

Global equities: Think small in a big world Special Global Equity

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Jim Tringas, CFA
Managing Director and Senior Portfolio Manager

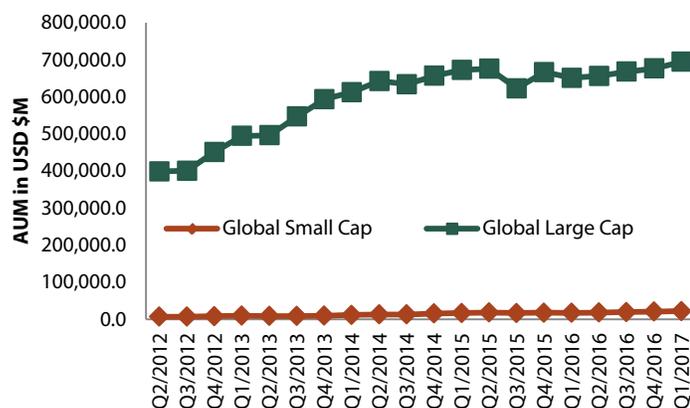
Bryant H. VanCronkhite, CFA
Managing Director and Senior Portfolio Manager

John Ognar, CFA
Portfolio Specialist

Over the years, equity investors have come to recognize the many benefits of global investing. However, most investors attempt to leverage these benefits by simply adding global large-capitalization securities or funds. In this research paper, we examine how increased allocations to global small-cap securities can enhance overall portfolio returns, increase portfolio efficiency and decrease overall portfolio correlations. Global small-cap markets are ripe with opportunity, but will require an experienced team with a consistent process that is focused on risk management to fully exploit market inefficiencies and maximize risk-adjusted returns.

Most equity investors have accepted that an increased allocation to international markets will improve their portfolio diversification and widen their opportunity to increase portfolio returns. However, most investors have narrowly utilized global large-cap equities in an attempt to leverage these diversification benefits.

Figure 1: Capital invested in Global Large Cap vs. Global Small Cap



Source: eVestment. Time period: Q2 2012-Q1 2017.

As shown in Figure 1, while there has been growth in global small-cap AUM on an absolute basis, most global equity investors have chosen to invest using global large caps to achieve exposure. Arguments have been made that because 85% of the world’s market capitalization is contained within MSCI World and MSCI ACWI Indices, the global diversification benefit has been achieved and that these two indices are the most efficient way to do so. We however, believe that this approach is too narrow and causes investors to miss one of the best investment opportunities available to them, global small-cap equities.

Why global small caps?

As the benefits of global investing have been embraced by many investors, so too have the benefits of small cap investing in the United States. Small-cap equities have been well recognized for their ability to increase returns via their unique growth characteristics versus their large-cap peers. Many small-cap companies possess entrepreneurial technologies or services that are accompanied by explosive growth

potential. Given the vast number of securities, shorter operating histories, and added costs of researching small-cap equities; research coverage of the small-cap space is significantly less efficient. This dynamic often leads to increased analytical inefficiencies and price dislocations versus a company’s fundamental prospects. Investor’s familiarity and perceived stability of large-cap companies has contributed to a reluctance to allocate to small-cap companies. While this inefficiency is widely understood by investors, it is often not exploited enough through active asset management. We believe this small-cap anomaly and perceived instability only enhances the exploitation opportunity.

When we examine this inefficiency across the global small-cap market, the exploitation opportunities grow exponentially. When we compare the size of the S&P 500 and the MSCI World Index versus the MSCI World Small Cap Index, it is clear that the global small-cap universe is not only multiples larger in the number of securities, but also significantly under researched. Taking this one step further, we uncover that within the MSCI World Small Cap Index, international securities are followed by an average of five analysts while the U.S. constituents within the benchmark are followed on average by seven analysts.

Index	\$ Market Cap	# of Developed Markets	# of Constituents	Average # of Research Analysts Covering
S&P 500	\$21 Trillion	1	505	21
MSCI World Index	\$35 Trillion	23	1,625	17
MSCI World Small Cap Index	\$5.6 Trillion	23	4,284	6

Sources: FactSet, Bloomberg, and Wells Capital Management, as of 12/31/16.

