

Enhancing U.S. Equity Returns Through A More Balanced Market-Cap Allocation Approach

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Executive Summary

When contemplating investing in the U.S. equity market, global defined contribution and other institutional asset platforms have traditionally selected the Standard & Poor's 500 Composite Index (the "S&P 500") as a benchmark and structured their U.S. allocation accordingly. However, the S&P 500 is most heavily weighted in large-capitalization stocks, a factor that is reflected in returns. With this in mind, The Boston Company examines why investors should consider re-evaluating their benchmark standards, and with the use of Efficient Frontier analyses, how investors with a longer investment time horizon can pursue higher risk-adjusted returns with a blended portfolio allocation that includes a broader range of U.S. equity market-cap exposure — specifically small and midsize companies.

Introduction

In the 33-year existence of the Russell Indexes, small/mid- ("SMID") and mid-capitalization stocks have meaningfully outperformed their large-cap counterparts.¹ According to analysis using performance data from 1926 onward through June 2012, small-cap stocks have provided more attractive returns relative to large-cap stocks over this 85-year period. Based on historical evidence, we believe small-cap stocks also have the potential to outperform large-cap stocks once the investment time horizon lengthens to five years or longer.

The tradeoff between higher return potential and increased risk assumption also appears to favor an overweight position in mid-cap stocks. SMID-cap stocks appear to offer a slight positive reward-to-risk benefit, while small-cap stocks do not satisfy this criterion.

A hidden advantage for each of these non-large-cap asset classes is reduced exposure to Europe. In general, as a company's capitalization increases, so does its exposure to European end markets. Given the challenging outlook for Europe versus the relatively positive growth prospects for the North American economies, this is an important consideration.

Finally, large investment plans may want to lock in potential gains from the recent outperformance of large-cap stocks and rebalance within a more favorable environment among SMID- and mid-cap stocks relative to S&P 500 weights, as we believe valuations are currently attractive and supportive of long-term investment horizons.

¹ For purposes of this analysis, small-, smid-, mid- and large-cap stocks are represented by the Russell 2000, Russell 2500, Russell Midcap and Russell Top 200 indexes, respectively. **Past performance does not guarantee future results.** Investors cannot invest directly in any index.



Not FDIC-Insured. Not Bank-Guaranteed. May Lose Value.

Analyzing U.S. Equity Capitalization

The S&P 500 is often misrepresented as being a broad measure of U.S. equities. In reality, though, the S&P 500 Index is heavily skewed toward large-cap companies. The market capitalizations of S&P 500 components range from \$1.1 billion to \$540.2 billion; however, the weighted average market cap of the S&P 500 Index is \$105.5 billion. As a result, large-cap stocks can dramatically influence returns.

In comparison, we believe the Russell 3000 Index better reflects the balance in the U.S. equity marketplace. The Russell 3000 has a market-cap range of \$8 million to \$540.1 billion and a weighted average market cap of \$89.2 billion. For a more comprehensive look at the composition of both indexes, see Exhibit 1, which breaks down the respective market capitalizations as of June 30, 2012.

Exhibit 1. The Russell 3000 Index Offers a More Balanced Market Cap Representation of the U.S. Equity Marketplace

Market Segment	Mkt Capitalization	S&P 500 Index Weight	Russell 3000 Index Weight		
Micro Cap	<\$250 mil	0.0%	0.5%		
Small Cap	\$250 mil to \$2 bil	0.1%	6.9%		
SMID Cap	\$2 bil to \$5 bil	2.3%	9.2%		
Mid Cap	\$5 bil to \$15 bil	5 bil to \$15 bil 15.2% 15.8			
Large Cap	>\$15 bil	82.4%	4% 67.7%		

Source: FactSet.

The creation of the Russell Indexes on January 1, 1979, enabled a much broader segmentation of market returns. As shown in Exhibit 2, SMID- and mid-cap stocks have outperformed the S&P 500 over all represented time periods except the previous 12-month period. The longer-term historical returns of stocks with market capitalizations below \$15 billion then, in our view, are worthy of consideration for investment plans with horizons of 10- or more years.

