**Commentary** | Second Quarter 2024

## **Investment Research Update**

#### From the desk of

**Denise Chisholm** Director of Quantitative Market Strategy



## Performance Summary:

Investors embraced cyclical stocks including communication services and information technology in the first quarter of 2024. All sectors other than real estate generated a positive return. Energy posted a gain that topped the S&P 500<sup>®</sup> after it notched a loss in the fourth quarter of 2023. Consumer discretionary and utilities joined real estate as the worst quarterly performers.

		Weight in				
Sector	Latest Quarter	1-Year	3-Year Annualized	Dividend Yield	S&P 500 <sup>®</sup>	
Communication Services	15.8%	49.8%	6.9%	0.7%	9.0%	
Consumer Discretionary	5.0%	28.7%	4.3%	0.7%	10.3%	
Consumer Staples	7.5%	7.2%	8.0%	2.4%	6.0%	
k Energy	13.7%	17.7%	30.0%	3.2%	3.9%	
\$ Financials	12.5%	33.5%	9.5%	1.5%	13.2%	
Health Care	8.8%	16.1%	10.0%	1.5%	12.4%	
Industrials	11.0%	26.7%	10.4%	1.3%	8.8%	
Information Technology	12.7%	46.0%	19.0%	0.7%	29.6%	
Materials	8.9%	17.6%	7.9%	1.8%	2.4%	
Real Estate	-1.1%	8.7%	3.2%	3.5%	2.3%	
Utilities	4.6%	0.4%	4.1%	3.3%	2.2%	
S&P 500 <sup>®</sup>	10.6%	29.9%	11.5%	1.3%		

**Past performance is no guarantee of future results.** Sectors defined by the Global Industry Classification Standard (GICS<sup>®</sup>); see Index Definitions for details. Performance metrics reflect S&P 500 sector indexes. Changes were made to the GICS framework on 9/24/18; historical S&P 500 communication services sector data prior to 9/24/18 reflect the legacy telecommunication services sector. The top three performing sectors over each period are shaded green; the bottom three are shaded red. It is not possible to invest directly in an index. All indexes are unmanaged. Percentages may not total 100% due to rounding.



2 Source: Morningstar, FactSet as of 3/31/2024.

## Scorecard:

Potential for an earnings recovery and the long-term fundamental picture favored information technology. Consumer discretionary showed constructive contrarian indicators. Relative valuations favored financials. Conversely, earnings growth for consumer staplers seemed likely to lag in a broader recovery. Looking ahead, the defensive characteristics of utilities could hinder its performance.

	Strategist View	Longer	Time Horizon View	Shorter	
Sector	<ul> <li>Overweight</li> <li>Neutral</li> <li>Underweight</li> </ul>	Fundamentals	Valuations	Relative Strength	Comments
Communication Services		+		+	Defensive characteristics may hinder performance.
Consumer Discretionary		+	—		Constructive contrarian indicators.
Consumer Staples				_	Earnings growth may lag in a broader recovery.
Linergy			+	—	Indicators suggest a negative risk-reward.
\$ Financials			+	+	Relative valuation may limit further deterioration.
Health Care		_			The lowest valuations among defensive sectors.
industrials			—		Other predictive valuation indicators still compelling.
Information Technology		+	—	+	Earnings increasingly likely to recover.
Waterials		_			Valuation and economic indicators are supportive.
Real Estate		—			Lower rates and high valuation spreads suggest attractive risk-reward.
Utilities			+	—	Defensive characteristics may hinder performance.

**Past performance is no guarantee of future results.** Strategist view, fundamentals, valuations, and relative strength are based on the top 3,000 U.S. stocks by market capitalization. Sectors defined by the GICS; see Index Definitions for details. Historical communication services data has been restated back to 1962 to account for changes to the GICS framework made on 9/24/18. **Strategist view** is as of the date indicated based on the information available at that time and may change based on market or other conditions. This is not necessarily the opinion of Fidelity Investments or its affiliates. Fidelity does not assume any duty to update any of the information. Overweight and underweight views represent opportunistic tilts in a hypothetical portfolio relative to broad market sector weights. Sector weights may vary depending on an individual's risk tolerance and goals. Time horizon view factors are based on historical analysis and are not a

qualitative assessment by any individual investment professional. The top three sectors based on each time horizon view metric are shaded green; the bottom three are shaded red. See Glossary and Methodology for details. It is not possible to invest directly in an index. All indexes are unmanaged. Source: Haver Analytics, FactSet,

