

Russell Research

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It's the Market: Russell Indexes capture the active opportunity set

Spotlight on the Russell 1000[®] Index – 2011 update

In 2009 Russell published research demonstrating that the Russell 1000 Index was superior to the S&P 500 Index in representing the opportunity set for active managers.¹ In this paper we update that analysis with findings that the Russell 1000 Index continues to be a better proxy for the performance of active U.S. large cap equity managers than the S&P 500 Index.

Market indexes continue to play a very important role in every step of the investment process, from asset allocation through performance evaluation. Much has been written by Russell and others about what constitutes a good index: ideally, an index is transparent, unbiased, rules-based, investable and above all, representative of a given market.² Index representativeness is crucial in asset allocation, in implementation and in performance analysis.

In active implementation, the index functions as the performance benchmark for the active manager. It is the naive alternative to active management, relative to which the manager is expected to add value. As such, the index needs to capture the opportunity set of active management in a particular market.

Following the 2009 study, we focus on one measure of representativeness: the tracking error between active manager universe returns and index returns.³ We find that active manager returns in the U.S. large cap equity market continue to track the Russell 1000 Index more closely than the S&P 500[®] Index. This supports the position that the Russell 1000 Index more accurately captures the active manager opportunity set, and thus is more representative of the U.S. large cap market.

¹ For past analysis, see "It's the Market: Russell Indexes capture the active opportunity set," December 2009

² Christopherson, Jon A., David R. Carino and Wayne E. Ferson. 2009. *Portfolio Performance Measurement and Benchmarking*. McGraw Hill.

³ For methodology details, see the appendix.

Data used in this study

We utilize total monthly returns beginning in October 2003 and updated through December 2010 to both the Russell 1000 and the S&P 500 Indexes, as well as the frozen historical mean returns to the two Russell U.S. equity universes⁴ described below.

Russell Equity Accounts universe

This universe consists of both separate accounts and commingled funds. These are equity-oriented, fully discretionary, tax-free portfolios at least \$5 million in size. These funds all contain U.S. equity securities and invest in larger cap stocks. The average fund within this universe holds 80% to 90% of its assets in securities classified as medium to mega-large in size, with nearly 70% in large and mega-large stocks (as defined by the Russell 3000[®]). Mutual funds can be included only if the returns are provided gross of fees.

Russell Market-Oriented Accounts universe

Managers in this universe do not evidence a consistent preference for large cap companies emphasized in value or growth. However, two distinct types of management organizations fall into this category: those that construct portfolios with growth and valuation characteristics similar to the broad market over a market cycle, and those willing to make meaningful bets in growth or value emphasis across time, but with no consistent preference.

- Market-oriented managers typically are willing to consider companies representative of the broad market when seeking investment opportunities.
- Portfolios may either be well diversified or may take meaningful sector/factor bets relative to the market toward both growth and value over time.
- Average growth and valuation characteristics over time are historically near those of broad market indexes.

Universe performance is also updated through year-end 2010.

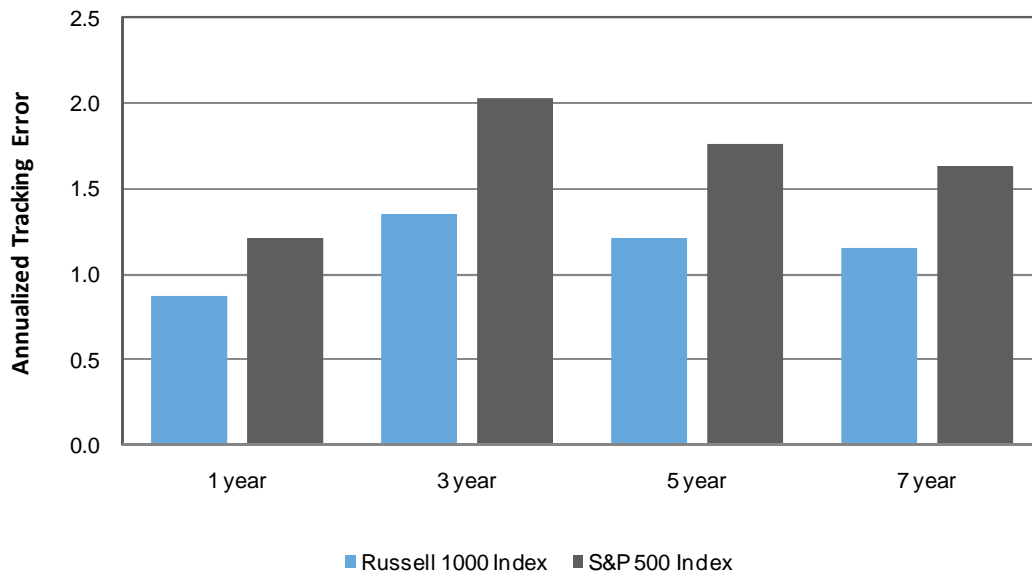
⁴ Russell performs extensive research on and monitoring of investment managers across all asset classes and currently tracks more than 12,000 portfolios worldwide. Universe participants are selected by Russell's research division on the basis of portfolio fundamentals and specific universe criteria. These published universes consist of tax-free, fully discretionary investment advisor bank, portfolios. Returns are reported gross of fees including income. To eliminate potential upward drift, Russell freezes historical performance into the universes through the use of calendar-year quartile charts.

