discounts ranged from 19% on earnings to 39% on cash-flow. Today, foreign small-cap equity trades at a 21% discount on earnings and a > 30% discount on book value, cash-flow, and sales.

Table 1.1: Global Equity Valuations ⁴

	Time Period	US Large-Cap	US Small-Cap	Foreign Large-Cap	Foreign Small-Cap
Price/Earnings (x) ⁵	Average ⁶	15.0	16.4	13.1	13.3
	As of 12/31/14	17.2	18.8	13.9	14.8
Price/Book (x)	Average ⁶	2.6	2.0	1.8	1.5
	As of 12/31/14	2.8	2.3	1.8	1.5
Price/Cash Flow (x)	Average ⁶	12.0	15.2	7.7	9.2
	As of 12/31/14	12.9	18.0	8.8	10.8
Price/Sales (x)	Average ⁶	1.5	1.2	1.1	0.8
	As of 12/31/14	1.9	1.6	1.1	1.0

⁵ Price / Earnings – I/B/E/S 1 Year Forecast EPS.

⁶ Average = Monthly data from 1/2002 - 12/2014.

DIVIDEND YIELD

One additional characteristic to consider is dividend yield (see chart on top of following column). By practice, foreign companies are more apt to pay dividends vs. domestic firms. The long-term average yield of foreign small-cap (2.5%) is nearly double that of US small-cap (1.3%). While a portion of the asset class' yield premium is driven by the previously discussed discounted valuations, the larger contributor is the percentage of firms (more than double the US) that pay dividends. Foreign companies find dividends an attractive and conservative avenue to enhance shareholder return. Higher dividend yields may also help to cushion downward pressure during weak markets (note that the payment of a dividend does not necessarily equate to quality).

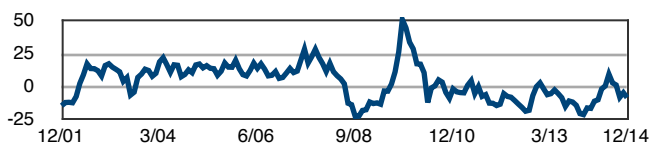
⁴ Data Source: Russell®

Indices utilized: Foreign Small Cap (Russell Global ex-US Small-Cap® Index), US Large-cap (Russell 1000® Index), US Small-cap (Russell 2000® Index), Foreign Large-cap (Russell Global ex-US Large-Cap® Index).

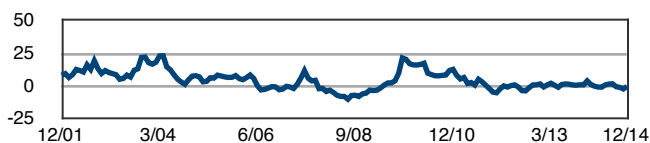
To illustrate the consistency of these relationships, we provide rolling 1-year excess performance, risk, and information ratio charts below.

Foreign Small-Cap Equity Excess Performance (rolling 1-year)

- out-performed US Small-Cap 60% of the time



- out-performed Foreign Large-Cap 71% of the time



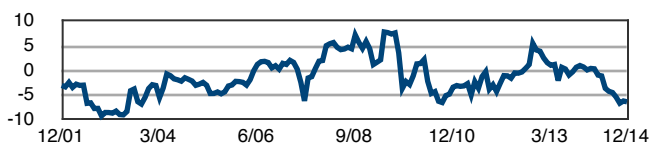
Data Point: Performance delta
Data Source: MPI Stylus

From a risk perspective the asset class is often incorrectly perceived as the most volatile amongst equity types because of the false belief that foreign stocks must be riskier than US stocks and small-cap stocks must be riskier than large-cap stocks. In our view, these are just two of many factors that contribute to risk.

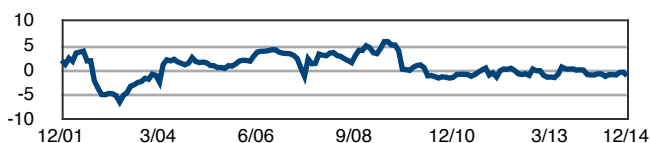
In actuality, foreign small-cap equity has experienced lower risk than US small-cap equity nearly two-thirds of the time. In fact, the only period of sustained higher risk occurred from late 2007 to mid 2009 when markets traded on perceived risk rather than fundamentals.