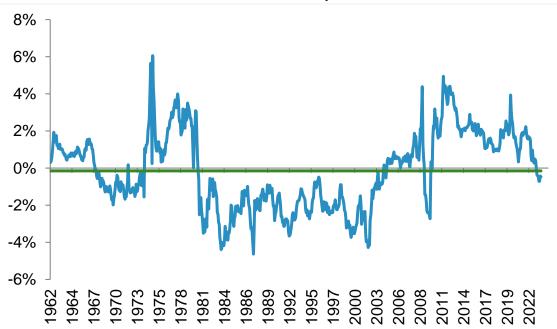


**3** Fidelity Investments, as of 3/30/2024.

## Stocks may have room to run

Investors may worry that the stock market rally that began in October 2022 and accelerated late in 2023 has made equities expensive. As of March, however, stocks' valuations relative to bonds stood near the middle of their historical range going back to 1962, reaching the third quartile (left). After relative valuations reached similar levels in the past, the S&P 500 advanced about 74% of the time over the next 12 months (right).

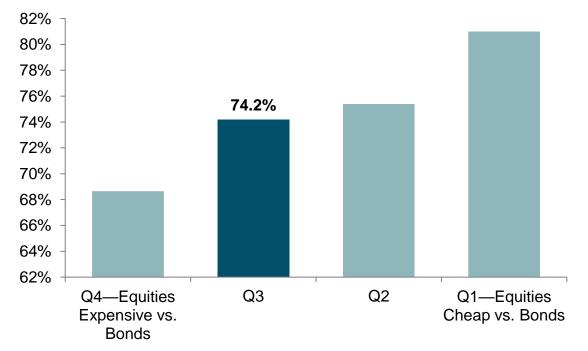
#### Stocks remain reasonably priced relative to bonds



Relative Valuation Based on Average Stocks' Trailing Earnings Yield Minus the Yield on the 10-Year U.S. Treasury Note, 1962–Present

## Stocks usually advanced from comparable relative valuations in the past

Historical odds of NTM S&P 500 Advance in Quartiles of Relative Valuation for Stocks vs. Bonds, 1962–Present



Past performance is no guarantee of future results. Sources: Haver Analytics, FactSet, Fidelity Investments, as of 3/31/2024. Data analyzed monthly since January 1962. Analysis based on the S&P 500. LEFT: Trailing earnings yield: Average ratio of S&P 500 companies' earnings per share to their stock price, based on last-12-month earnings. The chart depicts that stocks' recent valuations are just slightly higher than that of bonds, based on the earnings yield
4 minus bond yields. The green line is the average since 1962. RIGHT: NTM: Next twelve months.

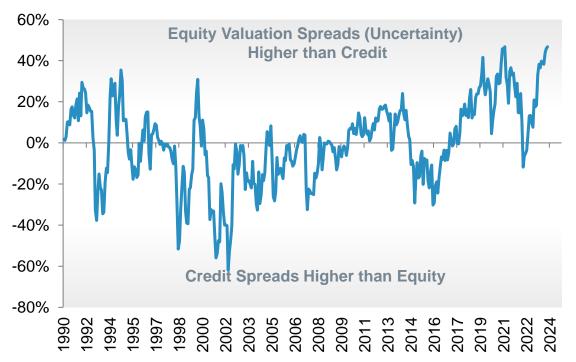


## Wider equity spreads has been bullish for stocks

Equity-valuation spreads recently were notably wider than high-yield credit spreads, suggesting that more fear was priced into the equity market than the bond market (left). Since December 1990, after the difference between equity valuation spreads and credit spreads was in its top quartile, the market returned an average of 16.4% over the next 12 months (right).

