Quantitative Review of U.S. Equities

Brandywine GLOBAL
A Franklin Templeton Company

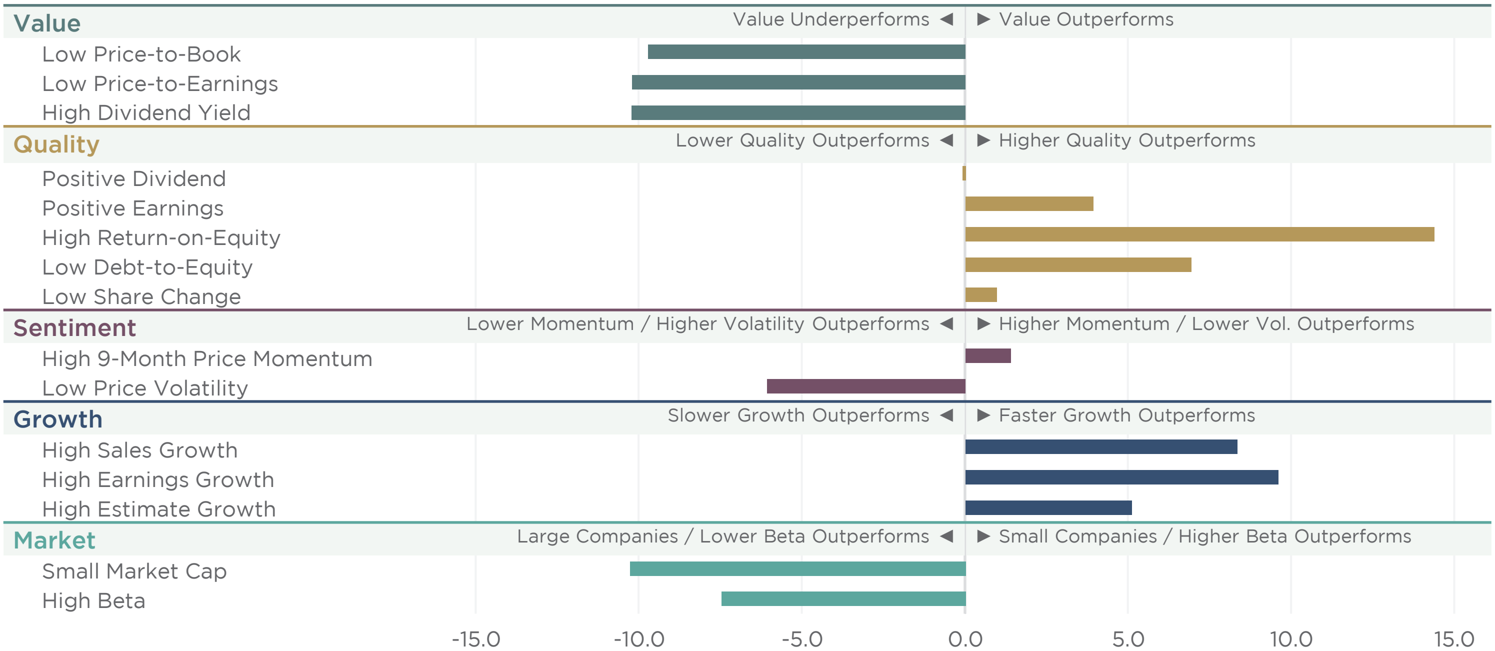
- U.S. equity markets continued to benefit from the economy's resilient response to the higher federal funds rate. Ongoing gross domestic product (GDP) growth and labor market's stability supported second-quarter stock market gains, at least among the large U.S. stocks. Avoiding a recession and slowly declining inflation rates led to higher long-term interest rates, although they declined later in the quarter.
- Growth factors, as in the first quarter and 2023, were positive, though again the gains were concentrated in a small group of large-technology stocks.
- Value factors again were weaker, particularly in the broad large-cap market, while performing better in the value and small-cap indices.
- As in the first quarter, quality variables did well, particularly in the broad large-cap market, even though quality often lags in market rallies.
- The quarter and year to date was so dominated by a narrow group of large-cap stocks that small caps, which often do well in positive markets, lagged considerably. Higher beta stocks also underperformed despite the market rally.
- Higher price momentum stocks generally did well this quarter, though only marginally so in larger-cap stocks and much better year to date.
- **Research Spotlight: The Stock Market's Narrow Leadership.** Once again, the U.S. equity market's returns were concentrated in a narrow group of growth tech stocks, while the rest of the market, including within other growth stocks, trailed behind. We review the return impact from these few market leaders.