Foreign Small-Cap Equity Excess Standard Deviation (rolling 1-yr)

- less risky than US Small-Cap 64% of the time



- less risky than Foreign Large-Cap 40% of the time



Data Point: Standard deviation delta
Data Source: MPI Stylus

The contributors to favorable volatility levels include many of the factors previously mentioned (i.e. minimal analyst coverage / under-followed by Wall Street, market quality, security count, and country, currency, and economic diversification). Though there will likely be growth (albeit slow) in security analyst coverage in the future, we expect these factors to largely remain in place in the coming years.

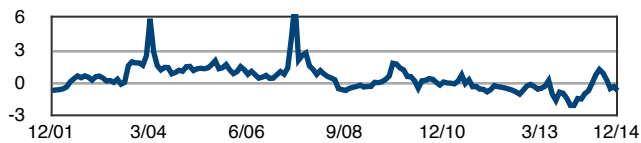
One additional risk factor of note is size-of-loss on a percentage basis, which doesn't necessarily equate to higher standard deviation. This factor unfortunately presents a challenge to foreign small-cap equity. Despite the quality of the asset class, the misperception of foreign small-cap volatility can leave the asset class at risk for greater losses than other equity types when markets flounder. For example, consider rolling 1-year performance losses during the market crisis from late 2007 through early 2009. Foreign small-cap equity sustained the largest 1-year loss (-56.5% as of 10/08) amongst equity types. In comparison, foreign large-cap (-51.8% as of 2/09) and US small-cap

(-42.6% as of 4/09) losses had a smaller negative impact. While this threat persists whenever the market trades on perception, we don't believe this should be a deterrent to adding this asset class.

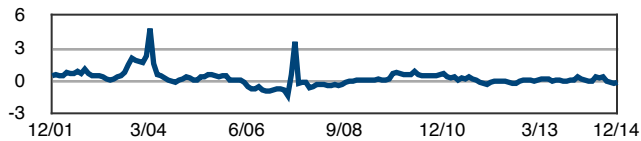
Finally we illustrate the relatively strong consistency of excess information ratio in the graphs below.

Foreign Small-Cap Equity Excess Information Ratio (rolling 1-year)

- out-performed or matched US Small-Cap 65% of the time



- out-performed Foreign Large-Cap 76% of the time

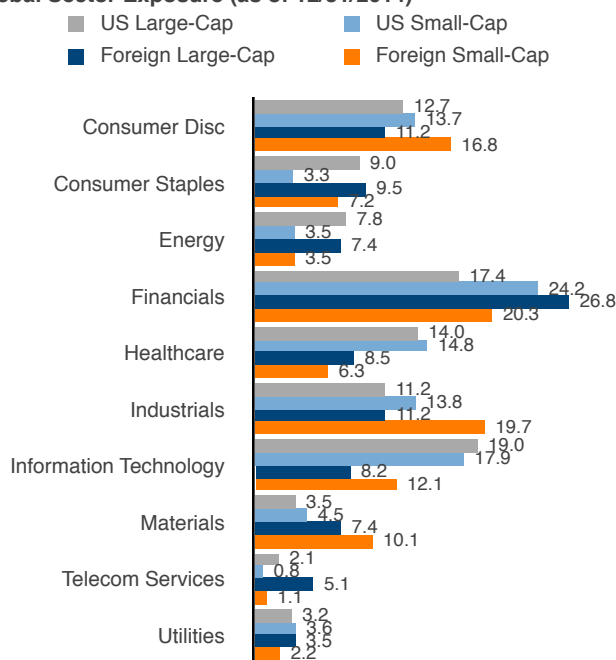


Data Point: Information ratio delta
Data Source: MPI Stylus

SECTOR STRUCTURE

Foreign small-cap stocks currently exhibit a somewhat unique sector allocation structure, as well, providing further diversification opportunity. Nearly one-third of the index is allocated to industrials and materials, sectors that will likely benefit from continued infrastructure buildout in emerging markets. This combined allocation is over 10% higher than foreign large-cap and US small-cap indices and 15% greater than the US large-cap index. The foreign small-cap index also maintains a lower financials weighting than US small-cap and foreign large-cap indices. Multiple factors including sovereign developed market debt levels and further sector regulation will likely hamper this sector's growth in the future. Additionally, roughly one-third of the foreign small-cap sector weighting is allocated to emerging markets, a much stronger region (relative to developed markets) for financials.