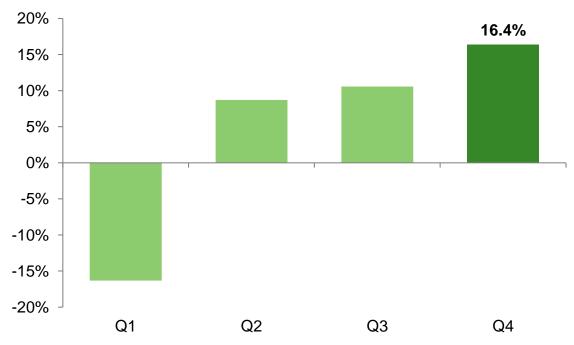
#### Equity spreads have been wider than high yield credit spreads

Percentile Rank S&P 500 Book Yield Spread vs. Percentile Rank High Yield Option-Adjusted Spread, December 1990–Present



#### Stocks posted strong gains after comparable scenarios in the past

Average NTM S&P 500 Returns in Quartiles of Equity Valuation Spreads vs. High-Yield Credit Spreads, 1990–Present



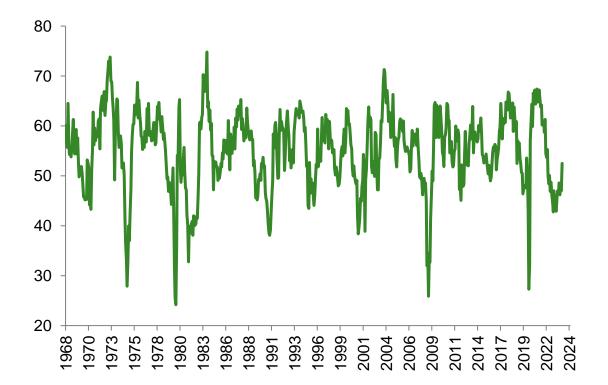
Past performance is no guarantee of future results. Analysis based on the S&P 500. Sources: Haver Analytics, FactSet, Fidelity Investments, as of 1/31/2024. Data analyzed monthly since December 1990. LEFT: Equity valuation spreads measure the gap between the average book yields of the most- and least-expensive 25% of companies in the S&P 500. Option-adjusted spread measures the difference between the average yield on the Bloomberg US Corporate High Yield Index
and the yield on the 10-year U.S. Treasury. RIGHT: NTM: Next 12 months.



## Growth in new manufacturing orders may support corporate earnings

Strong new order growth typically reflects evidence of an economic expansion that may help support corporate earnings. The ISM Manufacturing New Orders index increased rapidly over the six months through January, posting gains in the top decile of its range since 1968 (left). Historically, a top-decile six-month increase in this index signaled positive earnings growth over the next 12 months 92% of the time (right).

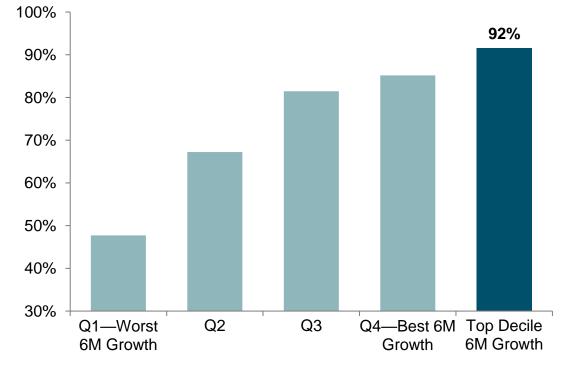
#### New manufacturing orders have increased



ISM Manufacturing Index New Orders, 1968–Present

## Earnings historically tended to advance after strong growth in new orders

Historical Odds of Positive NTM EPS Growth in Quartiles and Deciles of Prior Six-Month Percent Change in ISM Manufacturing Index New Orders, 1968–Present



Past performance is no guarantee of future results. ISM: Institute for Supply Management. Data analyzed monthly since January 1968. Sources: Haver Analytics, FactSet,
Fidelity Investments, as of 1/31/2024. RIGHT: NTM: Next twelve months. EPS: Earnings per share. Analysis based on Fidelity top U.S. 3,000 stocks by market capitalization.