Comparison of the Russell 1000 and the S&P 500 Indexes: tracking error results

Russell calculated tracking errors based on monthly index and universe returns from October 2003 through December 2010. Russell calculated tracking errors based on monthly data from January 2010 through December 2010 (1 year); from January 2008 through December 2010 (3 years); from January 2006 through December 2010 (5 years) and from January 2004 through December 2010 (7 years).

Figures 1 and 2 below present the results of tracking error analysis of both the Russell U.S. Equity Accounts and Russell Market-Oriented Accounts universes⁵ vs. both the Russell 1000 and the S&P 500 Indexes for four periods, all ending December 2010: 1-year, 3-year, 5-year and 7-year.

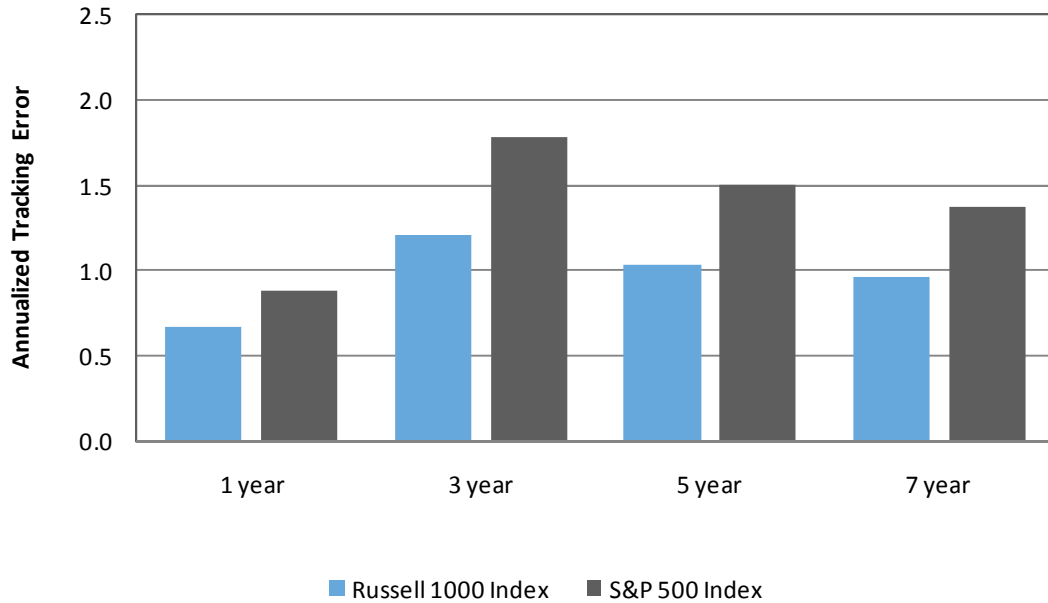
Figure 1 / Tracking error of the Russell U.S. Equity Accounts universe vs. the Russell 1000 and the S&P 500 Indexes, as of December 31, 2010



Indexes and/or benchmarks are unmanaged and cannot be invested in directly. Returns represent past performance, are not a guarantee of future performance and are not indicative of any specific investment.

⁵ We report here results using manager universes managed and maintained by Russell. We validated these results using non-Russell-managed and -maintained active manager peer group universes for U.S. large cap equity managers. Tracking errors using these third-party universes were very close to those we report here based on the Russell universes. As with the Russell universes, the tracking error vs. the Russell 1000 was much less than that relative to the S&P 500 for all sample periods. Analyses using other universes may produce different results.

