CONTRIBUTORS

Fei Mei Chan
Director
Index Investment Strategy
feimei.chan@spglobal.com

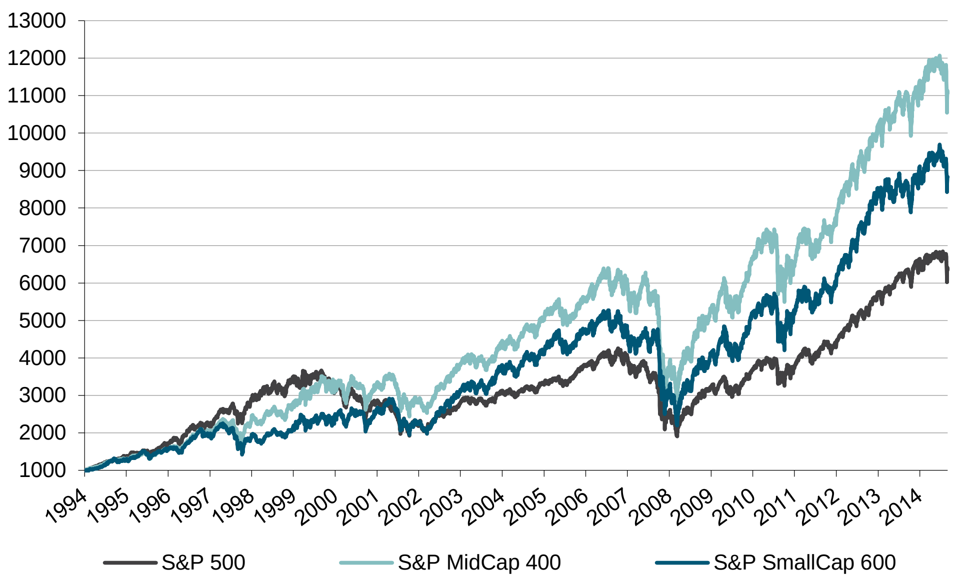
Craig Lazzara, CFA
Managing Director
Global Head of
Index Investment Strategy
craig.lazzara@spglobal.com

Mid Cap: A Sweet Spot for Performance

The distinct performance profile of the U.S. equity market's mid-cap constituents has presented investors with an opportunity over much of the past two decades. Not unlike the human life cycle, companies go through periods of growth and maturation. Mid caps capture a period in the typical enterprise life cycle in which firms have successfully navigated the challenges inherent to small companies, such as raising initial capital and managing early growth, but are still quite dynamic and not so large that rapid growth is unattainable. The performance of the S&P MidCap 400® reflects this business dynamic. The index has outperformed the S&P 500® and the S&P SmallCap 600® for most of the past 20 years (see Exhibit 1).

Mid-cap companies have navigated the challenges inherent to small companies, but still have potential for rapid growth.

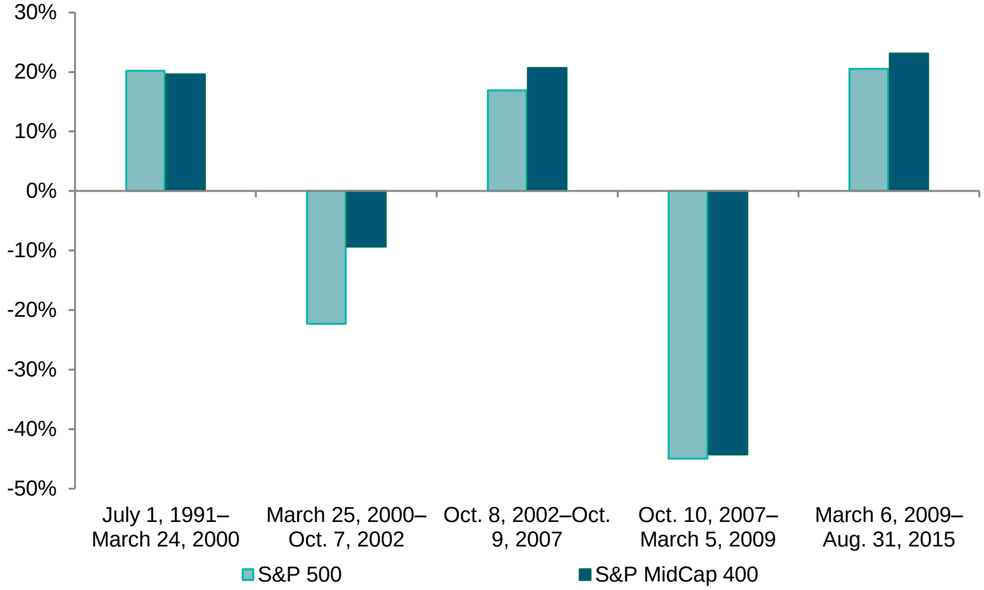
Exhibit 1: Performance of the S&P SmallCap 600, S&P MidCap 400, and S&P 500



Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 1994, through Aug. 31, 2015. Daily index levels rebased to 1,000 on Dec. 31, 1994. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

For the most part, mid caps have consistently outperformed large caps over various timeframes (see Exhibit 2). With the exception of the period from July 1991 to March 2000, when the performance spread was negligible, the S&P MidCap 400 has outperformed the S&P 500 in periods with contrasting market regimes (i.e., in both weak and strong markets).

Exhibit 2: Comparative Performance of the S&P MidCap 400 and the S&P 500



Source: S&P Dow Jones Indices LLC. Data from July 1, 1991, through Aug. 31, 2015. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

THE EFFICIENT MARKETS HYPOTHESIS—NULL FOR THE MID-CAP SEGMENT?

The mid-cap segment is ripe for passive investing.

Advocates of active management argue that there is a stronger case for passive investing in the large-cap segment and more room for the role of the active manager in the mid- and small-cap arenas. This view is based on the assumption that the efficient markets hypothesis (EMH), which posits that share prices account for all relevant information, and therefore always trade at fair values, is more applicable to large caps because there is better research coverage of the big names in the market. Mid- and small-cap companies, in contrast, are often thought to be underresearched and would therefore offer more fertile ground for active managers.

Neither theory nor evidence supports the idea that the EMH is any less applicable to mid- and small-cap companies. The argument for passive investing in any market segment is illustrated by William F. Sharpe using simple arithmetic[1]: the market return is the weighted average of the returns on the passive and active segments of the market. If returns on the passively managed segment of the market equal the market return, then the return on the actively managed segment must also mirror the market. Therefore, the average passive manager will generate the same returns as the average active manager, before expenses.

However, active management can be more expensive than passive management, so the return on the actively managed dollar must be less

[1] William F. Sharpe, "The Arithmetic of Active Management," *The Financial Analysts' Journal*, Vol. 47, No. 1, January/February 1991.

than that of the average passively managed dollar. Segmenting by market capitalization does not negate the principles of basic arithmetic.

This is corroborated by data from S&P Indices Versus Active (SPIVA®) Scorecard (see Exhibit 3). Over the three- and five-year periods, more than 60% of actively managed funds underperformed their relative benchmarks across all market capitalization classes.

Exhibit 3: Actively Managed U.S. Equity Funds That Underperformed Their Benchmarks

FUND CATEGORY	COMPARISON INDEX	THREE YEARS (%)	FIVE YEARS (%)
Large-Cap Funds	S&P 500	64.47	80.80
Mid-Cap Funds	S&P MidCap 400	67.69	78.44
Small-Cap Funds	S&P SmallCap 600	73.21	78.83

Source: S&P Dow Jones Indices LLC, CRSP. Data as of June 30, 2015. Table is provided for illustrative purposes. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay.

Historically, the mid-cap asset class has produced greater risk-adjusted returns than the large-cap segment.

DISTINGUISHING THE MID-CAP SEGMENT FROM THE BROADER MARKET

The line that separates mid-cap stocks from the broader market can be drawn in different places. For the S&P MidCap 400, candidates for inclusion are required to have market capitalizations of USD 1.4 billion to USD 5.9 billion (the market capitalization of S&P 500 constituents typically exceeds USD 5.3 billion).[2] As of August 2015, the total market capitalization of the S&P MidCap 400 was approximately USD 1.5 trillion and accounted for approximately 7% of the total U.S. stock market.