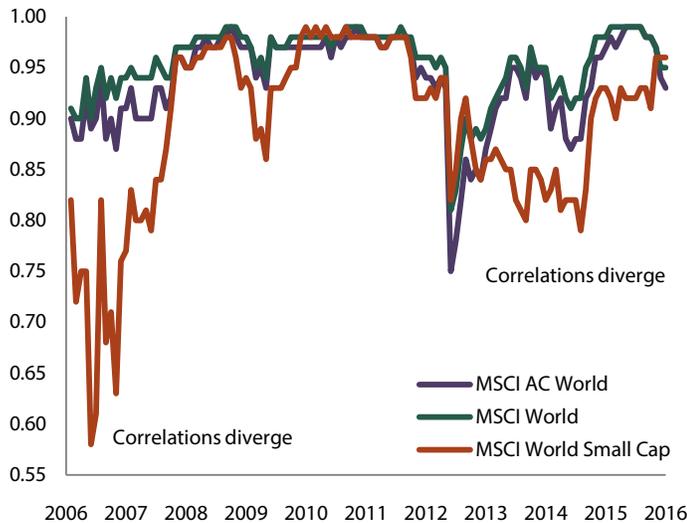
Large-cap companies are not only more universally and efficiently followed, but they are often a proxy for the broader economy. There is very little opportunity for large-cap companies to move the valuation creation needle to significantly influence their share price without taking on significant risks. Given that stock appreciation and shareholder value are primarily driven by a company’s ability to deliver results above investors’ expectations; we ask the question, “**Why would an equity investor limit their portfolio to the most commonly followed asset class that has the least ability to deliver results ahead of expectations?**”

Having established that the global small-cap universe offers a larger pool of securities for active managers to exploit inefficiencies; we believe that the idiosyncratic (stock-specific risk) nature of global small-cap companies and international markets significantly enhances the opportunity set that global and international investors are seeking. The increased size of the investment universe offers an opportunity to **decrease overall** portfolio correlations through active investment

management. In the wake of globalization, economies have become more correlated whereby large-cap, multi-national companies in particular have become a proxy for the overall economy. Driven by underlying fundamental factors that tend to be more idiosyncratic than their large-cap peers, small-cap securities combined with active security selection can offer lower portfolio correlations that many investors are seeking. This is evidenced by examining the results of widening your investible universe to include the 23 countries and over 4,000 securities in the MSCI World Small Cap Index, on a relative basis correlations diverge (refer to Figure 2).

Figure 2: Benchmark correlations

Correlation to S&P 500 (Rolling 12 months, 2006-2016)

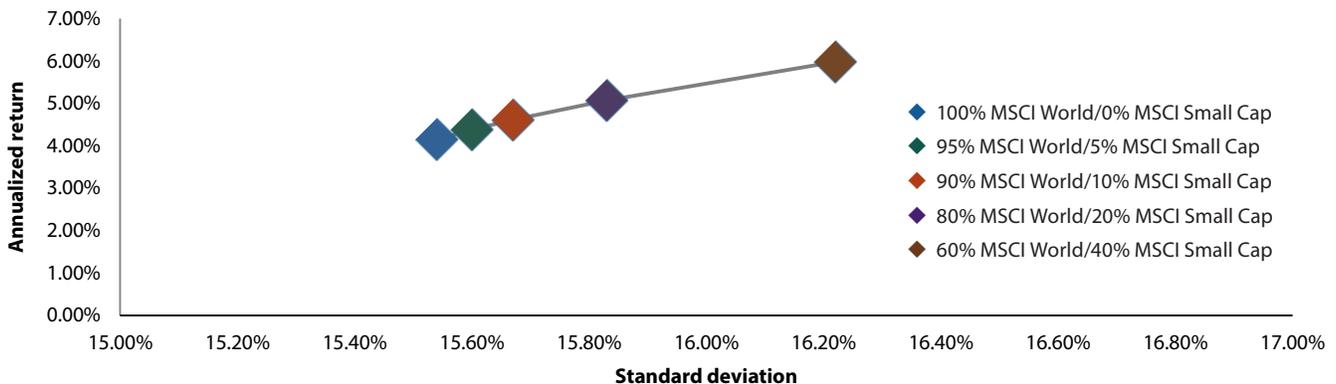


Sources: FactSet and Wells Capital Management. Time period: 2006-2016.

Do investors take on significant risk by adding global small caps?

There is a commonly held belief that going down market cap involves taking more risk in a portfolio. It is true that over time a portfolio's standard deviations will increase as small caps are added to a predominantly large-cap portfolio. This is a byproduct of the idiosyncratic nature of small-cap companies that we discussed earlier. We believe that the added return and increased opportunity set that global small caps bring to a portfolio more than compensates for the slight increase to portfolio standard deviations.

