

The Truth About Small Caps and Rising Rates

By [Ethan Hugo, CFA](#) and [Benjamin D. Treacy, CFA](#) | Posted: 08-15-12 | 01:29 PM | [E-mail Article](#)

The past several years have been characterized by historically low and declining interest rates. In fact, rates have generally been trending downward in the United States for decades. While the U.S. Federal Reserve (the Fed) has been clear in its intention to keep interest rates at current historically low levels until at least 2014, policymakers have been less transparent about their interest rate policy expectations after that. Many investors expect interest rates to increase, but the size and pace of those increases is the subject of ongoing speculation. Institutional investors, from pension funds to endowments and foundations to large sovereign wealth funds, have therefore been giving careful consideration to the positioning of their portfolios given the prospect of rising interest rates.

While the conventional wisdom suggests that rising interest rates may be a headwind for equity investors, and particularly for investors in small-cap stocks, our research finds that small caps have historically performed well in rising rate environments, both in absolute terms and relative to large caps. Reasons for this outperformance may include variables such as economic growth, which may be correlated with interest rate fluctuations, as well as valuations. The paper also looks at whether active management can add additional stability to a small-cap portfolio in weak markets. It concludes with possible implications for small-cap allocation decisions.

Looking at the Facts

The conventional wisdom suggests that rising interest rates are detrimental to the performance of stocks in general and to small-cap stocks in particular, both in absolute terms and relative to large caps. There are many theoretical reasons for this perception. For example, small caps generally need more external capital to grow than large caps. Rising rates drive up the cost of capital, making growth more expensive. Higher interest rates might impose actual cash costs on small-cap companies, which would erode profit margins and/or lower future earnings growth. Another reason for perceived small-cap underperformance in our view is that the market ultimately values equities based on discounted future cash flows. In most circumstances, higher interest rates mean higher discount rates. Small-cap valuations would seem to be more sensitive to higher discount rates because they tend to be "longer-duration" assets whose valuations are more dependent on future earnings streams.

During the past several decades, however, rising interest rates have actually not been correlated with small-cap underperformance. Examination of the performance of the Russell 2000® Index and the S&P 500® since 1979 (the inception date of the Russell 2000), reveals what for many investors may be surprising results. First, small-cap stocks performed better than large caps when rates rose. Second, small caps actually have shown better absolute appreciation in rising rate periods than in declining rate periods. This data seems to refute the idea that periods of rising rates punish small-cap performance, and are by themselves a strong enough factor to influence small-cap stock allocations.

EXHIBIT 1: Small caps outperformed in rising interest rate environments.



Index performance data includes all total returns, including dividends and interest income. Interest rates are defined as rising or falling based on levels at the beginning and end of each 12-month calendar period. Source: Factset, Fidelity, Russell 2000 Index, S&P 500 Index, U.S. Treasury, Dec. 31, 1979 – Mar. 31, 2012.

As Exhibit 1 (above) demonstrates, on average small caps have historically tended to perform better compared with large-cap stocks during rising rate environments when compared with declining rate environments since 1979.¹ For example, when 10-year Treasury rates have been rising, small caps have outperformed large caps by 0.56%, whereas small caps have underperformed by 0.59% when 10-year rates have been declining.

In addition, as Exhibit 2 (below) demonstrates, small caps have also generally exhibited better absolute performance when rates were rising. On average, rising rates have tended to provide a better backdrop for small-cap performance. During certain periods when interest rates fell by significant amounts (for example, 1981–1983 and 1984–1986, the calendar year periods included in our fifth interest-rate quintile), small-cap stocks have performed the best, however.

EXHIBIT 2: Small caps historically have higher returns in rising rate environments than in declining rate environments.



Quintiles divide small cap performance data into groups representing 20% of sampled calendar years based on size of 12-month rate moves. Source: Factset, Fidelity, Russell 2000 Index, U.S. Treasury, Dec. 31, 1979 – Dec. 31, 2011.