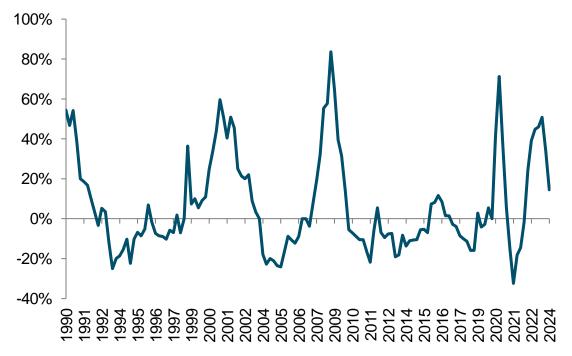
## Loosening lending standards also might boost earnings

In March, the U.S. Federal Reserve Board Senior Loan Officer Survey noted a drop in the number of senior bank officers who reported tighter standards for commercial and industrial loans to large firms. This decline represented loosening standards in the top 5% of all six-month periods dating to June 1990 (left). Over this time frame, earnings grew over the 12 months following every previous six-month period with a top-5% decrease in the number of officers reporting tighter lending standards (right).

#### Fewer bank officers reported tighter lending

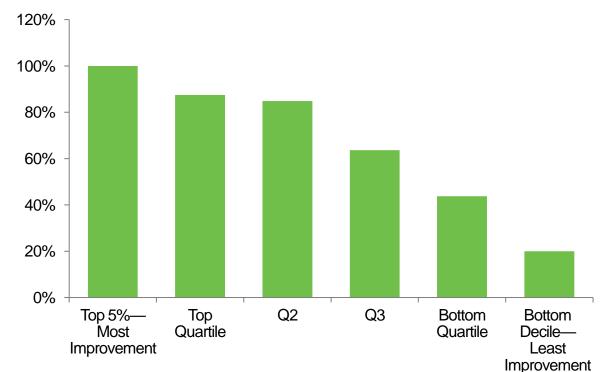
7

Percentage of Banks Tightening Commercial and Industrial Loans to Large Firms, June 1990–Present



#### Looser lending has been good for earnings

Odds of Positive EPS Growth over NTM in Quartiles and Deciles of Six-Month Improvement in Commercial and Industrial Lending Standards, June 1990–Present



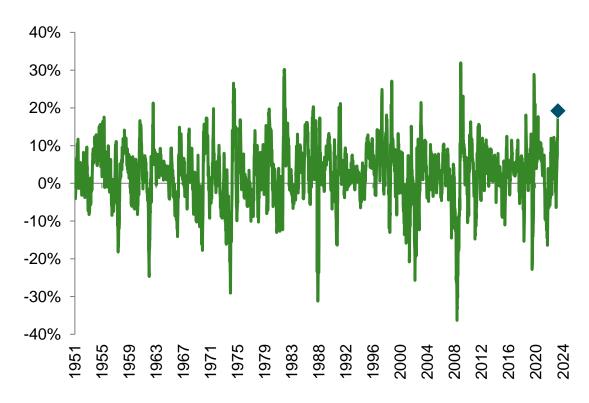
Past performance is no guarantee of future results. Data analyzed quarterly since June 1990. Sources: Haver Analytics, FactSet, Fidelity Investments, as of March 2024. RIGHT: EPS: Earnings per share. NTM: Next twelve months. Analysis based on Fidelity top U.S. 3,000 stocks by market capitalization. There were five top-5% instances in the time period under review.

**Fidelity** 

## Stock-market momentum has been persistent, historically

The stock market's gain for the 15 weeks through February 9 was in the top 1% of its historical range (left), leading some investors to worry that stocks had gained too much too quickly. Yet strong momentum historically has been a positive signal: After previous times the S&P 500 posted a 15-week gain in the top 1% of its historical range, it advanced over the next 12 months 98% of the time (right).

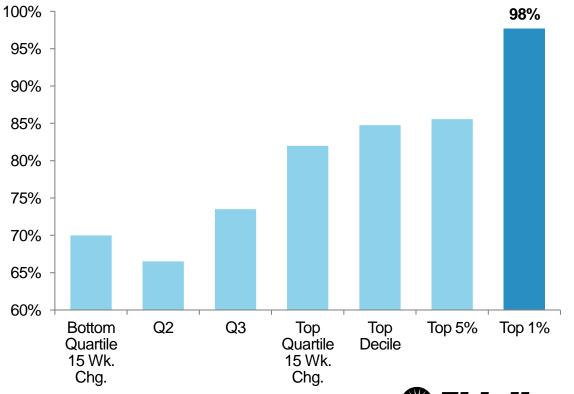
#### Stocks have risen rapidly



15-Week Percent Change in the S&P 500, 1951–Present

#### Strong momentum has signaled market advances

Historical odds of NTM Market Advance in Quartiles & Percentiles of Prior 15-Week Change, 1951–Present