A Note from Brandywine Global's Diversified Equity Team

This paper is the quarterly report by Brandywine Global's Diversified Equity team on quantitative factors impacting the U.S. equity markets. In each publication, we will provide a standardized report on factor behavior for the quarter and year-to-date periods. In addition, we will provide brief comments highlighting important and interesting trends in factor behavior and discuss recent work we are engaged in to better understand these trends. Understanding market performance through the unique lens of factor returns often brings early illumination to equity opportunities as well as areas of risk concentration. We use a longer-term perspective on the behavior of various factor returns to develop Diversified Equity strategies at Brandywine Global.

1 Second Quarter 2024 Russell 1000 Index Factor Returns

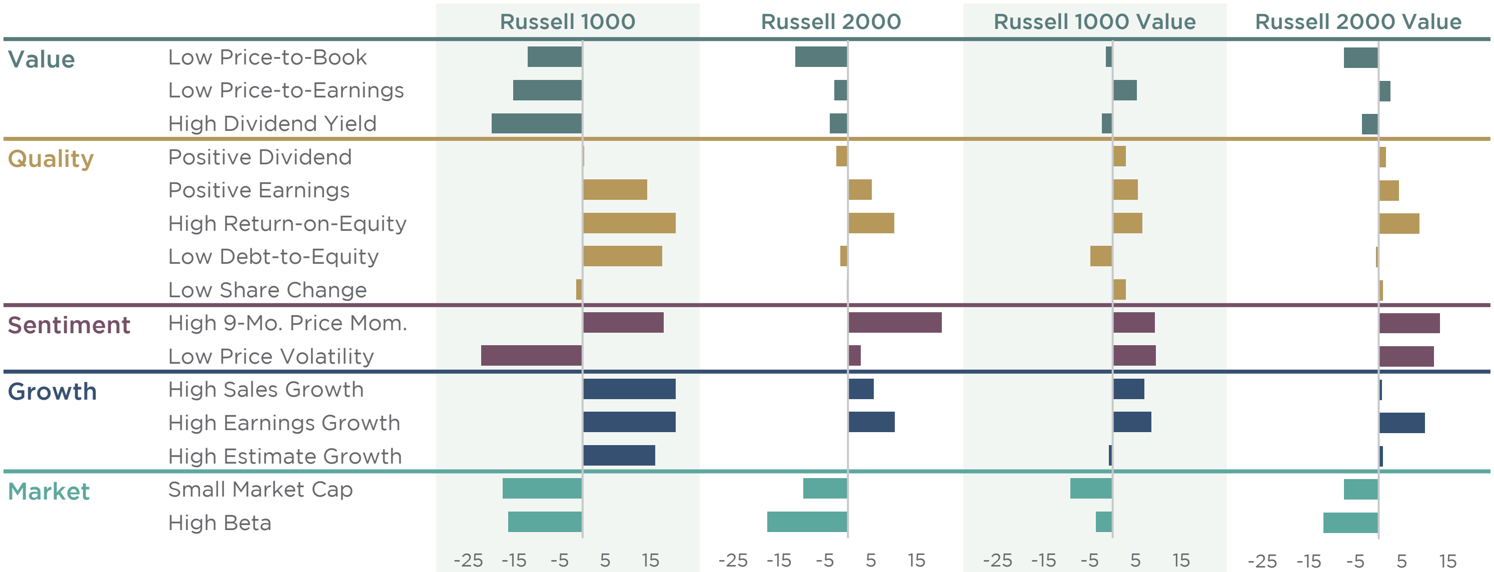
QTD; % Return Difference Between Factors'[1] High and Low Quartiles; Russell 1000 Index; As of 6/30/2024



