Index Construction Matters: The S&P SmallCap 600®

Contributor

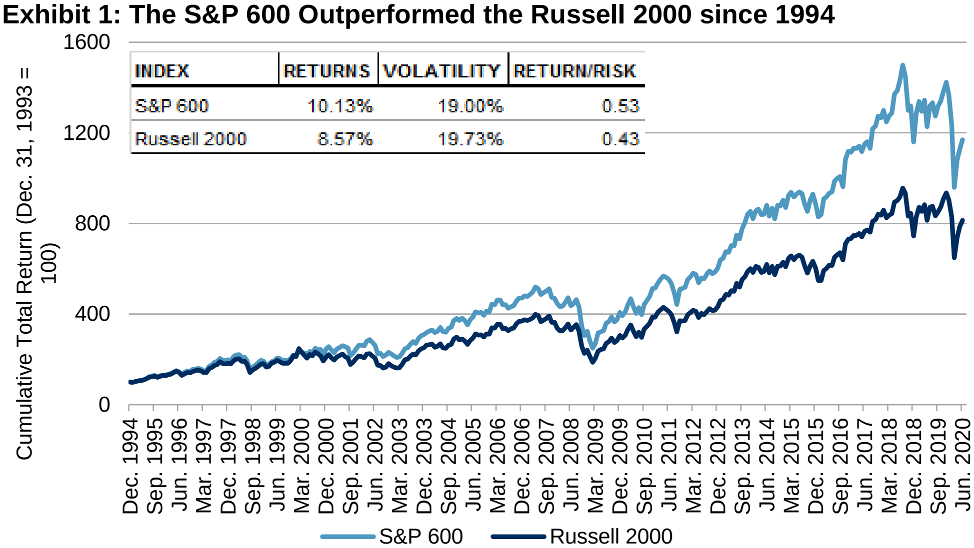
Hamish Preston
Associate Director
U.S. Equity Indices
hamish.preston@spglobal.com

Launched in 1994, the S&P 600 is designed to track the performance of small-cap U.S. equities and has outperformed the Russell 2000 by an average of 1.6% per year over the past 25 years. This outperformance highlights the importance of index construction; unlike the Russell 2000, the S&P 600 uses an earnings screen—companies must have a track record of positive earnings before they are eligible to be added to the index. The resulting quality factor exposure has played a significant role in explaining the S&P 600's relative returns, and why it has been a harder benchmark for active managers to beat.[1]

RELATIVE RETURNS COMPARISON: S&P 600 VERSUS RUSSELL 2000

Exhibit 1 shows the cumulative total returns for the S&P 600 and the Russell 2000 since Dec. 31, 1994. The S&P 600 posted higher annualized returns and lower volatility than the Russell 2000 over the entire period, and it outperformed the Russell 2000 in 17 of the past 25 full calendar year periods.

Exhibit 1: The S&P 600 Outperformed the Russell 2000 since 1994



Source: S&P Dow Jones Indices LLC, FTSE Russell, FactSet. Data from Dec. 30, 1994, to June 30, 2020. Index performance based on monthly total return in USD. Table shows annualized returns and volatility. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

[1] For more information, see Brzenk, Phillip, Bill Hao, and Aye Soe, "A Tale of Two Small-Cap Benchmarks: 10 Years Later," S&P Dow Jones Indices, September 2019.

The S&P 600 typically outperformed the Russell 2000 over all time horizons…

Exhibit 2 shows that the S&P 600 also typically outperformed the Russell 2000 over other horizons. Indeed, the S&P 600 outperformed over most rolling three-month, six-month, one-year, three-year, and five-year periods, with both the frequency and magnitude of outperformance increasing over longer time horizons.

Exhibit 2: The Frequency and Magnitude of the S&P 600's Outperformance Increased with Time

CATEGORY	HORIZON				
	3-MONTH	6-MONTH	1-YEAR	3-YEAR	5-YEAR
Total Number of Periods	304	301	295	271	247
Number of Periods Outperformed	175	192	195	244	243
Number of Period Underperformed	129	109	100	27	4
Frequency of Outperformance (%)	57.57	63.79	66.10	90.04	98.38
Average Outperformance (%)	0.33	0.74	1.63	6.64	13.85

Source: S&P Dow Jones Indices LLC, FTSE Russell, FactSet. Data from Dec. 30, 1994, to June 30, 2020. Index performance based on monthly total returns in USD. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

…and with greater frequency and magnitude as the horizon increased.