More notably, a company cannot be in the S&P 500 and the S&P MidCap 400 simultaneously. Not all mid-cap indices are so defined. For some index providers, the mid-cap index is a subset of a better-known, large-cap composite index.

A SHARPE POINT

No performance analysis is complete without the customary Sharpe ratio comparison, which measures the reward for each unit of risk taken. The ratio provides deeper insight into the performance profile of the mid-cap asset class.

The S&P MidCap 400's average monthly return from July 1991 through August 2015 was higher than that of the S&P 500 (see Exhibit 4). More importantly, however, is that over the same period, the S&P MidCap 400's Sharpe ratio was 0.177 compared with the S&P 500's 0.144.

[2] These guidelines are effective as of September 2015. The S&P U.S. Index Committee occasionally revises them upward or downward as overall stock market values fluctuate.

The mid-cap segment is not simply a higher-beta version of the large-cap segment.

Exhibit 4: Risk/Reward Profiles of the S&P 500 and the S&P MidCap 400

INDEX	AVERAGE MONTHLY RETURN (%)	STANDARD DEVIATION (%)	SHARPE RATIO
S&P 500	0.82	4.17	0.144
S&P MidCap 400	1.08	4.81	0.177

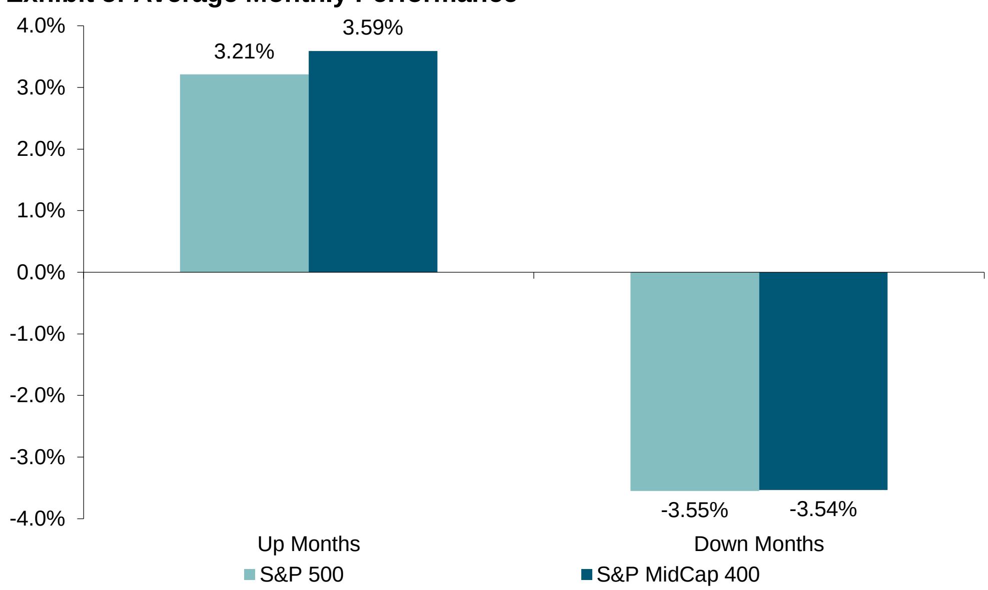
Source: S&P Dow Jones Indices LLC. Data from July 31, 1991, through Aug. 31, 2015. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

BETTER BETA

Historical data shows something particularly important about mid-cap performance: it is not simply a higher-beta or more-volatile version of the large-cap segment of the market.[3] Using a crude regression model, the beta of the S&P MidCap 400 with respect to the S&P 500 is 1.04. This means that the upward or downward movements of the S&P 500 tend to be magnified in the S&P MidCap 400 by a factor of 1.04 (which is to say, hardly at all).

From July 1991 through August 2015, there were 187 up months (months with positive total returns) and the S&P 500 posted an average return of 3.21% (see Exhibit 5). During those same months, the S&P MidCap 400's average return was 3.59%—an average difference of 38 bps. In the 102 down months (months with negative total returns), the difference between the average performance of the S&P 500 (-3.55%) and the S&P MidCap 400 (-3.54%) was negligible.

