

Quantitative Review of U.S. Equities

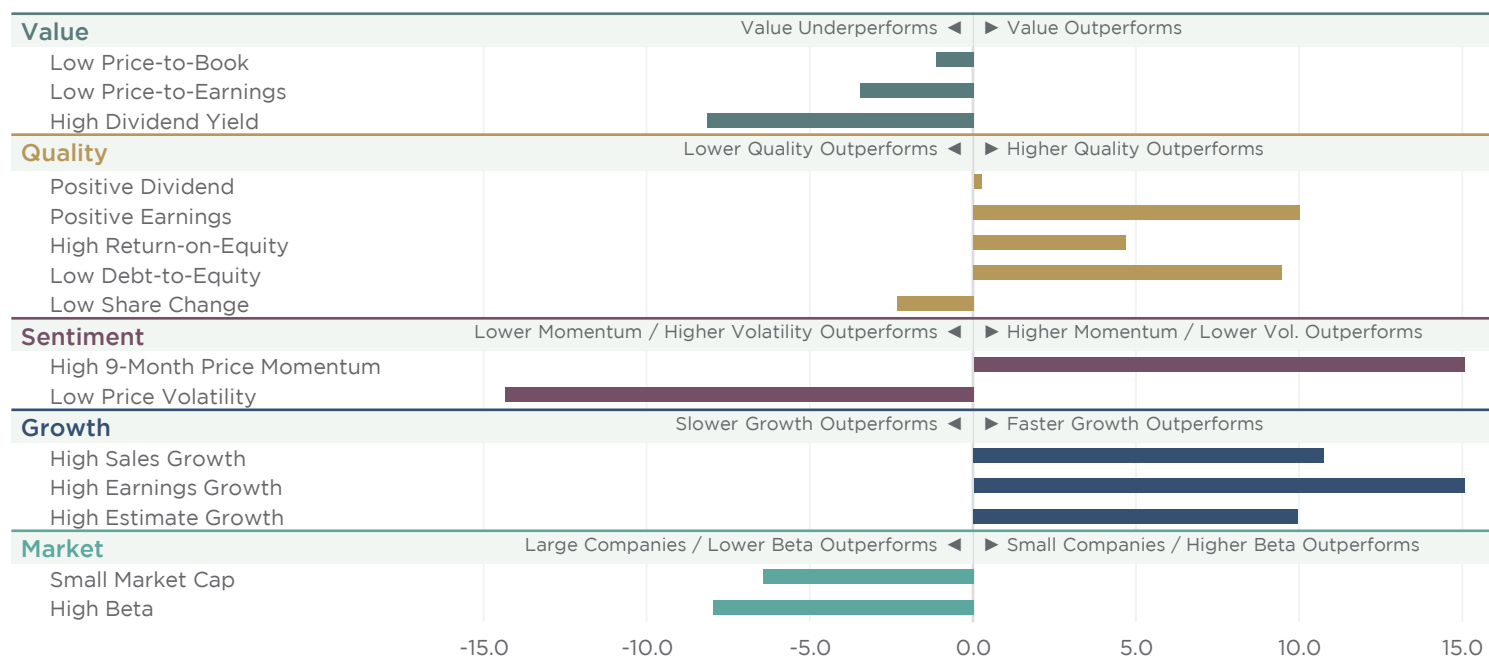
- Continued economic growth and positive labor market news in early 2024 led to a sustained U.S. stock rally, lower expectations for near-term Federal Reserve (Fed) rate cuts, and higher longer-term interest rates.
- Growth factors, which were quite strong for most of 2023, again produced positive results in the first quarter.
- Value factors, which rallied late last year after trailing earlier, were mostly negative. Lower valuation did better within value stocks than in the broader market.
- The Russell 1000 Growth Index gained 11.4% versus a return of 9.0% for the Russell 1000 Value Index. This gap is much smaller than 2023's 42.7% growth return versus the value index's 11.5% gain.
- Perhaps surprisingly given the strong market returns, quality factors, which tend to perform defensively, generally did well in the first quarter.
- At the same time, smaller-cap and higher beta stocks, which tend to do well in a market rally, lagged this quarter. Lower volatility stocks were more mixed depending on the market segment.
- Stocks with higher price momentum were strong performers early this year, driven by the consistently robust performance from growth factors in 2023 and early 2024.
- Research spotlight: Election outcomes and subsequent stock market return.** With upcoming U.S. presidential and congressional elections in November, we analyze how the U.S. equity market performed historically given different election results.