Economic growth, valuations may drive small-cap outperformance

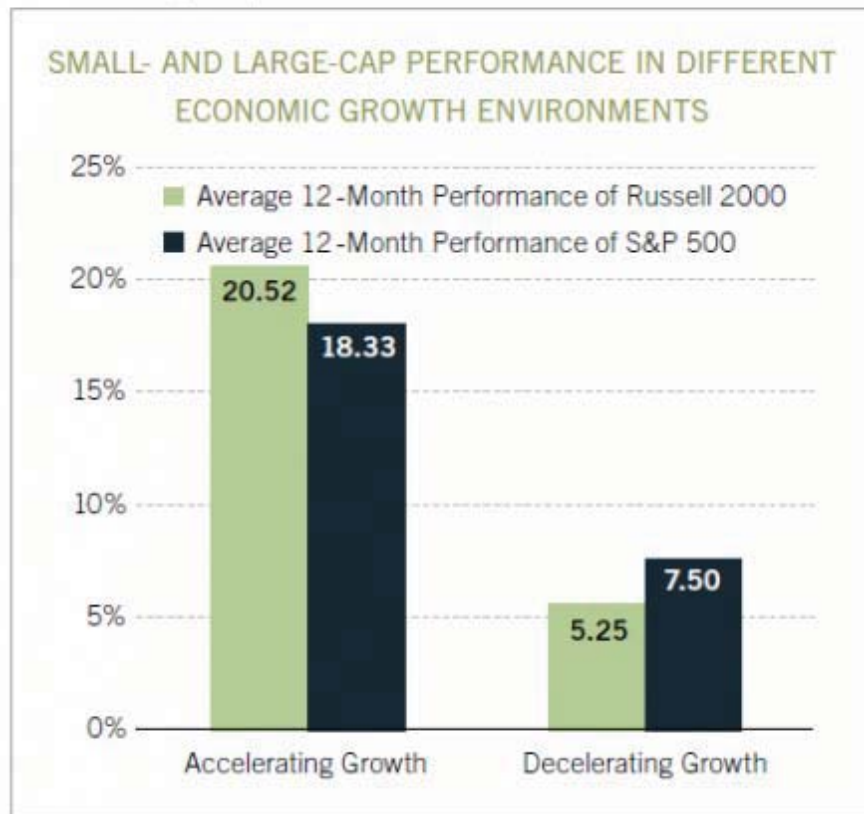
Economic growth--One possible reason for small caps’ strong performance relative to large caps in rising rate environments is that rates tend to go up in response to better economic conditions, which tend to provide a positive backdrop for small-cap companies. At Fidelity and Pyramis, there is a general belief that stock prices follow earnings.

As small-cap company earnings improve with economic conditions, stock prices also generally tend to appreciate. Small-cap stock performance has generally been superior in times of stronger gross domestic product (GDP) growth, rising an average of 16.57% during 12-month calendar year periods when GDP growth averaged greater than 2.5%. This is in contrast with the relative performance of small caps during periods when the economy has contracted. On average, small-cap stocks have declined -3.03% during 12-month calendar year periods from Dec. 31, 1979 to Dec. 31, 2011 when GDP growth has been negative.

While economic growth in general is positively correlated with small-cap performance, the change in the economy’s growth rate has tended to have an even stronger impact. Exhibit 3 (below) depicts the performance of small caps and large caps in various economic growth rate scenarios. In general, over 12-month periods when economic expansion as measured by

U.S. GDP growth is accelerating (defined as a year-over-year increase in the rate of GDP growth), small caps outperform large caps by 2.2%. When economic growth is decelerating, small caps on average trail large caps by 2.3%. The results are particularly robust when interest rates are rising and the economy is accelerating.

EXHIBIT 3: Economic growth historically favors small-cap stocks relative to large caps.



Index return data includes all total returns, including dividends and interest income. Accelerating/decelerating growth are defined as period of year-over-year increase/decrease in GDP growth rate. Source: Factset, Fidelity, Russell 2000 Index, S&P 500 Index, U.S. Bureau of Economic Analysis, Dec. 31, 1979 – Mar. 31, 2011.

In sum, this data suggests that the health of the overall economy as measured by GDP growth rates has proven historically to correlate with small-cap outperformance—and has therefore been a reliable guide when considering allocations to small-cap stocks as compared with interest rates.

EXHIBIT 4: Cheaper valuations have strongly indicated higher small-cap returns.

Valuation Quintile	Average Valuation, Russell 2000	Average Russell 2000 Return, Next 12 Months (%)
1 (Least Expensive)	10.67	19.45
2	14.26	15.97
3	15.85	12.20
4	17.34	10.32
5 (Most Expensive)	20.46	-1.30

Valuation is average of the 387 month-end price to forward 12-month earnings valuations within each quintile. Average return is the average return over the next 12-month period as of the valuations included in the quintile. Index valuations measured as month-end price to forward 12-month earnings. Source: Factset, Bank of America/Merrill Lynch, Fidelity, Russell 2000 Index, Dec. 31, 1979 – Mar. 31, 2012. Last valuation point sampled is Mar. 31, 2011.

Valuations--Valuations are another important factor influencing the performance of small-cap stocks. Historically, and intuitively, small caps, like other equity segments, have tended to perform better when purchased at cheaper valuations. On average, small caps have traded at 15.7x forward earnings. As Exhibit 4 (above) demonstrates, paying higher multiples has tended to be a negative for small-cap performance in absolute terms, whereas paying lower multiples has yielded superior performance.

Exhibit 5 (below) examines the valuation of small-cap stocks relative to large caps (represented here by the Russell 1000 due to the availability of valuation data). Similar to the comparison of small-cap performance based on absolute valuation, small caps have tended to have better relative performance versus large caps when their valuations are cheaper than those of large caps.

EXHIBIT 5: Small caps historically outperform large caps when relative valuations are cheaper.

Relative Valuation Quintile	Average Valuation, Russell 2000 — Average Valuation, Russell 1000	Average Relative Return, Russell 2000 — Russell 1000 (%)
1 (Least Expensive)	-3.11	5.62
2	0.06	0.76
3	0.93	-1.80
4	1.43	-2.67
5 (Most Expensive)	2.51	-2.88

Valuation is average of the month-end price to forward 12-month earnings valuations within each quintile. Average return is the average return over the next 12-month period as of the valuations included in the quintile. Valuations measured as month-end price to forward 12-month earnings. Return on indexes is over next 12 months. Source: Russell 2000 Index, Russell 1000 Index, Bank of America/Merrill Lynch, Dec. 31, 1979 – Mar. 31, 2011. Last valuation point sampled is Mar. 31, 2011.