Figure 2 / Tracking error of Russell U.S. Market-Oriented Accounts universe vs. the Russell 1000 and the S&P 500 Indexes, as of December 31, 2010



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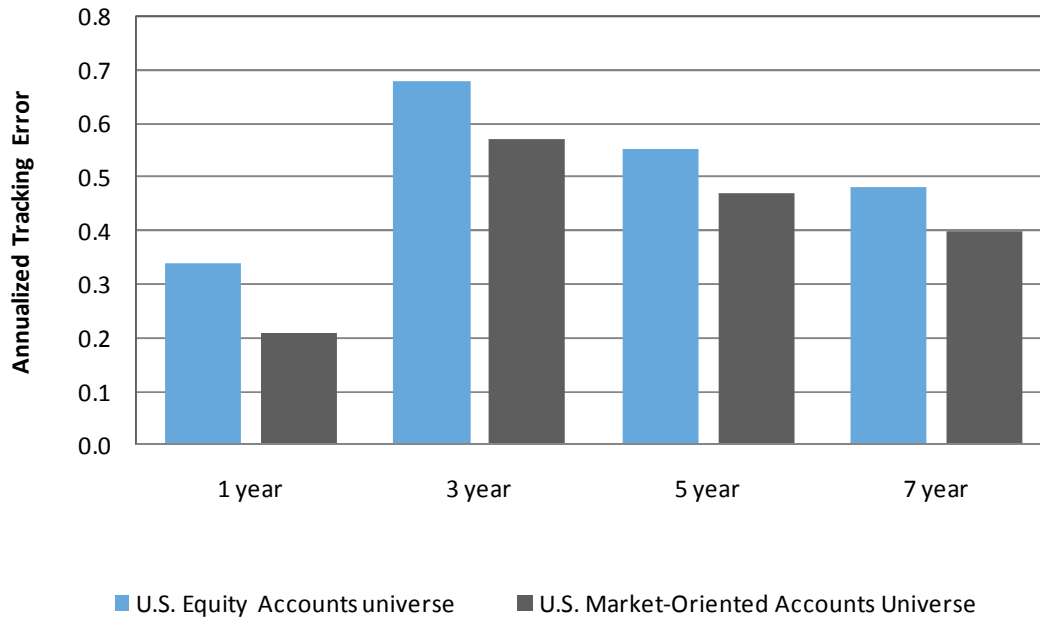
From these figures we observe the following:

The tracking error of both universes is always smaller vs. the Russell 1000 Index than vs. the S&P 500 Index.

The tracking error of both universes has significantly decreased as the market turmoil seen late-2008 through September 2009 has declined, causing slightly smaller margins in the tracking error between the Russell 1000 Index and the S&P 500 Index during 2010. However, the Russell 1000 Index continues to be a better market proxy for the U.S. large cap equity active manager segment.

Figure 3 below highlights the tracking error spread, i.e., the difference between the S&P 500 Index tracking error and that of the Russell 1000 Index for both universes over all four periods.

Figure 3 / Tracking error spread (difference between tracking error of the S&P 500 Index vs. that of the Russell 1000 Index) of the Russell U.S. Equity Accounts and Russell Market-Oriented Accounts universes, as of December 31, 2010



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These results demonstrate that the performance of U.S. active large cap managers in the Russell manager universes more closely tracks the Russell 1000 Index, which is an indication that the Russell 1000 Index better captures the “market” as these managers define it.

Conclusion

Failure to use accurate market measures—that is, the best indexes—can lead to mistakes at important points in the investment process. If the wrong market index is used in the asset-allocation process, the investor’s actual risk exposures, diversification benefits and actual return experience may be suboptimal. Assumptions about risk and return behavior and relationships among markets and asset classes may be wrong. If the investor utilizes active management, the separation between actual and optimal exposures will be even greater if indexes are not representative of the market as defined by the active managers. Furthermore, the evaluation of both investment strategy and manager performance may be inaccurate.

An investor’s best approach to evaluating which index best represents the market is to look to the index defined and tested by the experts: the active managers. Russell believes that this study demonstrates the Russell 1000 Index captures the active manager’s opportunity set best.

Russell Indexes. It’s the Market®

Appendix

Methodology

Tracking error: tracking error is a measure of the difference between the returns to actively managed accounts and the indexes. We measure tracking error as the standard deviation of the time series of historical excess mean returns to a manager universe relative to a given index.⁶ More formally we define excess return as:

If R_{Pt} is the return on an active portfolio in period t , and R_{Bt} is the return on a benchmark portfolio or security in period t , then ER_t , the excess return, is just the difference:

$$ER_t = R_{Pt} - R_{Bt}$$

Tracking error is the standard deviation of the series of excess returns:

$$\hat{\sigma}_{ER} = \sqrt{\frac{1}{T-1} \sum_{t=1}^T (ER_t - \overline{ER})^2}$$

Where \overline{ER} is the arithmetic average of excess returns over the historical period from $t = 1$ through T .

⁶ Source: Goodwin (1997). See also Grinold and Kahn (2000), p. 49, where the authors define active risk/tracking error as the standard deviation of the active/excess returns.

⁷ There is an alternative tracking error measure, the root mean squared error (see Christopherson, Jon A., David R. Carino and Wayne E. Ferson. 2009. *Portfolio Performance Measurement and Benchmarking*. McGraw Hill. pp. 91–92). For our data sets, tracking errors based on standard deviations are almost identical to tracking errors estimated by use of the root mean squared error method.

References

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