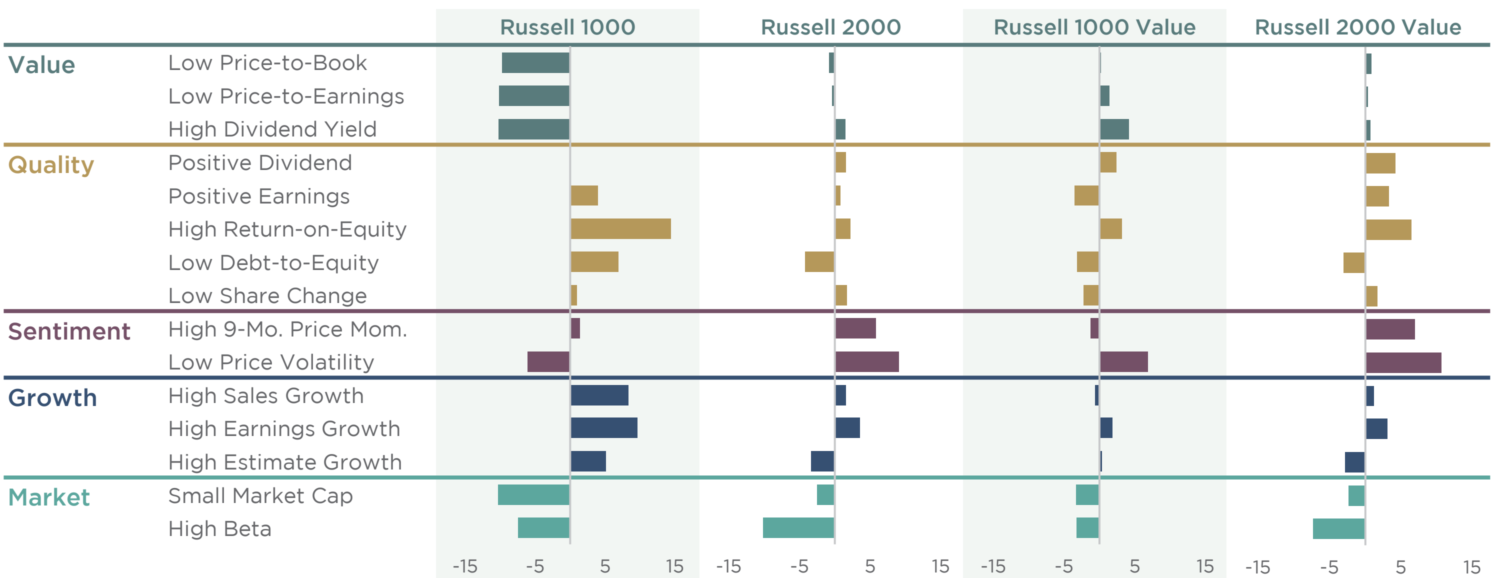
Source: Brandywine Global, FactSet, FTSE Russell

2 Various Russell Indices Second Quarter 2024 Factor Returns

YTD; % Return Difference Between Factors'[1] High and Low Quartiles; As of 6/30/2024



QTD; % Return Difference Between Factors'[2] High and Low Quartiles; As of 6/30/2024