Exhibit 2. Since their Inception in 1979, the Russell SMID and Midcap Indices Have Outperformed Their Large-Cap Counterparts Across Most Standardized Time Periods

Index	1 year	3 years	5 years	10 years	15 years	20 years	25 years	Jan 1, 1979
S&P 500	5.45%	16.40%	0.22%	5.33%	4.77%	8.34%	8.62%	11.40%
Russell 2000 (Small)	-2.08%	17.80%	0.54%	7.00%	6.14%	8.96%	8.11%	11.32%
Russell 2500 (SMID)	-2.29%	19.06%	1.18%	8.01%	7.62%	10.27%	9.65%	12.63%
Russell Midcap	-1.65%	19.44%	1.06%	8.45%	8.14%	10.59%	10.37%	13.14%
Russell Top 200 (Large)	7.04%	15.58%	0.15%	4.72%	4.12%	7.87%	8.28%	10.84%
Russell 3000 (All Cap)	3.84%	16.73%	0.39%	5.81%	5.15%	8.51%	8.69%	11.40%

Source: TBCAM, using ZEPHYR Style Advisor. Returns based on period beginning January 1, 1979 through June 30, 2012. Past performance does not guarantee future results. Investors cannot invest directly in any index. Please refer to Appendix for definitions.

The longer-term historical returns of stocks with market capitalizations below \$15 billion then, in our view, are worthy of consideration for investment plans with horizons of 10- or more years. Over the past 33 years, SMID-cap stocks have outperformed the S&P 500 by 123 basis points on an annualized basis, while the annualized excess return of mid-cap stocks versus the S&P 500 is even higher at 174 basis points. In the same time period, large-cap stocks (as represented by the Russell Top 200 Index) returned 10.84%, the lowest return among all of the asset class segments in this analysis.

Closer Look at Cumulative Returns

Two critical points can be observed from the cumulative returns shown in Exhibit 3. First, the compounding effect of the higher returns over the 33-year time period has created a large excess-return advantage for SMID- and mid-cap stocks relative to the other represented asset classes. Specifically, the cumulative return for SMID-cap stocks since January 1, 1979, has been 5,278%, while mid-cap stocks have provided an even higher cumulative return of 6,155% over the same period.

Although the S&P 500's cumulative return was a respectable 3,623%, the cumulative returns of SMID- and mid-cap stocks exceeded that of the S&P 500 by 1,655% and 2,532%, respectively. Second, consider the marked improvement in absolute and relative performance of non-large stocks since the 2003 market bottom. We attribute this excess return in part to the expansion of the global market economy, which provided non-large-cap companies the ability to outsource production to lower-cost global sources, helping them to gain scale and cost advantages for the first time since the post World-War era. This positive secular development consequently enhanced the sales, operating margins and earnings growth of non-large companies, benefiting their stock prices.

Exhibit 3. The Russell SMID- and Midcap Indices Have Outperformed Their Large-Cap Counterparts on a Cumulative Basis



January 1, 1979 through June 30, 2012

Over the past 33 years, SMID-cap stocks have

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Source: TBCAM, using ZEPHYR Style Advisor. Returns based on period beginning January 1, 1979 through June 30, 2012. Past performance does not guarantee future results. Investors cannot invest directly in any index. Please refer to Appendix for definitions.

The Case for Exposure to Smaller-Cap Stocks

An analysis of returns performed by the Center for Research in Security Prices (CRSP) highlights the importance of maintaining exposure to small-cap stocks. They looked at rolling one-year returns dating back to 1926, and found that small-cap stocks outperformed large-caps 58% of the time. More importantly, the percentage of time that small-caps outperformed their large-cap counterparts rose as the length of the rolling time period increased: small-caps outperformed 63.4% of the time over 5-year rolling periods, 66.2% over 10-year rolling periods and nearly 84% over 20-year rolling periods.²

Looking to see whether these findings would be duplicated over more recent, volatile periods, we compared the rolling 1-, 5- and 10-year returns (month-over-month) of both smallcap and small/midcap indices relative to an accurate proxy for large-caps using available data dating back to May 1996. We not only identified similar trends to those found in the CRSP study, but as the rolling periods increased, both small- and small/midcaps outperformed large caps 100% of the time. (Exhibit 4).

Exhibit 4. Since 1996, Both Small- and Small/Midcap stocks Have Outperformed the Top 200 Large Caps Across Every 10-Year Rolling Period



May 1996 through June 2012

Source: Ned Davis Research, Inc. Copyright 2012. All rights reserved. **Past performance is no guarantee of future results.** Actual results may vary. The indices used for the comparison included the Russell 2000 Index (smallcap), The Russell 2500 Index (Small/midcap) and the Russell Top 200 Index (Large Cap).