Global Sector Exposure (as of 12/31/2014)



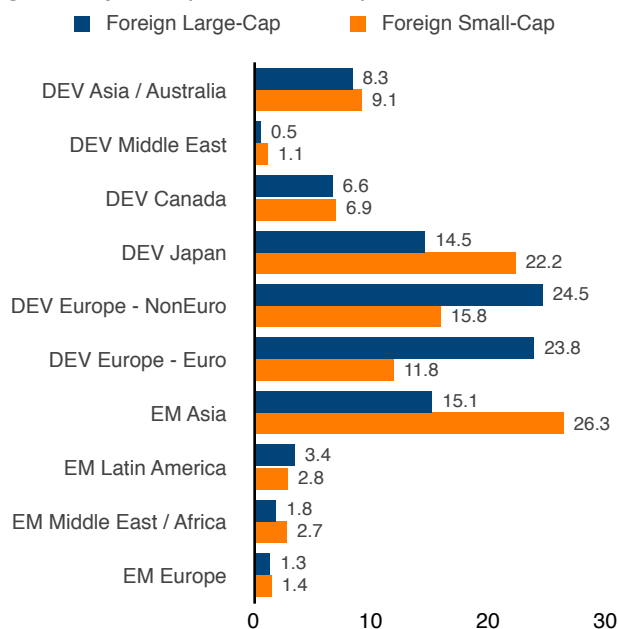
Data Source: Morningstar Direct®
Indices utilized (left to right): Russell 1000® Index, Russell 2000® Index, Russell Global ex-US Large-Cap® Index, Russell Global ex-US Small-Cap® Index.

REGIONAL / COUNTRY STRUCTURE

In our view, foreign small-cap country allocation currently offers a more favorable investment structure relative to foreign large-cap, in light of our outlook for poor short- and long-term economic growth in developed markets relative to emerging markets.

From an index capitalization perspective, the Russell Global ex-US Small-Cap® Index has a 33.2% allocation to emerging markets (12/31/14), nearly 12% greater than the foreign large-cap index (21.6%). We maintain our stance that emerging markets (as a whole) will continue to be the world's growth engine for years to come. Considering the strong quality credentials of companies in the region (see Table 1.4) and the added diversification that the larger emerging market weighting provides, we believe this allocation to be more favorable for participants long-term. We see further justification for the allocation considering the emerging market overweight is driven by allocations to the healthier economies of Asia, the Middle East, and Africa, rather than the debt-laden European region.

Regional Exposure (as of 12/31/2014)



Data Source: Russell®
Indices utilized (left to right): Russell Global ex-US Large-Cap® Index, Russell Global ex-US Small-Cap® Index.

Considering the combined developed and emerging market European exposure, the foreign small-cap index also holds the lowest exposure (27.1%) to the areas where the aforementioned debt crisis and related-austerity measures are concentrated and will likely continue to cripple those economies for years to come. The large-cap benchmark still holds a 45.7% exposure to Europe, a painful 18.6% over-weight vs. the small-cap benchmark (27.1%). Specifically as it pertains to economies utilizing the Euro currency, the large-cap benchmark weight (23.8%) is over double that of the small-cap benchmark (11.8%).

One notable drawback to current country allocation is Japan, where the small- (18.6%) and mid- (17.3%) cap indices are over-weight relative to large- (12.4%) cap. Japanese economic growth continues to struggle amidst sovereign debt exposure and yen volatility.

IMPLEMENTING A STRATEGY

Is Participant Allocation Necessary?

Oftentimes, the consideration to add a foreign small-cap strategy to a 401(k) investment line up is countered with the statement “my existing foreign manager already has an allocation to small-cap”. In these cases, it is first vital to verify that this allocation actually exists, considering that the average foreign large-cap manager (as defined by Morningstar) maintains scant (2.2%⁷) exposure to small-cap securities. Two of the most prominent active international managers used in 401(k) plans, American Funds EuroPacific Growth and Harbor International, maintain no exposure (Source: Morningstar as of May 2015).

If the allocation does exist, it usually represents at most 10% of the foreign portfolio – essentially a capitalization weighted allocation. In this case, the participant’s ability to diversify their foreign holdings is restricted to a capitalization-based approach – one that assumes large-cap should represent 70-80% of a participant’s equity exposure, mid-cap 10-20%, and small-cap 5-10%.

For most plans, this contradicts their US equity structure, which tends to be offered as capitalization-specific portfolios (i.e. large, mid, and/or small). This scenario offers participants customized allocation by company size for US stocks yet restricts foreign stock allocation to a market capitalization based approach – one that our earlier research illustrates may not be the most prudent.