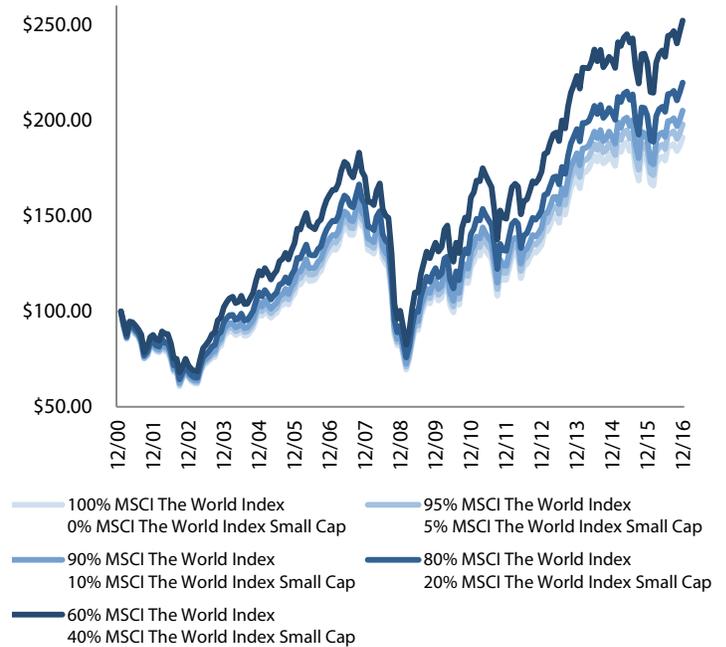
Figure 4: Risk versus return



Sources: FactSet and Wells Capital Management. Time period: 2/2001 – 12/2016.

To illustrate this risk/reward relationship, we examined the impact to equity portfolios when varying levels of global small caps were added to a global large-cap portfolio. Using the popular MSCI Developed World Index and the MSCI Developed Small Cap Index, we first looked at overall portfolio returns from increasing small-cap allocations. Not surprisingly, going back to the year 2000, which is as far as we could with the MSCI data available, returns were significantly enhanced as small-cap exposure was increased.

Figure 3: Growth of \$100

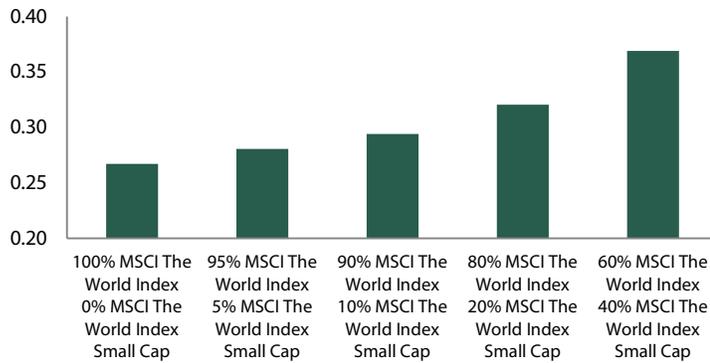


Sources: FactSet and Wells Capital Management. Time period: 12/2000-12/2016

Next, we looked at the standard deviation of the global equity portfolio from adding various levels of small caps for the same time period. We examined the relationship between returns and standard deviation to determine if the increase in returns compensated for the increase in standard deviation.

When comparing the Sharpe ratio, which is a common measure for calculating risk-adjusted returns of the portfolios, one can see that the ratios increased significantly as the mix of small caps increased.

Figure 5: Sharpe ratio

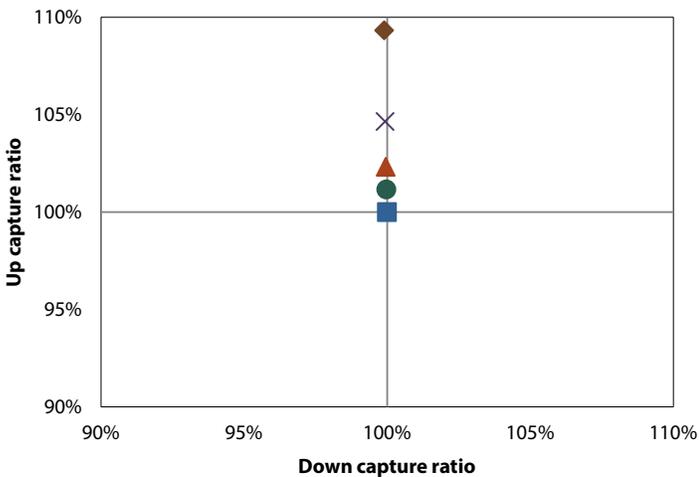


Sources: FactSet and Wells Capital Management. Time period: 2/2001 – 12/2016.