More importantly, the percentage of time that small-caps outperformed their large-cap counterparts rose as the length of the rolling time period increased.

² Source: BofA Merrill Lynch, Center for Research in Security Prices. Graduate School of Business, The University of Chicago. **Past performance is no guarantee of future results.** Actual results may vary. The Indices used for the comparison were the CRSP small cap and large cap indices, each composed of U.S. companies traded on NYSE, AMEX, NASDAQ and ARCA exchanges representing roughly the lower 12% and the highest 85% of investable market capitalization, respectively.

Balancing Higher Return Potential against Increased Risk Assumption

Using long-term historical forecast returns relative to standard deviation — a measure of risk — we generated an efficient frontier analysis which we believe supports the case for overweighting both SMID- and mid-cap stocks within an overall U.S. equity allocation.³ The Zephyr analysis begins with a 100% allocation to large-cap stocks and then raises exposure to a new asset class in 25% increments. The impact on projection return and risk is then plotted, and an efficient frontier is created, as shown in Exhibit 5 on page 6.

Raising a portfolio's allocation to SMID-cap stocks from zero to 25% strengthened historical returns by 43 basis points (bp) with only a 40-bp increase in standard deviation. A 25% allocation to mid-cap stocks produced even more attractive results, as historical returns were strengthened by 48 bps with only a 26 bp increase in standard deviation. The recent weaker relative performance of small-cap stocks, however, has impacted their specific risk-return profile versus large-caps. Introducing a 25% allocation to small-cap stocks raised potential returns by 20 basis points, but increased standard deviation by 56 bps.

We believe another important advantage for these non-large-cap asset classes is their reduced exposure to Europe.

³ Historical forecast return represents the annualized arithmetic mean return for periods between January 1979 through June 2012. **Standard deviation** is a statistical measure of the degree to which an individual portfolio return tends to vary from the mean, based on the entire population. The greater degree of dispersion, the greater degree of risk. In mutual funds, the standard deviation tells us how much the return on the fund is deviating from the expected normal returns.

Exhibit 5. Efficient Frontiers for Various Allocations Between Large-Cap Stocks and Each of Small-, SMID, Mid-Cap Stocks Portfolios



Source: TBCAM, using ZEPHYR Style Advisor. **Past performance does not guarantee future results.** Investors cannot invest directly in any index. Actual results will vary. Please refer to Appendix for definitions.

Risk (Standard Deviation, %) Asset Allocations

Mix 3

Return: 13.01%

Standard Deviation: 16.16%

17

25.3%

50.5%

Russell Midcap

Mix 4

Return: 13.46%

Standard Deviation: 16.66%

. 74.7%

16

25.3%

49.5%

S&P 500

Mix 2

Return: 12.54%

Standard Deviation: 15.77%

74.7

11.5

Mix 1 0%

100.09

Return: 12.06%

Standard Deviation: 15.51%

Mix 5

100.09

Return: 13.93%

Standard Deviation: 17.30%

Larger Companies: More Exposure to Europe

This analysis also shows that roughly 81% of smallcap revenue is derived from North America, while approximately 77% of SMIDcap, 72% of mid-cap, and 65% of large-cap revenue are attributable to the region. We believe another important advantage for these non-large-cap asset classes is their reduced exposure to Europe. Investors are rightfully concerned about the impact that Europe's anticipated widespread recession could have on companies' fundamental prospects. As Exhibit 6 shows, small-cap stocks currently have minimal exposure to the region: Only 6% of small-cap revenue can be identified as stemming directly from Europe, Middle East and Africa (EMEA), although additional European exposure could be included in the 7% Other/Unclassified category. The EMEA exposure of the largest 200 U.S. companies is two times greater at 12%, while additional exposure may be present in the 15% reported as Other/Unclassified. This analysis also shows that roughly 81% of small-cap revenue is derived from North America, while approximately 77% of SMID-cap, 72% of mid-cap, and 65% of large-cap revenue are attributable to the region.



Exhibit 6: International Revenue Exposure by Size Index

Source: Credit Suisse, Capital IQ. Percentages based on year-end 2011 total revenues, and are subject to change over time. Values may vary slightly due to rounding.