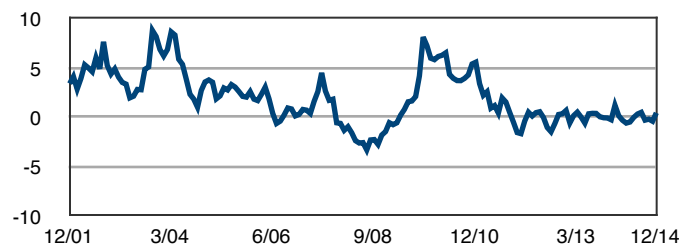
In fact, a simple mix that distributes foreign assets equally into large-, mid-, and small-cap has provided stronger returns vs. the market capitalization weighted multi-cap index with nearly identical risk over time (see Table 1.3). From a consistency standpoint (rolling 1-year - monthly), the equal-weighted portfolio has out-performed the capitalization-weighted portfolio 75% of the time.

Table 1.3: Portfolio Comparison (1/1/2001 - 12/31/2014)

Portfolio	Annldz Return (%)	Annldz Std Dev (%)	Information Ratio
Russell Global ex-US Large, Mid-, Small-cap® Index (equal-weighted) ⁸	7.50	18.62	0.40
Russell Global ex-US® Index (capitalization-based)	5.70	18.45	0.31

Performance - Rolling 1-year Excess Performance (%)

- Foreign “Equal” weighted⁸ Index out-performs Foreign “Capitalization”-weighted Index 75% of the time



Data Point: Performance delta

Data Source: MPI Stylus

⁸ 1/3rd Russell Global ex US Large-Cap® Index, 1/3rd Russell Global ex US Mid-Cap® Index, 1/3rd Russell Global ex US Small-Cap® Index

⁷ Morningstar mutual fund universe, Foreign Large Value, Foreign Large Blend, Foreign Large Growth, Oldest share class, Market Cap = Small + Micro, run on 5/10/15

It is also worth noting that most “passive” foreign strategies are managed to benchmarks with minimal to no small-cap exposure. These include MSCI EAFE and MSCI All-Country World ex-US index strategies.

Active vs. Passive

Over the past few years, a few firms have created passive international small-cap products. Should one favor a passive strategy, be aware that select factors including the sheer number of holdings in the universe, country specific trading factors, and liquidity may impact performance tracking error. As a result, we would suggest monitoring performance utilizing wider, yet still reasonable, tracking error ranges than those utilized for US-based options and foreign large-cap portfolios.

We, as a firm, prefer to utilize active management in this space. We believe the size of the universe provides investment managers with an ample pool of candidates from which to find the most appropriate stocks. The opportunity to create alpha is further strengthened considering the limited analyst coverage in this area.

Furthermore, we believe there will be a sizable alpha opportunity for active managers through country and currency selection in the coming years, as nations have begun to experience increasing economic divergence (i.e. debt-laden vs. fiscally minded; easing vs. constraining monetary policy; young vs. aging population).

Pool Constraints

The pool of foreign small-cap equity options is unfortunately limited. Lack of investor interest and the cost of actively managing a foreign option when capacity constraints exist have minimized the number of product launches. Similarly, the pool of foreign mid-cap and smid-cap portfolios is also slim. Oftentimes, foreign small-, smid-, and mid-cap managers are all combined in smid-cap universes to create large enough samples of managers to rank. For instance, Morningstar offers three foreign smid-cap categories – *Foreign Small/Mid Value*, *Foreign Small/Mid Blend*, and *Foreign Small/Mid Growth* – but no dedicated foreign mid-cap or small-cap categories. These limitations must be considered when analyzing performance vs. peer groups.

See *Pool Limitations Example* below:

Morningstar lists only 97 unique (*single share class*) active Foreign Small/Mid-cap mutual fund options (*May 2015*). While that in itself is a narrow universe, the pool quickly shrinks to only 58 by eliminating:

- multi-cap funds (20)
- sector funds (1)
- like-managed funds (3)
- non 401(k) available funds (1)
- closed funds (12)
- micro-cap funds (1)
- global funds (1)

Note: The pool of 58 mutual funds is down from 59 in our previous analysis (12/31/2012).

Still, one may consider the universe of 58 to be misleading (*to the high side*) considering four mutual funds are multi-manager products that utilize one or more strategies also available in other products. Furthermore, select teams manage multiple strategies within the pool indicating the potential for significant overlap. Considering these two factors, one may consider the actual pool to be closer to 50 mutual funds.