Given the evidence, we believe that interest rates alone may be neither a strong predictor of small-cap performance nor a reason by themselves to make decisions on allocations to small caps. Historically, a prudent strategy of paying cheaper multiples seems to add value over time, as does assessing the direction of economic cycles and activity as measured by GDP.

Active management may enhance small-cap portfolio stability in weaker markets

At Fidelity and Pyramis, we believe the U.S. small-cap sector is generally inefficient, and that fundamental research can add value. Data from 1986 through 2011 on active small-cap core managers from eVestment Alliance shows that the median active small-cap manager has added 5.6% of excess return on average in calendar years of negative performance for the Russell 2000, and added 3.4% on average in positive markets.² Thus, historically, active management has generated more risk-adjusted active return in down markets for small caps, partially insulating investors from losses in small-cap allocations.

EXHIBIT 6: Active management historically correlates with higher small-cap returns when small caps underperform large caps.



Performance data for actively managed small-cap investment strategies depicted in this chart were calculated based on the eInvestment Alliance small-cap manager database representing registered and unregistered investment strategies managed in the growth, core, and value styles and investing in U.S. stocks with market capitalizations ranging from \$750 million to \$1.5 billion. The holdings of these actively managed investment strategies differ from the holdings represented in the Russell 2000 Index. Median active manager data is gross of all fees and expenses. Returns depicted would be lower after deduction of expenses and fees. Source: eInvestment Alliance, Fidelity, Russell 2000 Index, S&P 500 Index, Jan. 1, 1986 – Dec. 31, 2011.

Similarly, examination of the performance of the average small-cap manager versus the Russell 2000 during the past 26 calendar years, represented by the green bars in Exhibit 6 (above), sorted by the relative performance of small caps vs. large caps, represented by the black line, shows that during years when small caps as an asset class have underperformed large caps (black line below zero), active management can at least partially insulate investors from weak absolute performance in small caps.

This dynamic highlights an interesting attribute of small-cap investing and active management within the space. Investors have long attempted to identify what causes the historical cyclical nature of small-cap performance. However, regardless of the stage of the cycle, on average, the median active manager has added over 4% of alpha versus the Russell 2000 over the past 26 calendar years ending Dec. 31, 2011.³ As the chart shows, active management has been even more powerful when investors need it most—when small-cap stocks are underperforming.

Investment implications

Well-diversified portfolios allocate across asset types, capitalization ranges, and industry sectors. This paper does not advocate allocating to one asset class over any other. Instead, it provides insight into considerations important to allocation decisions regarding U.S. small-cap stocks. While the conventional wisdom suggests that rising interest rates disadvantage stocks in general and favor large-cap stocks relative to small caps in particular, our research finds that small caps have historically outperformed in rising rate environments, both in absolute terms and relative to large caps. One possible reason for this outperformance is that interest rates may rise when economic growth is accelerating, and more robust growth is especially favorable to small-cap companies relative to their larger counterparts. Our research also finds that active management can add to small-cap portfolio stability in weaker markets. While we acknowledge that myriad additional factors such as currencies, growth expectations, and market directionality may also impact performance, consideration of those and other factors is beyond the scope of this paper.

Based on these findings, rising interest rates alone may not be enough reason for equity investors to reduce allocations to small caps relative to large caps, especially if other factors

that may coincide with rising interest rates, such as favorable valuations and economic growth, are also present.

Endnotes

1 Entire sample period from 1979 to 2012 has been characterized in the U.S. by a secular decline in interest rates. Analysis thus measures relatively short-term periods of rising and falling interest rates and contemporaneous stock index returns over a 33-year period of secularly declining interest rates.

2 Excess active return figure cited is gross of all fees and expenses. Returns cited would be lower after deduction of expenses and fees.

3 Excess active return figure cited is gross of all fees and expenses. Returns cited would be lower after deduction of expenses and fees. "Alpha" defined as excess return on fund relative to benchmark index.

Other Important Information

Past performance is no guarantee of future results.

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The securities of smaller, less well-known companies can be more volatile than those of larger companies.

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Indexes are unmanaged. It is not possible to invest directly in an index. The Russell 2000 Index is a subset of the Russell 3000® Index that includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

The Standard & Poor's 500® Index consists of 500 of the most widely held U.S.-based common stocks, chosen by the S&P Index Committee for market size, liquidity, and sector representation.

The Russell 1000 Index is a subset of the Russell 3000® Index that includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership.

The eVestment Alliance Database offers third-party institutional investment datasets covering strategies investing in the United States, the United Kingdom, Europe, Australia, Japan, and the Asia-Pacific region, as well as global, Europe, Australasia, and Far East (EAFE), and emerging market strategies. The eVestment Alliance records on small-cap manager performance begin in 1986.

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