Source: Brandywine Global, FactSet, FTSE Russell

Second Quarter 2024 Factor Returns

The large-cap U.S. equity market closed out the second quarter with solid gains as moderating inflation boosted optimism that the Federal Reserve (Fed) would lower interest rates later this year. The consumer price index (CPI) was unchanged in May, marking the first time in nearly two years that it did not rise monthly. Annually, headline CPI moderated to 3.3%, driven in part by declining energy prices. Although the economy is finally showing signs of decelerating from the long lag effects of higher interest rates, it is projected to expand approximately 2% for the recently completed second quarter. Long-term interest rates were generally higher in the quarter and year to date based on the resilient economy, though rates did decline from early quarter highs. The 10-year Treasury yield ended the quarter at 4.4%, rising from 4.2% at the second quarter's start and 3.9% at the end of 2023. Geopolitical uncertainty remains a threat to global growth as the conflict in the Middle East and the war in Ukraine continued, with the addition of the recent controversy surrounding the U.S. president's health.

Even though growth generally does poorly in rising interest rate environments, the growth factors were quite strong for the quarter and year to date. High sales growth, earnings growth, and expected growth all did well, particularly in the broad U.S. market, though less so among smaller caps and value stocks. The strength in growth factors' strength is reflected in the Russell U.S. stock indices with the Russell 1000 Growth Index ahead of the Russell 1000 Index 8.3% versus 3.6% for the quarter and 20.7% against 14.2% for 2024 to date. As described in more detail below, the strong growth returns continue to be concentrated in a narrow group of mostly large tech stocks that were boosted by the excitement over the adoption of artificial intelligence technology. In the Russell 1000 Index, tech was the largest sector weight among high sales growth stocks, representing 41% of the group. With this high sales growth group, some of the best performers year to date were the biggest capitalization companies,including Nvidia, up 49%; Microsoft, up 19.3%; Meta, up 42.7%; and Alphabet, up 30.5%. Meanwhile, low sales growth included significant weights in healthcare and utilities, which had much weaker returns.

Value factors faired particularly badly for the quarter and year to date in the broad large-cap U.S. market but were more mixed in smaller caps and value stocks. For instance, low price-to-earning (P/E) stocks lagged significantly within the Russell 1000 Index in the second quarter and 2024 so far, but they outperformed by small amounts in both periods in the Russell 1000 Value and Russell 2000 Value Indices. Within the Russell 1000 Index, the low P/E group had large weights in energy and financials, which were the sectors within low P/E which had negative returns for the quarter. At the same time, high P/E stocks were dominated by the same large-cap tech stocks, which drove the strong growth returns. On the other hand, for the Russell 1000 Value Index, the low P/E financials outperformed the rest of the index for the quarter and year while the high P/E tech stocks did not perform particularly well, contributing to the low P/E's factor's positive return within the large value universe.

FIGURE 3 presents the returns for the various Russell growth and value indices for the quarter and year to date. The gap between value and growth is far greater for large-cap stocks but much narrower in the smaller-cap indices.

3 Russell Value & Growth Index

As of 6/30/2024

	2024			
	Second Quarter		Year to Date	
	Growth	Value	Growth	Value
Russell 1000 Index	8.3%	-2.2%	20.7%	6.6%
Russell Midcap Index	-3.2%	-3.4%	6.0%	4.5%
Russell 2000 Index	-2.9%	-3.6%	4.4%	-0.9%
Russell Microcap Index	-5.6%	-5.1%	0.7%	-1.7%

Source: FTSE Russell

Quality factors historically are often defensive, yet in the last two quarters, positive earnings, high return-on-equity (ROE), and low share change were mostly positive. Repeating prior quarter trends, the factors were generally strongest among the broad large-cap U.S. market and did well across most U.S. equities, with low share change being the most variable factor. The same large outperforming tech stocks that drove the growth and high P/E returns also were responsible for the high ROE factor returns within the Russell 1000 Index. For the Russell 1000 Value Index, outperformance by the largest sectors among high ROE stocks, including industrials, consumer staples, and tech, offset weak high ROE healthcare returns and enabled the high ROE factor to outperform in the large value universe too.