Even by expanding the list to include collective trusts, only a handful of unique managers would be added. For most plans a separate account would not be appropriate in this case, based on limited (if any) available assets to map.

Data Source: Morningstar Direct

These limitations must be considered when searching for the most appropriate manager, as the 58 noted vary by style, capitalization exposure, geography, and other factors. For example, one may desire an active foreign small-cap value manager that includes a minimum 10% allocation to emerging markets – yet a simple Morningstar screen of these characteristics indicates that there may only be four managers to consider. In our view, reviewing only four investment managers may be considered imprudent.

While it is prudent to set particular criteria in a search, one must be flexible in this asset class to ensure comfort with a particular team, philosophy, and strategy. Consider this factor when reviewing our thoughts on geography, style, and capitalization in the next three sections.

Developed, Emerging Markets, or a Mix

For most plans, we would suggest a strategy that can invest in both developed and emerging markets. These strategies allow for the maximum diversification potential considering country, currency, and economic exposure. In particular, we would prefer the allowable emerging market allocation range to be sizable considering the stronger long-term economic and corporate fundamentals of the region (*see Table 1.4*). Be aware, on a short-term basis, that this may create more sizable losses in a crisis where the market trades on perception rather than fundamentals.

Table 1.4: Portfolio Characteristics (as of 12/31/2014)

Portfolio	Russell 2000 [®] Index	Russell Developed ex-US Small-Cap [®] Index	Russell Emerging Markets Small-Cap [®] Index
Debt to Capital (%)	40.9	30.9	29.2
Debt to Equity (%)	91.0	45.0	40.0
Long-Term EGS (%)	13.5	12.4	15.5
ROE - 1 Year (%)	8.8	10.7	13.5
Price/earnings ratio (x) ⁹	18.8	15.3	13.8
Dividend Yield (%)	1.3	2.3	2.2

⁹ I/B/E/S 1 Year Forecast EPS

Data Source: Russell[®]

Unfortunately, most managers in the pool concentrate the majority of their holdings in developed markets. Only 12 of the 58 managers currently have an emerging markets allocation over 15% and only two have an allocation greater than 25%.

The regional exposure of the plan’s existing international strategies should also be considered when choosing the appropriate strategy.

Value, Blend, or Growth

For most plans, we would suggest the utilization of a blend strategy. Utilizing blend, when only one small-cap option is being added, allows the investment manager the largest pool of securities to choose from. It also avoids the large performance and volatility swings that can

occur between value and growth styles. As recently as December 2009, growth stocks out-performed value stocks (*Russell Global ex-US Small Cap® Index*) by nearly 25% over a 1-year period. Even greater disparity was illustrated during the 1-year period ended September 2001, when value beat growth by nearly 32%. Additionally, value and growth styles (*based on their construction methodology*) always exhibit more concentration than a blend style. Of course, an active investment manager does have the opportunity to dilute this concentration.

Small-, Smid-, or Mid-Cap

Small-cap allows for the greatest diversification (*away from other options in the plan*). That being said, exposure to mid-cap in a 401(k) plan is also minimal. The capitalization exposure of the plan's existing international strategies should be considered when choosing the appropriate strategy.

Benchmarking

Knowing the manager's investment strategy and portfolio guidelines is essential when comparing performance, performance-based statistics, and holdings characteristics to a benchmark and/or peer group (*as previously discussed*). The wide variety of foreign small-cap investment managers coupled with the small size of the available manager pool may inadvertently influence an investment committee decision unless particular care is taken in this process.

Consider that the 58 investment managers in our study utilize 18 unique benchmarks – oftentimes influenced by their style, capitalization, and regional guidelines. As with all managers, it is important to consider whether the benchmark properly aligns with the guidelines. For example, if a foreign small-cap manager's strategic allocation to developed markets and emerging markets is equally split at 50% each, a standard global benchmark which ranges from 15-25% emerging markets (*based on market capitalization*) may not be appropriate. In this case, the bias needs to be considered when evaluating the manager and/or a custom benchmark may need to be created for a more appropriate evaluation.

Summary

The investment world is rapidly evolving. Global secular changes are having a significant impact on the fundamental quality of many asset classes which, in turn, is pushing risk/return profiles into a state of flux. In many cases, asset classes once considered conservative are switching places with those once considered risky by comparison. While short-term results may remain vulnerable to perception, the long-term trend is clear.