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 First Quarter 2024 Russell 1000 Index Factor Returns

QTD; % Return Difference Between Factors¹ High and Low Quartiles; Russell 1000 Index; As of 3/31/2024

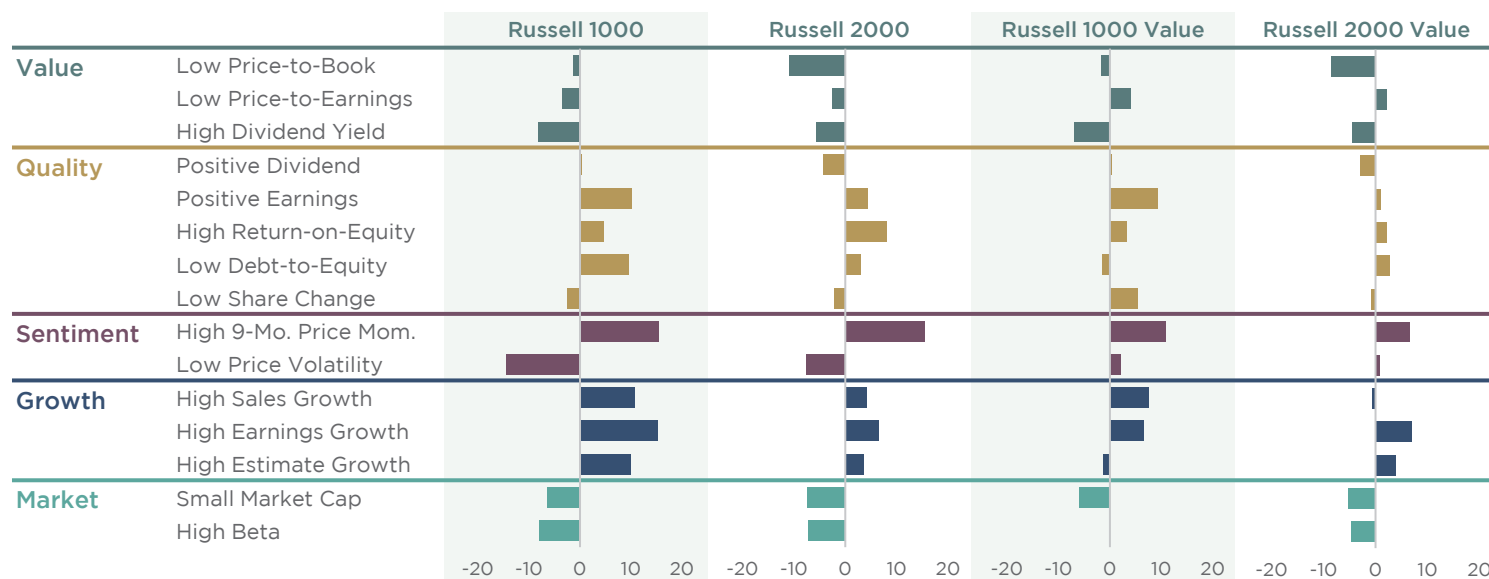


Source: Brandywine Global, FactSet, FTSE Russell



2 Various Russell Indices First Quarter 2024 Factor Returns

YTD; % Return Difference Between Factors' High and Low Quartiles; As of 3/31/2024