As with quality factors, small-cap stocks and higher beta stocks performed uncharacteristically in the market rally this year, with both factors strongly negative across the U.S. equity market. In the Russell 1000 Index, smaller-cap tech stocks had a -3.8% return year to date, significantly lagging the larger tech stocks' 28.6% gain. The recent dominance of the large-cap tech stocks has left smaller caps significantly lagging over the last 18 months. **FIGURE 4** shows the returns across the various Russell indices by size in 2024 and highlights the strong large cap bias in this year's returns.

4 Russell U.S. Index

As of 6/30/2024

	2024	
	Second Quarter	Year to Date
Russell 1000 Index	3.6%	14.2%
Russell Midcap Index	-3.4%	5.0%
Russell 2000 Index	-3.3%	1.7%
Russell Microcap Index	-5.3%	-0.8%

Source: FTSE Russell

Higher stock price volatility is another factor that tends to do well in up stock markets. And these stocks did do well within the Russell 1000 Index this quarter and year, but this factor was significantly negative in other market segments. Again, the large-cap tech stocks recently have been quite volatile so their continued strong returns generated the positive return on price volatility. The rest of the market was less positive, particularly this quarter, so not surprisingly, the generally defensive low volatility stocks performed better outside the broad large-cap market.

Higher price momentum stocks have done well for the year but were more mixed for the quarter. The strong performance trend by the few large-cap tech stocks was the main driver of the year to date momentum factor return. For the quarter in the Russell 1000 Index, these tech stocks were a strong positive contributor to high momentum returns. However, these gains were partially offset by weak returns from financials and industrials this quarter; two groups that had positive momentum after performing relatively well in the past few quarters. Poor returns from these two sectors within the Russell 1000 Value Index also led to underperformance of the high momentum factor in the index this quarter.

Research Spotlight: The Stock Market's Narrow Leadership

A consistent theme runs through much of the performance and quantitative factor analysis for 2023 and the first half of 2024: The U.S. equity markets have been dominated by a narrow group of large, mostly tech growth names. Except for a brief pause in late 2023, these stocks have produced extraordinary returns, mostly driven by the stocks' perceived benefits from the artificial intelligence revolution. Meanwhile, the rest of the U.S. stock market, including the other growth names, produced more pedestrian returns. **FIGURE 5** shows the impact that NVIDIA and the top 10 index contributors had on the Russell 1000 Index and Russell 1000 Growth indices as well as the impact from the top 10 contributors in the Russell 1000 Value Index. Remarkably, for the year to date, excluding their respective top 10 contributors, the Russell 1000 Growth and Value indices returned nearly identical 4.2% gains compared with the full index returns of 20.7% for the Russell 1000 Growth Index and 6.6% for the Russell 1000 Value Index.

FIGURE 6 shows that Russell 1000 and 1000 Growth indices are now so concentrated in their top five holdings that these leading stocks will certainly continue to dictate index and factor returns regardless of how the rest of the U.S. equity market performs. This concentration is so high that the top five largest holdings in the Russell 1000 Growth Index represent almost 50% (49.2%) of the index's weighting as of early July. In other words, these five stocks, whether they continue to rise or begin to falter, will have as much impact on the Russell 1000 Growth Index as its other 401 stocks. For the foreseeable future, analysis of these indices must include a clear understanding of the indices' narrow concentration.