The data suggests that the significant return increase from adding more global small caps improves the portfolio’s efficiency and fully compensates investors for the slight increase in standard deviation.

Another way to examine the “risk” associated with adding more small caps is to look at the up/down capture ratios of the hypothetical portfolios. When we compare the portfolios we can see significant increases to the up captures with very little difference in the down captures as more small caps are added.

Figure 6: Up/down capture ratios



- 100% MSCI The World Index
- 95% MSCI The World Index
- ▲ 90% MSCI The World Index
- ◆ 60% MSCI The World Index
- 0% MSCI The World Index Small Cap
- 5% MSCI The World Index Small Cap
- ▲ 10% MSCI The World Index Small Cap
- ◆ 40% MSCI The World Index Small Cap
- × 80% MSCI The World Index
- × 20% MSCI The World Index Small Cap

Sources: FactSet and Wells Capital Management. Time period: 2/2001 – 12/2016.

Is now a good time to increase global small-cap allocations?

Maintaining a consistent allocation to global small caps has historically been shown to provide attractive total returns and diversification benefits that improve portfolio-level risk adjusted returns. However, we recognize that many investors may have tactical views regarding their allocations to this space.

We have analyzed historical periods and have found that small cap out-performance tends to be correlated to the following macro conditions:

- Improving GDP growth often accompanied by a rising rate cycle.
- Increasing credit availability.
- Increasing merger & acquisition volumes.

As we evaluate the overall global economy there are plenty of geographic regions in which small-caps should stand to benefit from these factors. One of the benefits of global investing is that these cyclical factors can vary dramatically by geographical region whereby, many of the regions are at different points of their economic cycles. An experienced, active, global manager can assess where each region, each sector, and each company is in their respective economic cycle to opportunistically allocate and protect capital.

To reiterate the opportunity that we believe global small caps present, Figure 7 highlights that the MSCI World Small Cap Index has outperformed the MSCI World Index 100% of the time on a rolling 10-year basis since inception. The argument holds true when analyzed on a 3-year and 5-year basis as well, where the MSCI World Small Cap Index outperforms 87.10% and 94.44% of the time respectively.

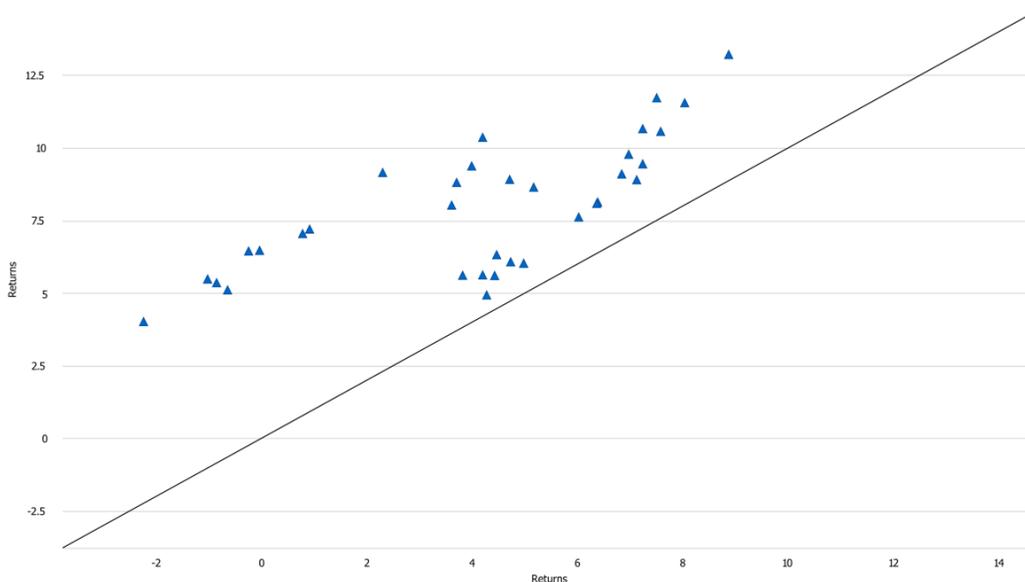
Are investors better served to use a passive or active approach with global small caps?