As illustrated in this paper, foreign small-cap equity has proven to be a solid diversifier over time, while also exhibiting a competitive risk/return profile. The diversification advantage has been influenced by multiple factors, including minimal analyst coverage, limited influence from globalization, and country, currency, sector, and economic allocation. Meanwhile, the competitive risk/return profile has been significantly influenced by the consistently strong company fundamentals relative to other equity types over time.

Looking forward, the diversification factors outlined above all remain in place and in some cases – such as country allocation (*growth of emerging markets relative to developed markets*) – only stand to increase in potency. Similarly, if one believes as we do that company fundamentals drive long-term performance, the asset class continues to look favorable (*in a relative sense*) for the future, considering company characteristics such as leverage, margins, earnings potential, and valuations. Furthermore, the vast size of the universe

(*number of securities*) and global economic divergence (*over/underweight country, currency*) provide additional benefits to active foreign small-cap equity managers.

Too often, the defined contribution market is slow to respond to change – relying on what has taken place in the past to inform decision-making, rather than looking to the future. In the case of foreign small-cap equity, the strength of the asset class relative to other equity types has not only been successfully demonstrated in the past, but remains positioned for success in the future. As advocates for greater foreign exposure, we believe 401(k) plan sponsors should consider offering a foreign small-cap manager in their plan.

Please see following pages for more detailed performance, standard deviation, information ratio, and correlation statistics.

IMPORTANT DISCLOSURE

The views and opinions expressed in this document solely reflect those of Gosselin Consulting Group LLC as of May 2015. They should not be construed as investment advice or recommendation by Gosselin Consulting Group LLC and are subject to change without notice based on market and other conditions.

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Performance as of 12/31/2014	1-Year	3-Years (annualized)	5-Years (annualized)	10-Years (annualized)	Since 1/1/2001 (annualized)	Since 8/1/1996 ¹⁰ (annualized)
Russell Top 200® Index (US Mega-Cap)	13.25	20.28	15.01	7.33	4.38	8.01
S&P 500 Index (US Large-Cap)	13.69	20.41	15.45	7.67	5.27	8.54
Russell 1000® Index (US Large-Cap)	13.24	20.62	15.64	7.96	5.57	8.77
Russell Mid-Cap® Index (US Mid-Cap)	13.22	21.40	17.19	9.56	8.95	11.16
Russell 2000® Index (US Small-Cap)	4.89	19.21	15.55	7.77	8.16	8.97
Russell Global ex-US Large-Cap® Index	-3.06	10.00	5.35	5.89	5.23	6.26
Russell Global ex-US® Index	-3.08	10.09	5.53	6.02	5.70	6.26
Russell Global ex-US Mid-Cap® Index	-1.69	10.30	6.64	7.12	7.97	7.50
Russell Global ex-US Small-Cap® Index	-3.25	10.77	6.82	7.06	9.22	6.52
Russell Developed ex-US Large-Cap® Index	-3.44	11.57	6.19	5.50	4.77	6.13
Russell Developed ex-US® Index	-3.57	11.55	6.37	5.55	5.11	6.13
Russell Developed ex-US Mid-Cap® Index	-1.79	11.87	7.59	6.41	7.34	7.52
Russell Developed ex-US Small-Cap® Index	-4.77	11.37	7.82	6.00	8.18	6.49
Russell Emerging Markets Large-Cap® Index	-1.74	4.88	2.67	9.05	9.86	6.72
Russell Emerging Markets® Index	-1.47	5.59	3.02	9.12	10.45	6.47
Russell Emerging Markets Mid-Cap® Index	-1.47	6.60	4.41	9.70	10.32	6.25
Russell Emerging Markets Small-Cap® Index	-0.05	9.57	4.84	9.88	12.13	6.23

¹⁰ Inception date (1st full month) of Russell Global ex-US®, Developed ex-US®, and Emerging Markets® Index
Date Source: MPI Stylus

Definitions

Statistics and Characteristics

Debt-to-Equity Ratio – Debt is defined as the sum of total long-term debt, other liabilities, deferred taxes and investment tax credits, and minority interest. For each holdings, this sum is divided by the sum of total common equity and total preferred stock.

Dividend Yield – The statistic reflects the annual rate at which dividends are being paid, including extra dividends. This is the indicated annual dividend for each stock divided by the price of the stock as of the characteristic report processing date.

Expense Ratio – The percentage of fund assets paid for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.