5 Index Returns

As of 6/30/2024

	Russell 1000 Index	Russell 1000 Growth Index	Russell 1000 Value Index
Second Quarter 2024			
Return	3.6%	8.3%	-2.2%
Return excluding NVIDIA	2.0%	5.8%	
Return excluding top 10	-2.1%	-1.9%	-3.2%
Year to Date 2024			
Return	14.2%	20.7%	6.6%
Return excluding NVIDIA	10.5%	14.0%	
Return excluding top 10	5.8%	4.2%	4.2%

Source: FTSE Russell

6 Weight in Index

As of 7/3/2024

Russell 1000 Index		Russell 1000 Growth Index		Russell 1000 Value Index	
Microsoft	6.83%	Microsoft	12.50%	Berkshire Hathaway	3.26%
Apple	6.46%	Apple	11.82%	JP Morgan Chase	2.54%
NVIDIA	5.88%	NVIDIA	10.76%	Exxon Mobil	2.20%
Alphabet	4.06%	Alphabet	7.43%	UnitedHealth	1.81%
Amazon	3.66%	Amazon	6.68%	Johnson & Johnson	1.53%
Top 5	**26.89%**	**Top 5**	**49.19%**	**Top 5**	**11.34%**

Source: FTSE Russell

[1] Factor returns represent return differences between top quartile (75%) and low quartile (25%) equities by each characteristic. Market: Market Capitalization and Market Beta (Market Sensitivity Coefficient); Value: Price-to-Earnings (P/E based on trailing 12-month operating earnings), Price-to-Book, Dividend Yield (Among dividend-paying stocks); Quality: Positive Earnings (Positive earnings stocks - Stocks with no earnings), Positive Dividend (Dividend-paying stocks - Stocks with no dividend), Share Change (12-month change in shares outstanding), Return-on-Equity, Debt-to-Equity; Sentiment: Price Momentum (9-month price change), Price Volatility; and Growth: Earnings Growth (1-year earnings growth), Sales Growth (1-year sales growth).

Data for Russell Index simulation prior to 1985 is obtained from Compustat (©2024) through FactSet Research (©2024) using Alpha Tester and CRSP NYSE Market Capitalization Decile information, all of which is believed to be reliable and accurate. FactSet provides fundamental stock and return calculations. Compustat provides fundamental stock information and price history. CRSP (Center for Research in Security Pricing) provides historical market capitalization groupings based on NYSE listed companies. Backtest simulation of index first calculates the top 1,000 stocks by market capitalization or the equivalent NYSE market-cap decile cut point to produce the same relative market capitalization range in earlier years when there were fewer listed companies. The value index is calculated using the lower half of companies in the market-cap range when ranked by price-to-book value. Rebalancing occurs annually at the end of June to maintain consistency with the Russell methodology. FTSE Russell was not involved in the simulation of the index prior to 1985. The views expressed represent the opinions of certain portfolio managers at Brandywine Global Investment Management, LLC (“Brandywine Global”) and are not intended as a forecast or guarantee of future results. The opinions expressed above may be contrary to active positioning within one or more of Brandywine Global’s strategies managed by a separate investment team. Data contained in this report is obtained from sources believed to be accurate and reliable. Brandywine Global will not undertake to supplement, update or revise such information at a later date. This information should not be considered a solicitation or an offer to provide any Brandywine Global service in any jurisdiction where it would be unlawful to do so under the laws of that jurisdiction. It should not be assumed that investments in any of the sectors or industries listed were or will prove profitable. The Russell 1000 Index measures the performance of the large-cap value segment of the U.S. equity universe. The Russell 2000 Index measures the performance of the small-cap value segment of the U.S. equity universe. The Russell 1000 Value Index and Russell 2000 Value Index include those companies with lower price-to-book ratios and lower forecasted growth values. The Russell 1000 Growth Index and Russell 2000 Growth Index include companies with higher price-to-book ratios and higher forecasted earnings growth values within their respective broad universes. The Russell Midcap Index measures the performance of the mid-cap segment of the U.S. equity universe. The Russell Microcap Index measures the performance of the microcap segment of the U.S. equity market. There is no guarantee that holding securities with relatively high (or low) price-to-earnings, price-to-book, or price-to-cash flow ratios will cause a security to outperform its benchmark or index. Standard and Poor’s 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. Standard & Poor’s S&P 500® Index is a registered trademark of Standard & Poor’s, a division of the McGraw-Hill Companies Inc. Indices are unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

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