IMPACTS OF THE S&P 600 EARNINGS SCREEN

Although both the S&P 600 and the Russell 2000 aim to measure the performance of small-cap U.S. equities, the two indices are constructed differently and have different characteristics. Arguably the biggest difference between the two indices is that, unlike the Russell 2000, the S&P 600 employs an earnings screen. Companies must have a history of positive earnings in order to be eligible for addition to the S&P 600.[2]

The S&P 600 employs an earnings screen, while the Russell 2000 does not.

Exhibit 3 shows the impact of the S&P 600's earnings screen. The results from a linear regression that uses a four-factor model to explain the indices' returns shows that, while the two indices exhibit similar exposures to the market, value, and size factors, only the S&P 600 has a significant quality tilt.[3] This quality exposure plays an important role in understanding the S&P 600's historical outperformance against the Russell 2000—filtering out junk helped![4]

[2] This requirement does not apply to existing membership of the S&P 600; the S&P U.S. Index Committee considers other factors, such as turnover and sector representation, when considering index changes. For more information, see the S&P U.S. Indices Methodology.

[3] For more information on the regression, please see Brzenk, Phillip, Bill Hao, and Aye Soe, "A Tale of Two Small-Cap Benchmarks: 10 Years Later," S&P Dow Jones Indices, September 2019.

[4] Similar significant quality exposure was observed across the market-capitalization spectrum for S&P U.S. Equity Indices. For more information, see Brzenk, Phillip, Hamish Preston, and Aye Soe, "The S&P Composite 1500®: An Efficient Measure of the U.S. Equity Market," S&P Dow Jones Indices, May 2020.

While the two indices exhibit similar exposures to the market, value, and size factors…

…only the S&P 600 has significant quality exposure, which plays an important role in its outperformance.

Exhibit 3: The S&P 600's Significant Quality Tilt Helped It Outperform

FACTOR	S&P 600			RUSSELL 2000		
	COEFFICIENT	STANDARD ERROR	T-STAT	COEFFICIENT	STANDARD ERROR	T-STAT
Intercept	-0.16	0.07	-2.12	-0.14	0.05	-2.71
Market	1.05	0.02	52.54	1.02	0.01	71.13
Size	0.76	0.02	31.60	0.78	0.02	45.60
Value	0.37	0.02	17.13	0.26	0.02	16.65
Quality	0.22	0.04	6.18	0.01	0.03	0.32
Adjusted R^2	0.95			0.98		

Source: S&P Dow Jones Indices LLC, FTSE Russell, FactSet, Ken French, AQR. Data from December 1994 to June 2020. AQR's quality minus junk (QMJ) factor is used to represent the quality factor. Past performance is no guarantee of future results. Table provided is for illustrative purposes.

FREQUENCY OF RECONSTITUTION

Another important difference between the two indices is the Russell 2000 uses an annual reconstitution…

Another important difference between the two indices is the frequency with which index membership changes are made. Indeed, the Russell 2000 uses an annual reconstitution, whereas changes to the S&P 600 are made on an ongoing, as-needed basis. This difference means the S&P 600 can more quickly reflect the market environment.

For example, Russell 2000 companies that become very large must wait until the next reconstitution before they can be moved into a mid- or large-cap index. In contrast, the S&P U.S. Index Committee can move a stock from the S&P 600 into the S&P MidCap 400® or S&P 500® much sooner, if warranted by market conditions. Making changes on an ongoing, as-needed basis also contributed to the S&P 600 having lower turnover than the Russell 2000, historically.[5]

THE S&P 600: A HARDER BENCHMARK TO BEAT, HISTORICALLY

…whereas changes to the S&P 600 are made on an ongoing, as-needed basis.

A common misconception is that small-cap equity markets are more suited to active management. But this belief belies the evidence. For example, data from S&P Dow Jones Indices' semiannual S&P Indices versus Active (SPIVA®) scorecards,[6] which compare the performance of active managers against their S&P DJI benchmark, showed that most small-cap U.S. equity managers underperformed the S&P 600 in 14 out of the past 19 full calendar year periods.[7]

[5] Brzenk, Phillip, Bill Hao, and Aye Soe, "A Tale of Two Small-Cap Benchmarks: 10 Years Later," S&P Dow Jones Indices, September 2019.