I/B/E/S – Institutional Brokers Estimate System

Information Ratio – The ratio of a portfolio's return, divided by the portfolio's standard deviation. It is designed to measure how much return a manager delivers for each unit of risk.

Long-Term Earnings Growth (I/B/E/S Means) - 1 Month Ago – The statistic indicates the consensus outlook for a portfolio's EPS growth. I/B/E/S provides means of research analysts' estimates for companies'

long-term (typically five years) growth rates. Only stocks with at least three estimates in the I/B/E/S database are included. The "1 Month Ago" characteristic is utilized rather than the current due to the more encompassing data.

Market Capitalization – Also referred to as market cap, it reflects the total equity of a company. A company's market capitalization is determined by multiplying the number of shares outstanding by the current stock price.

Portfolio P/E - I/B/E/S 1 Year Forecast EPS – The comparison of market value relative to forecasted 1-year earnings-per-share. Dollar-weighted harmonic mean of individual company P/E ratios is used. This approach first considers holdings' E/P ratios, which then are summed on a dollar-weighted basis across the entire portfolio to achieve a portfolio E/P ratio. Finally, the inverse of this ratio is taken to arrive at the more familiar Portfolio P/E ratio. 1-Year forecasted earnings-per-share divided by median I/B/E/S consensus EPS estimates for the next fiscal year. An adjustment is made to accommodate different fiscal year-ends and reporting time lags. If a stock has few than three I/B/E/S estimates, it is excluded from the portfolio average.

Statistics as of 12/31/2014	Standard Deviation (%)				Information Ratio				Correlation (r) vs. S&P 500 Idx			
	3-Yrs (annlzd)	5-Yrs (annlzd)	Since 1/1/01 (annlzd)	Since 8/1/96 ¹ (annlzd)	3-Yrs (annlzd)	5-Yrs (annlzd)	Since 1/1/01 (annlzd)	Since 8/1/96 ¹ (annlzd)	3-Yrs (annlzd)	5-Yrs (annlzd)	Since 1/1/01 (annlzd)	Since 8/1/96 ¹¹ (annlzd)
Russell Top 200® Index (US Mega-Cap)	9.05	12.77	14.87	15.63	2.24	1.18	0.29	0.51	1.00	1.00	1.00	1.00
S&P 500 Index	9.10	13.00	15.13	15.61	2.24	1.19	0.35	0.55	1.00	1.00	1.00	1.00
Russell 1000® Index (US Large-Cap)	9.25	13.27	15.35	15.79	2.23	1.18	0.36	0.56	1.00	1.00	1.00	1.00
Russell Mid-Cap® Index (US Mid-Cap)	10.29	14.88	17.41	17.41	2.08	1.16	0.51	0.64	0.94	0.97	0.95	0.93
Russell 2000® Index (US Small-Cap)	13.31	17.98	19.83	20.30	1.44	0.86	0.41	0.44	0.83	0.92	0.89	0.81
Russell Global ex-US Large-Cap® Index	13.10	16.71	18.44	17.68	0.76	0.32	0.28	0.35	0.80	0.89	0.89	0.85
Russell Global ex-US® Index	13.01	16.59	18.45	17.65	0.78	0.33	0.31	0.35	0.79	0.88	0.88	0.84
Russell Global ex-US Mid-Cap® Index	12.68	16.08	18.56	17.61	0.81	0.41	0.43	0.43	0.78	0.86	0.85	0.81
Russell Global ex-US Small-Cap® Index	12.88	16.25	19.39	18.68	0.84	0.42	0.48	0.35	0.74	0.84	0.79	0.73
Russell Developed ex-US Large-Cap® Index	13.00	16.62	17.92	17.20	0.89	0.37	0.27	0.36	0.80	0.89	0.89	0.85
Russell Developed ex-US® Index	12.91	16.47	17.86	17.10	0.89	0.39	0.29	0.36	0.80	0.89	0.89	0.85
Russell Developed ex-US Mid-Cap® Index	12.50	15.71	17.74	16.78	0.95	0.48	0.41	0.45	0.79	0.88	0.86	0.81
Russell Developed ex-US Small-Cap® Index	12.89	15.86	18.34	17.57	0.88	0.49	0.45	0.37	0.73	0.84	0.79	0.72
Russell Emerging Markets Large-Cap® Index	15.33	18.61	23.71	24.63	0.32	0.14	0.42	0.27	0.68	0.80	0.79	0.74
Russell Emerging Markets® Index	15.04	18.47	23.53	24.14	0.37	0.16	0.44	0.27	0.68	0.80	0.78	0.73
Russell Emerging Markets Mid-Cap® Index	14.54	18.32	23.22	23.67	0.45	0.24	0.44	0.26	0.69	0.78	0.78	0.73
Russell Emerging Markets Small-Cap® Index	14.18	18.34	24.04	24.26	0.68	0.26	0.50	0.26	0.70	0.77	0.74	0.68