The active versus passive discussion has been the subject of much debate in recent years. Given the lower fees associated with passive investing, we believe it certainly has its merits and a place in many investors’ portfolios. However, we believe that the best place to apply passive investing is in asset classes where returns are highly correlated and active management has few opportunities to exploit inefficiencies. Global small-cap equity markets are ripe with inefficiencies for active managers to exploit, and we believe that skilled active managers can benefit from their ability to allocate capital toward the best opportunities. One also has to look at the underlying construction of the index they are selecting in order to fully understand how that allocation fits with the rest of their portfolio and how it will react to unforeseen volatility. With larger inefficiencies, a bountiful opportunity set, and the potential to derive lower stock correlations, global small caps present active managers with an opportunity to deliver more consistent risk-adjusted alpha versus large-cap peers.

Should investors utilize a separate international and domestic small-cap manager or one global small-cap manager?

Many investors think that by hiring a separate international and domestic manager they are reducing their overall portfolio correlations. We would argue that the opposite is actually true. When each manager is not privy to the strategy the other manager is implementing, unintended correlations are unavoidable; thereby reducing the diversification benefit that an investor is trying to achieve from allocating to international small caps to begin with. Concentration risk is also

Exhibit 7: Rolling 10-years since inception



	# of observations	# outperform benchmark	% outperform benchmark
▲ MSCI World Small Cap-ND	34	34	100.00%
— MSCI World-ND			

Source: eVestment, as of 3/31/2017.

something that investors need to assess. For example, when the international and domestic manager both decide they want to overweight the energy sector, the combined portfolio is now doubling-down on energy and exposing the investor to potentially hazardous concentration and commodity risks.

Another benefit of a global manager is their ability to take a holistic view toward building optimal portfolios. For example, there is a common belief that the European economic recovery is currently lagging the United States and that the European Central Bank is now following the road map the U.S. Federal Open Market Committee has taken. A global manager can utilize experience gained in the U.S. markets and apply that knowledge toward the European markets. The manager can also evaluate where the best opportunities lie across individual companies, sectors, geographies, and currencies. For example, if the manager views the U.S. real estate cycle to be in the later innings, but still wants to allocate to that sector, they can find real estate companies in other regions that are earlier in their respective cycles and present a more appealing opportunity.

Many professional investors do not want to surrender the geographic allocation decision to an active manager, believing that they are better served to make that decision themselves or utilize a top-down allocation model. We recognize the reluctance to yield this important part of the investment process; however, one of the largest benefits an active global manager offers is their ability to select the best opportunities across geographies. That global manager should be able to recognize the impact currencies and local economic drivers will have at the industry and individual company level to best position the portfolio to not only maximize returns, but also balance risk effectively.

Currency considerations

When considering global or international investing, the decision on whether or not to hedge currencies is an important discussion. The argument for hedging currencies typically revolves around protecting the returns you may gain in your portfolio from volatility in local and foreign currencies. While this certainly sounds like a simple risk-mitigation tool, an investor needs to evaluate the expertise required and associated expense to successfully execute currency hedging. Successful currency hedging requires perfect timing and an accurate view on both the target investment’s currency as well as the investor’s home-country currency. As corporations become more global, some have chosen to hedge their own currency risk often making it difficult to evaluate the overall net foreign currency exposure. Although some argue that the cost of currency hedging has come down over the years, it is still a significant consideration that must be factored into any expected return calculation. There have been many white papers written on hedging a global equity portfolio, but our conclusion, given the significant difficulty in forecasting currency volatility and the added expense, is that the risks simply outweigh the benefits.

Summary

Investors have an abundance of capital allocation options, and we believe the merits of global small-cap equities are mistakenly often overlooked. When considering the increased opportunity set of international and global equity investing, combined with the idiosyncratic characteristics of global small-cap stocks, we believe that there is significant opportunity for active managers to extract alpha while reducing overall portfolio correlations versus their large-cap peers. Since the turn of the century, global small caps have significantly

outperformed their large-cap peers on both an absolute and risk-adjusted basis. There is a common misperception that global small caps are inherently risky; yet, overwhelming data supports that investors are fully compensated for the slight increase in standard deviations. Although the level of global small-cap allocations utilized by investors should be determined by their own specific goals and risk tolerance, we believe all could benefit from an allocation to global small caps.

The Wells Fargo Special Global Equity Team's approach:

As active equity managers, we seek to exploit market inefficiencies to generate consistent alpha with a lower risk profile than our peers. We believe one of the largest inefficiencies in equity investing is investors' intense focus on short-term historical results and their attempt to extrapolate those results into the future to determine which stocks will perform the best. We do not subscribe to this theory and believe it leads to very inconsistent and volatile results. Equity investors often focus primarily on income statement analysis. Although we believe the income statement does an efficient job of telling what has happened in the past, it is very difficult to extrapolate those historical results into the future with any certainty. We believe the balance sheet provides a better basis to evaluate what type of opportunities that company will be able to benefit from, and ultimately what type of free cash flow they will generate in the future.