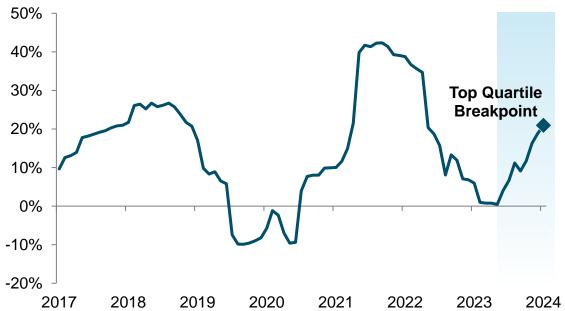
Past performance is no guarantee of future results. Analysis based on the S&P 500. Data analyzed weekly since April 1951. Sources: Haver Analytics, FactSet,

8 Fidelity Investments, as of 2/29/2024. RIGHT: NTM: Next twelve months.

## Tech earnings have increased rapidly across the sector

Analysts' 12-month earnings forecasts for technology companies have increased year-over-year since the spring of 2023. In January 2024, forecasts were almost 21% higher than they were a year earlier, representing an acceleration in earnings expectations in the top quartile of the range since 1977 (left). The recent improvement has been broad-based, with profit margins increasing rapidly for tech companies with low, middle and high margins (right).

#### Tech earnings forecasts have increased at a historic pace

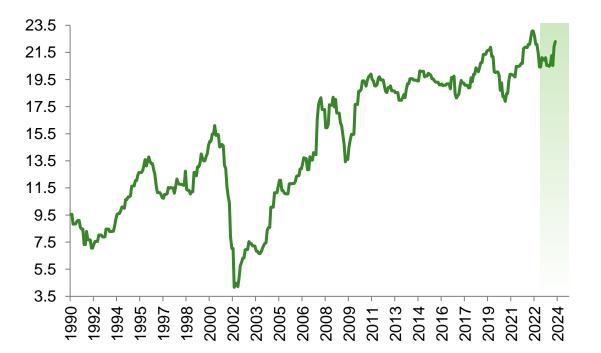


9

Percent Year-to-Year Change in Information Technology Cap-Weighted Forward Earnings Estimates, 1977–Present

#### Median tech margins recently approached all-time highs

Information Technology Operating Margins, 50th Percentile Breakpoint, 1990–Present



Past performance is no guarantee of future results. Sources: Haver Analytics and Fidelity Investments, as of 1/31/24. LEFT: Cap-Weighted Forward Earnings: Forward earnings based on the average of analysts' published earnings estimates for the next 12 months, weighted by company market capitalization. Analysis based on Fidelity top U.S. 3,000 stocks by market capitalization. All data gathered and analyzed monthly from January 1977 to January 2024. RIGHT: Operating margin: The ratio of operating income to revenue. All data gathered and analyzed monthly from December 1990 to January 2024. Analysis based on the S&P 500. Sources: Haver Analytics and Fidelity Investments, as of 1/31/24.



# Accelerating earnings forecasts for tech have been a positive signal for the sector's returns and for broad-market earnings

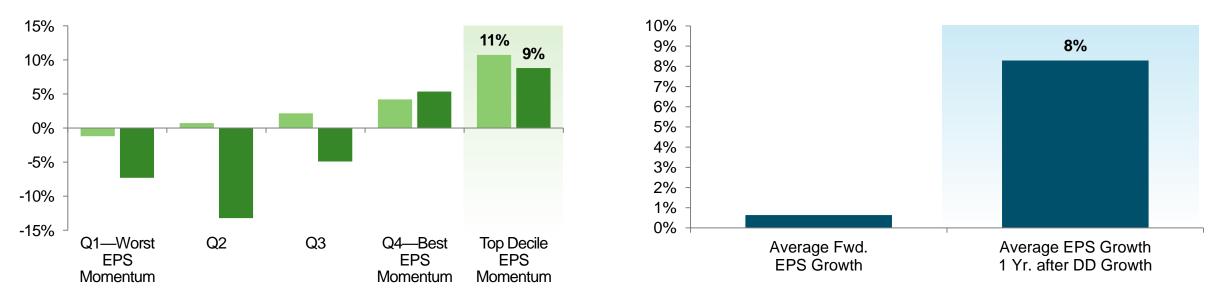
Historically, when technology companies had forward earnings momentum in the top decile and forward price-to-earnings ratios in the top quartile, as they did in January, their stocks beat the market by an average of 9% over the next 12 months (left). Also, strong earnings forecasts for tech stocks have prefaced strong earnings for the broader market (right).