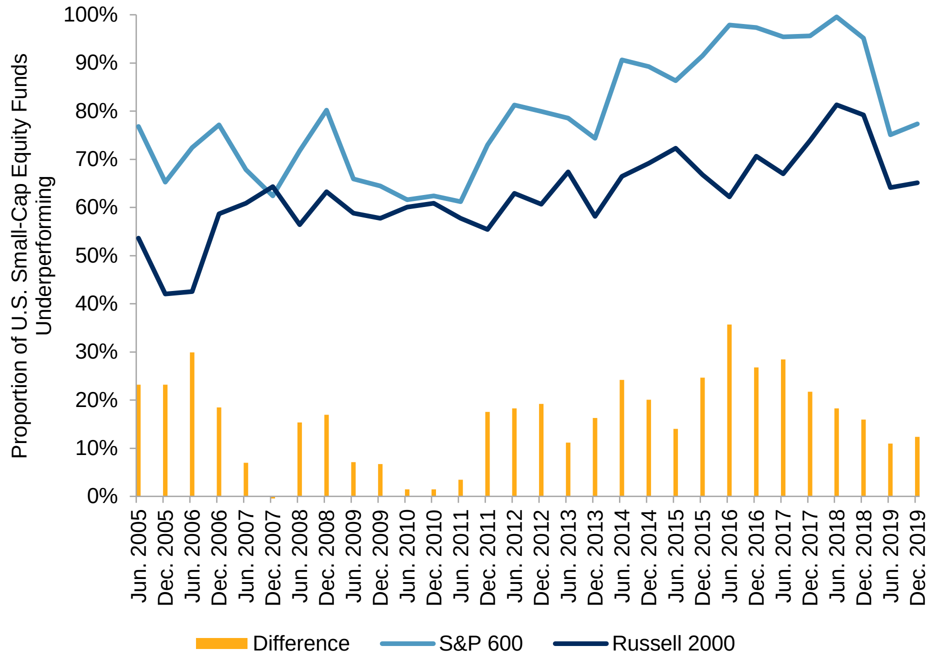
[6] For more information on SPIVA, please see "SPIVA Scorecards: An Overview," S&P Dow Jones Indices, January 2020.

[7] Liu, Berlinda, "SPIVA U.S. Year-End 2019," S&P Dow Jones Indices, April 2020.

The SPIVA U.S. scorecards showed that small-cap U.S. managers consistently underperformed the S&P 600…

Additionally, Exhibit 4 shows that a greater proportion of small-cap U.S. equity managers nearly always underperformed the S&P 600 over five-year periods compared with the Russell 2000. Although this is rather unsurprising given the S&P 600's historical outperformance, it highlights that the choice of index is a key consideration for market participants looking to track or benchmark small-cap U.S. equities.

Exhibit 4: The S&P 600 Has Been a Harder Benchmark to Beat, Historically



Source: S&P Dow Jones Indices LLC, FTSE Russell, CRSP. Data from June 2005 to December 2019. Index performance based on monthly total return in USD. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

…and a greater proportion nearly always underperformed the S&P 600 over five-year periods compared with the Russell 2000.

CONCLUSION

The S&P 600's historical outperformance shows that index construction matters.

Although the S&P 600 and the Russell 2000 both look to represent the small-cap U.S. equity market, the S&P 600's historical outperformance shows that index construction matters.

For example, the S&P 600's earnings screen—and its resulting quality tilt—played a key role in explaining its outperformance versus the Russell 2000 and why the S&P 600 has typically been a more difficult benchmark for active managers to beat.

Combined with the impact of differences in index reconstitution frequencies, the choice of index is a key consideration for market participants looking to track or benchmark small-cap U.S. equities.

GENERAL DISCLAIMER

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be 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 investment product or vehicle. S&P Dow Jones Indices LLC is not a tax advisor. A tax advisor should be consulted to evaluate the impact of any tax-exempt securities on portfolios and the tax consequences of making any particular investment decision. 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. Closing prices for S&P Dow Jones Indices' US benchmark indices are calculated by S&P Dow Jones Indices based on the closing price of the individual constituents of the index as set by their primary exchange. Closing prices are received by S&P Dow Jones Indices from one of its third party vendors and verified by comparing them with prices from an alternative vendor. The vendors receive the closing price from the primary exchanges. Real-time intraday prices are calculated similarly without a second verification.

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 Global keeps certain activities of its various divisions and business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global 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.