Source: Brandywine Global, FactSet, FTSE Russell

First Quarter 2024 Factor Returns

Better-than-expected fourth quarter gross domestic product (GDP) growth and continuing positive labor market statistics generated optimism that the U.S. economy could come through the Fed's inflation reduction efforts without triggering a recession. This good economic news, coupled with inflation rates that are down substantially but still stubbornly above Fed targets, also created concern about delays in the Fed's reserve rate cuts. Ten-year Treasury rates rose on the prospects for a brighter economic future, climbing to 4.2% as the quarter closed from 3.9% at year-end. U.S. equity markets, on balance, saw the economic developments as good news, and market returns continued to benefit from flows into artificial intelligence (AI) related stocks. Growth stocks again led the market's rise, however, as in 2023, these stocks' returns were concentrated in a few extremely high-returning leaders. Removing NVIDIA (up 82.5%), the microchip maker boosted by generative AI systems' processing demands, from the Russell 1000 Growth Index reduces the index's first quarter return to 7.7% from 11.4%, which is lower than the Russell 1000 Value Index's 9.0% gain. Removing the top 10 contributors from each index results in only a 2.2% growth index gain versus 8.3% for the value index. The Russell 1000 Index return falls to 5.9% from 10.3% without its top 10 contributors, the largest again being NVIDIA. **FIGURE 3** shows the biggest contributors to the Russell 1000 Index's first quarter performance.

On the strength of these growth leaders, the factors of high sales growth, high earnings growth, and high estimate growth were mostly quite positive. This held true for small- and large-cap stocks, although a few of these factors were slightly negative within value stocks. Within smaller caps, the growth outperformance comes from retailers and industrials with high growth rates more so than from tech and internet companies. The value factors of low price-to-earnings (P/E) and low

3 Top 10 Contributors to Russell 1000 Index Returns in Q1 2024

As of 3/31/2024

Security Name	Returns	
	Q1 2024	2023
NVIDIA Corporation	82.5%	239.0%
Microsoft Corporation	12.1%	58.2%
Meta Platforms Inc	37.3%	194.1%
Amazon.com, Inc.	18.7%	80.9%
Eli Lilly and Company	33.7%	60.9%
Berkshire Hathaway Inc.	17.9%	5.0%
Broadcom Inc.	19.2%	104.2%
JPMorgan Chase & Co.	18.5%	30.6%
Exxon Mobil Corporation	17.4%	-6.2%
Alphabet Inc.	8.0%	58.8%
Average	26.5%	82.5%
Russell 1000 Index	10.3%	26.4%

Source: FTSE Russell and Bloomberg (© 2024, Bloomberg Finance LP)



price-to-book were mostly negative for the quarter, though they did rally significantly in March. The low P/E factor was positive among small- and large-cap value stocks. **FIGURE 4** shows the performance advantage of the Russell growth indices in the first quarter.

Quality factors are often defensive, performing best in weak or down markets. However, despite positive first quarter market returns (even excluding those top contributors), most quality factors performed well in early 2024. Stocks with positive earnings, high return-on-equity (ROE), and low debt-to-equity all did well. Within the broad and growth sectors, the high ROE group had a large weighting in the high-performing tech names. However, even in the smaller-cap and value segments where technology was not so dominant, high ROE stocks did well. Low share change was an exception as it underperformed except among large-cap value stocks. Within the broad market, low share change was hurt most by the large weighting to Apple, which is buying back shares and fell 10.8% in the first quarter.

Small-cap stocks and higher beta stocks tend to perform directionally in-line with the U.S. stock market, outperforming when the market is positive. However, this quarter, both smaller-cap and higher beta stocks underperformed in an up market. The dominance of the largest growth names is a partial explanation for smaller stocks lagging, however, even in market segments where the large growth stocks were not present, smaller caps trailed consistently across most sectors. **FIGURE 5** shows the returns by market cap within the Russell indices.

Higher volatility stocks, on the other hand, performed similar to the historical patterns as they did well in this market rally. Only within the large- and small-cap value segments did higher volatility have neutral to negative returns.

Finally, high stock price momentum was among the strongest performing factors in the first quarter across all the Russell indices. The continued outperformance of the largest growth stocks was the main contributor to these results. However, even within the value segments where these high-performing growth stocks were not present, high momentum outperformed across most sectors.

Research Spotlight: Election Outcomes and Subsequent Stock Market Return

With the upcoming U.S. presidential and congressional elections in November, we analyzed how the U.S. equity market performed historically given different election results. Using Russell 1000 Index returns (estimated prior to 1986) from 1963 through 2023, we calculated monthly average returns depending on which political party, Republican or Democratic, controlled the White House, Senate, House of Representative, or some combination of the three.