¹ Inception date (1st full month) of Russell Global ex-US®, Developed ex-US®, and Emerging Markets® Index
Date Source: MPI Stylus

Portfolio Price/ Book Ratio – The comparison of market value relative to accumulated profits and capital. Dollar-weighted harmonic mean of holdings' price/book ratios is used. Book value per share divided by current market price per share.

Portfolio Price/Cash Flow Ratio – The comparison of market value to cash flow growth. Market value-weighted harmonic mean of holdings' price-to-cash-flow ratios is used.

Portfolio Price/Sales Ratio – The comparison of market value to sales. Dollar-weighted harmonic mean of holdings' price/sales ratios is used. A sales/price ratio is calculated for each company, using price as of the Characteristic report date and the previous 12-month revenues.

Return on Equity (ROE) – Return on Equity (ROE) relates a company's profitability to its shareholders' equity. A high ROE indicates that the portfolio is invested in companies that are currently profitable, though care should be taken when using this number because financial leverage affects the ratio. The calculation divides the latest reported fiscal year EPS before extraordinary items by the (total common equity) + (preferred stock carrying value). The denominator uses data from the beginning of the period employed in the numerator.

R Squared – A statistical measure that represents the percentage of a fund's or security's movements that are explained by movements in a

benchmark index. For fixed-income securities the benchmark is the T-bill, and for equities the benchmark is the S&P 500. R-squared values range from 0 to 100. An R-squared of 100 means that all movements of a security are completely explained by movements in the index.

Standard Deviation – A measure of risk that quantifies variance of returns relative to historical performance.

Index Definitions

Indices are unmanaged and do not reflect any fees or expenses. One cannot invest directly in an index.

Russell® Equity Indices

All **Russell® Equity Indices** are completely reconstituted annually. For large and broad cap indices, the annual reconstitution is meant to ensure new and growing equities are reflected. For mid, small/mid, small, and micro cap indices, the annual reconstitution is meant to ensure larger stocks do not distort the performance and characteristics of their respective mid-cap, small/mid-cap, small-cap and micro-cap opportunity set. Each index is constructed to provide a comprehensive and unbiased barometer of their respective capitalization segment of the market and style (if one is indicated).

The **Russell Global® Index** measures the performance of the global equity market based on all investable equity securities. The index includes approximately 10,000 securities in 48 countries and covers 98% of the investable global market. All securities in the Russell Global® Index are classified according to size, region, country, and sector, as a result the Index can be segmented into more than 300 distinct benchmarks.

The **Russell Top 200® Index** measures the performance of the largest cap segment of the U.S. equity universe. It includes approximately 200 of the largest securities based on a combination of their market cap and current index membership market.

The **Russell 1000® Index** measures the performance of the large-cap segment of the U.S. equity universe. It includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership.

The **Russell Midcap® Index** measures the performance of the mid-cap segment of the U.S. equity universe. It includes approximately 800 of the securities based on a combination of their market cap and current index membership.

The **Russell 2000® Index** measures the performance of the small-cap segment of the U.S. equity universe. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

The **Russell Developed ex US® Index** measures the performance of the global equity market excluding the United States and Emerging Market countries (as defined by Russell) based on all investable equity securities.

The **Russell Emerging Market® Index** the performance of the global equity market excluding the United States and Developed Market countries (as defined by Russell) based on all investable equity securities.

The **Russell Global ex US® Index** measures the performance of the global equity market excluding the United States based on all investable equity securities.

The **Russell® Global ex US Large Cap, Mid Cap, and Small Cap Indices** are subsets of the Russell Global ex US® Index. The Russell Global ex US Large Cap Index includes both large cap stocks and the stocks within the Russell Global ex US Mid Cap Index weighted by market capitalization (similar to the US-oriented Russell 1000 Index).

The **Russell® Growth Indices** measure the performance of the companies within each specific Russell index with higher price-to-book ratios and higher forecasted growth values.

The **Russell® Value Indices** measure the performance of the companies within each specific Russell index with lower price to book ratios and lower forecasted growth values.