Current Valuations Support Increased Exposure to Non-Large Asset Classes

Current valuations for non-large stocks also look compelling to us. Renewed concerns about the financial crisis in the Eurozone and the slowdown across select emerging markets have depressed valuations for non-large companies, as seen in Exhibit 7. When viewed on a forward price-to-earnings basis or a price-to-book basis, valuations have declined to levels seen in the "risk-off" market environments of 2010 and 2011 and appear similar to the valuation support levels experienced in 2003 and 2005.

Historically, these valuation levels have been maintained in generally stable market environments, thus providing attractive entry points for small-, SMIDand mid- cap investors. Of course, that would not prove to be the case if the U.S. enters another Great Recession; however, we currently believe it is unlikely to be the case. Expectations that the U.S. economy will remain in a sustainable, albeit sub-par, recovery that builds momentum over time appear to us to be justified by encouraging developments in housing, automobile production and credit formation.

Exhibit 7: Valuations Currently Are Supportive of Smaller-Cap Stock Allocations

	Current				10 Year Average				
Index Name	P/E 2012	P/E 2013	Price/Book	Price/Sales	P/E 2012	P/E 2013	Price/Book	Price/Sales	
Russell 2000	14.8x	12.8x	1.7x	0.9x	17.0x	14.8x	1.9x	0.9x	
Russell 2500	14.4	12.5	1.7	0.9	16.7	14.6	2.0	0.9	
Russell Midcap	14.4	12.6	2.0	1.0	16.2	14.4	2.1	1.0	

Source: FactSet PA2.

Summary

In closing, we believe the small-, SMID- and mid-cap asset classes offer potential opportunities for long-term investors. Efficient frontier historical analysis showed that adding a reasonable amount of incremental exposure to the mid- and SMID- cap asset classes helped achieve a favorable riskreward relationship. Also, higher concentrations of North American revenues and profits should benefit non-large companies as European economies continue to struggle in the years ahead. We advocate increased exposure to the small-, SMID- and mid-cap asset classes through a prudent staggered reallocation program in the months ahead, as current valuation levels appear attractive in our view.

Author Biography

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Director

Michael is a Portfolio Strategist supporting the US Opportunistic Value strategies. Michael joined The Boston Company and the Opportunistic Value Team in 2008. Prior to joining the company, Michael's experience included positions first in equity research, later in portfolio management and most recently in client service and product management. His background includes various equity responsibilities at Kemper Financial Services, Phoenix Investments and Putnam Investments. Michael earned his BBA from Southern Methodist University and his MBA from Indiana University. Michael is a CFA charter holder.

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Joe is a Senior Product Specialist at The Boston Company, responsible for positioning and communicating the firm's products in the marketplace. Previously at the firm, Joe was a Product Manager, providing market research, analysis and project support to enhance the development and promotion of the firm's products and services, and a Client Service Analyst, responsible for generating a diverse range of analytical data and creating performance attribution reporting materials. Before joining The Boston Company, he worked as a Senior Portfolio Accountant at Standish/Mellon Asset Management, where he was responsible for account maintenance, trade processing, cash and asset reconciliations, and he previously served as a Trust Specialist at Mellon Financial Corp. Joe received a BA in Finance from Bryant University and an MBA from Bentley University.

Appendix

The Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 is a subset of the Russell 3000[®] Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.

The Russell 2500 Index measures the performance of the small to mid-cap segment of the U.S. equity universe. The Russell 2500 is a subset of the Russell 3000[®] Index representing approximately 19% of the total market capitalization of that index. It includes approximately 2500 of the smallest 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. The Russell Midcap is a subset of the Russell 1000[®] Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The Russell Midcap represents approximately 31% of the total market capitalization of the Russell 1000 companies.

The Russell Top 200 Index measures the performance of the largest cap segment of the U.S. equity universe. The Russell Top 200 is a subset of the Russell 3000[®] Index and represents approximately 68% of the U.S. market.

The Standard & Poor's 500 Composite Stock Price Index is a widely accepted, unmanaged total return index of U.S. stock market performance.

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Equity funds are subject generally to market, market sector, market liquidity, issuer and investment style risks, among other factors, to varying degrees.

Small- and mid-sized companies carry additional risks because their earnings and revenues tend to be less predictable, and their share prices more volatile than those of larger, more established companies. They also tend to be less liquid than larger company stocks.