FIGURE 6 shows that the broad U.S. market has performed best when Republicans are the majority in the Senate and the House, while the markets seemed to prefer a Democratic president. Perhaps more importantly, looking

4 Russell Value & Growth Index

As of 3/31/2024

	2024	
	First Quarter	
	Growth	Value
Russell 1000 Index	11.4%	9.0%
Russell Midcap Index	9.5%	8.2%
Russell 2000 Index	7.6%	2.9%
Russell Microcap Index	6.6%	3.6%

Source: FTSE Russell

5 Russell Index 1Q 2024 Returns by Market Capitalization

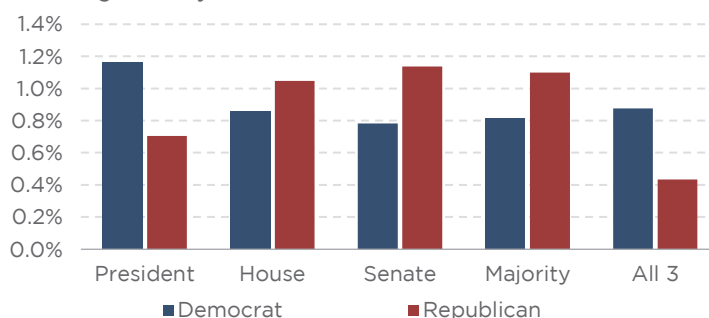
As of 3/31/2024

	2024
	First Quarter
Russell 1000 Index	10.3%
Russell Midcap Index	8.6%
Russell 2000 Index	5.2%
Russell Microcap Index	4.7%

Source: FTSE Russell

6 Market Return by Political Party: Russell 1000 Index

Avg. Monthly Returns: 1963-2023



Source: FTSE/Russell, "Single Party Control in Washington" Pew Research Center, Washington, D.C. (2/3/2021) <https://www.preresearch.org/short-reads>



at the various combinations of party control, when no party controls all three elected entities, the markets did better with Republicans winning two of three. However, when one party had won all three, the market performed better if Democrats were in control. Though not shown in the chart, the market did better with split control (1.04% monthly average return), regardless of which party dominated, than with one party taking the White House, Senate, and House (.72%).

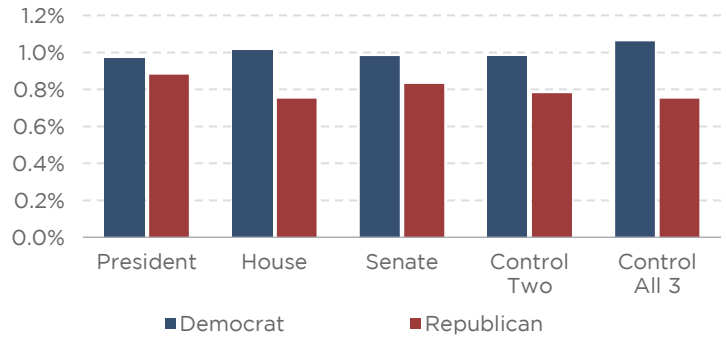
Of course, partisans will challenge any conclusion that one party benefits the equity markets more than the other. The common argument from the underperforming side is that party A benefited from the prior policies from party B when party A took control or that party B could not immediately fix the damage done previously by party A. Both perspectives may be valid since an economy as large as the United States can take a while to turn up and down or to see those changes recognized by the markets. Actions to stimulate or calm the economy and markets can take time, while the tenure of political actors is limited by elections and shifting public sentiment. **FIGURE 7** attempts to address these concerns by lagging market returns by two years for the presidential term and the House and Senate (in line with their two-year election cycle).

Lagging the presidential data evens out the result somewhat, suggesting a smaller difference between parties after allowing for one president's actions to influence the next president's term. Congressional results are inverted with Democratic control producing better market returns in the two years following their tenure and Democratic partial and full control also leading to higher market performance. The return differences between the two parties generally were narrower with the returns lagged than without lagging. Also, full control by one party was slightly better for the market (.96% monthly average return) than split control (.90%), again, regardless of which party dominated.

As always, analysis of this type has considerable variation around the averages, and the past is not always a clear predictor of the future. Nevertheless, this analysis helps dispel easy interpretations of which party is better for stock market returns.

7 | Market Return by Political Party: Russell 1000 Index

Avg. Monthly Returns Lagged Two Years: 1963-2023



Source: FTSE/Russell, "Single Party Control in Washington" Pew Research Center, Washington, D.C. (2/3/2021) <https://www.preresearch.org/short-reads>

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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