Exhibit 5: Average Monthly Performance



Source: S&P Dow Jones Indices LLC. Data from July 31, 1991, through Aug. 31, 2015. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

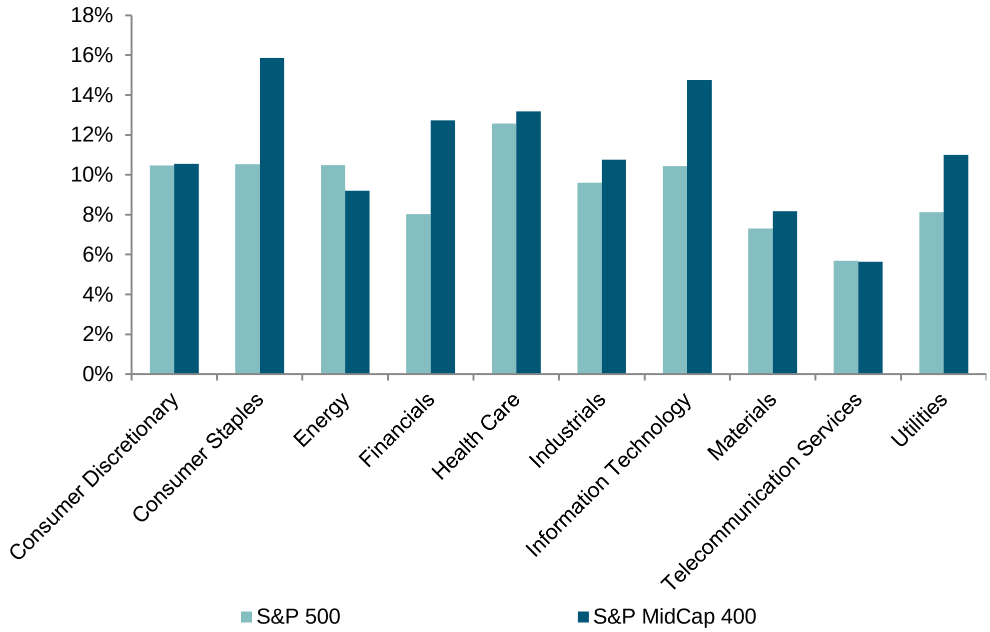
[3] "Beta" refers to the tendency of a stock or portfolio to magnify or diminish the movements of a market index. A beta of 1 indicates a security or segment is moving with the larger market. A beta of less than 1 indicates the security or segment is less volatile, and a beta of greater than 1 is more volatile.

PERFORMANCE BREADTH

A look across the 10 Global Industry Classification Standard (GICS®) sectors within the S&P 500 and the S&P MidCap 400 offers even more credence to the mid-cap segment's superior performance profile. S&P MidCap 400 sectors outperformed 8 of their 10 S&P 500 counterparts. This suggests that the mid-cap segment not only delivered more reliable performance during the periods studied (outperformance in multiple periods), but it also outshined the large-cap segment in performance breadth (outperformance across sectors). Consumer staples has the largest performance spread (see Exhibit 6), with the S&P MidCap 400 outperforming the S&P 500 by 5.3% in annualized total return from January 1995 through August 2015. Financials and information technology had the second- and third-largest spreads, at 4.7% and 4.3%, respectively.

Compared with the large-cap segment, the mid-cap segment delivered better returns during the periods studied in most sectors with comparatively lower risk.

Exhibit 6: Annualized Total Returns



Source: S&P Dow Jones Indices LLC. Annualized total returns from Dec. 30, 1994 through Aug. 31, 2015. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

CONCLUSION

Compared with the large-cap segment, mid caps delivered better returns in most sectors with comparatively lower risk during the periods studied. This performance is no guarantee of future results, but the historical record of the S&P MidCap 400 makes it an intriguing candidate for investors to consider.

ADDITIONAL RESOURCES

To access additional publications from S&P Dow Jones Indices, including the latest SPIVA Scorecard, visit www.spdji.com.

GENERAL DISCLAIMER

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other vehicle. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Dow Jones Indices keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P Dow Jones Indices may have information that is not available to other business units. S&P Dow Jones Indices has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.