The Wells Fargo Special Global Equity team utilizes a vigorous CPA-based approach to financial statement analysis to identify companies that can utilize their financial flexibility to determine their fate. The team seeks to own companies that possess three criteria:

1. A durable asset base that provides a long-term competitive advantage.
2. Strong and sustainable free cash flow that provides stability and consistency.
3. A flexible balance sheet that is available for accretive deployment.

We also believe that most equity investors are attempting to answer the question, "How much will I make if I am right?" We believe they should be asking the question, "Am I getting compensated enough for the risk in my portfolio?" The team utilizes a valuation process that focuses on downside risk and seeks asymmetrical reward-to-risk ratios. This disciplined valuation process allows us to remove emotions and biases from our decision-making and to invest where reward for the level of risk being taken is greatest.

Applying this strict process to the global small-cap universe has proven to be beneficial, given the vast number of securities and abundant inefficiencies available to exploit. The differences between domestic and international accounting methods and standards have provided many opportunities for the team to demonstrate their expertise and to extract alpha. Many investors find it difficult to analyze financial statements outside of their own country. This confusion often leads to market uncertainty, which translates to great opportunities for our team to exploit. Having a dedicated risk management process that is engrained in the security selection and portfolio construction approach is even more essential when it comes to investing internationally. Unintended or intended impacts from currency and/or localized regional influences can have major ramifications on returns and portfolio volatility. The extensive financial statement analysis, the reward-to-risk valuation process, and the risk management tools utilized by the team have allowed us to successfully navigate the global small-cap markets. We believe our steadfast approach should provide our clients with a prosperous future in one of the most advantageous and underutilized asset classes available to them.

Jim Tringas, CFA

Managing Director and Senior Portfolio Manager

Jim Tringas is a senior portfolio manager and co-team leader for the Special Global Equity team at Wells Capital Management. Jim has oversight and portfolio management responsibility for the Special U.S. Small Cap Value, Special U.S. Mid Cap Value, Special Global Small Cap, Special International Small Cap, and Special Dividend Focused Equity portfolios. He joined WellsCap from Evergreen Investments, where he began his investment industry career in 1994, which includes serving as a portfolio manager with Wachovia Asset Management Group. Prior to this, he served as a senior consultant in the Personal Financial Group of Ernst & Young. Jim earned a bachelor's degree and a master's degree in accounting from the University of Florida. He is a former Certified Public Accountant (CPA) and a member of the Boston Security Analysts Society. Jim has earned the right to use the CFA designation.

Bryant H. VanCronkhite, CFA

Managing Director and Senior Portfolio Manager

Bryant VanCronkhite is a senior portfolio manager and co-team leader for the Special Global Equity team at Wells Capital Management. Bryant has oversight and portfolio management responsibility for the Special U.S. Small Cap Value, Special U.S. Mid Cap Value, Special Global Small Cap, Special International Small Cap, and Special Dividend Focused Equity portfolios. Prior to this, Bryant was a senior research analyst on the team, which he joined in 2004 before the acquisition of Strong Capital Management. Earlier, Bryant was a mutual fund accountant for Strong. He earned a bachelor's degree and a master's degree in professional accountancy from the University of Wisconsin, Whitewater, and is a Certified Public Accountant (CPA). He is a member of the Milwaukee Society of Financial Analysts and the AICPA. Bryant has earned the right to use the CFA designation.

John Ognar, CFA

Portfolio Specialist

John Ognar is a portfolio specialist for the Special Global Equity team at Wells Capital Management. John joined WellsCap in 2016 from the Wells Fargo Funds Management Group, where he served as senior business development manager for the private bank and broker-dealer distribution channels. Prior to Wells Fargo Asset Management, John served as director of institutional equity sales at Guggenheim Partners and before that vice president of institutional equity sales for Citigroup Global Markets. He has been in the investment industry since 1999. John earned a bachelor's degree in hospitality business from Michigan State University and has earned the right to use the CFA designation.

This paper significantly benefited from extensive research and development by Joshua Demetry, CFA, CIMA®, director of portfolio analytics, Matthew Pirkey, CFA, portfolio risk analyst, and Brian Neuman, investment product development manager at Wells Fargo Asset Management.

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