#### Tech has historically outperformed after top-decile earnings momentum

NTM Relative Performance of Information Technology Stocks in Quartiles & Deciles of LTM Relative Forward EPS Momentum, February 1976–Present

- Avg NTM Tech Relative Performance
- Avg NTM RelPerf when Tech is Expensive (Top Quartile Rel Fwd PE)

#### Accelerating tech EPS estimates have signaled broader earnings growth Average S&P 500 Fwd EPS Growth in Quartiles of Prior Technology Fwd EPS Growth, 1977–Present



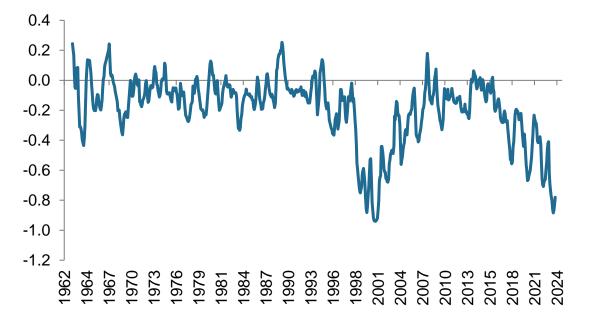
**Past performance is no guarantee of future results.** Sources: Haver Analytics and Fidelity Investments, as of 1/31/24. LEFT: NTM: Next twelve months. LTM: Last twelve months. Forward EPS is forward earnings per share, which uses the average of analysts' published earnings estimates for the next 12 months. Analysis based on Fidelity top U.S. 3,000 stocks by market capitalization. All data gathered and analyzed monthly from February 1976 to January 2024. RIGHT: DD is "double-digit." EPS is earnings per share. Fwd EPS: Forward earnings per share. There were 133 instances with top-quartile tech sector forward EPS growth. Stock return analysis based on the S&P 500. All data gathered and analyzed monthly from February 2024.



## Tech's rally may spread to other cyclical sectors, based on history

Investors may be concerned that while tech has rallied, much of the market has not. During tech's strong run, its correlation has been low to most sectors, except those that have been historically interconnected with tech, such as communications and consumer discretionary (left). In the past, comparable situations have led to gains for other cyclical sectors (right).

#### Tech has been out of step with most of the market

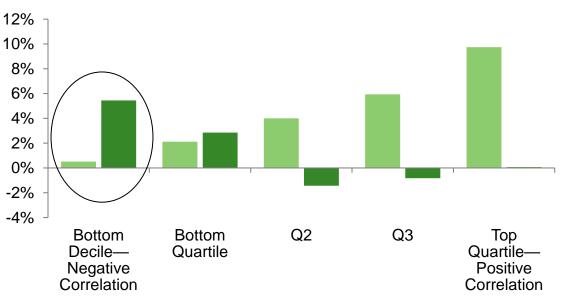


Twelve-Month Rolling Tech Correlations to Other Sectors, ex Consumer Discretionary and Communications, 1962–Present

#### Other cyclicals have gained after similar periods

Average NTM Outperformance in Quartiles and Deciles of Technology Correlation to Other Sectors (ex Consumer Discretionary and Communications), 1962–Present

NTM Average Outperformance Tech
 NTM Average Outperformance Other Cyclicals



Past performance is no guarantee of future results. Data analyzed monthly since January 1962. Sources: Haver Analytics, FactSet, Fidelity Investments, as of 2/29/2024. RIGHT: NTM: Next twelve months. Cyclical sectors include communication services, consumer discretionary, energy, financials, industrials, materials, real
 estate, and technology.

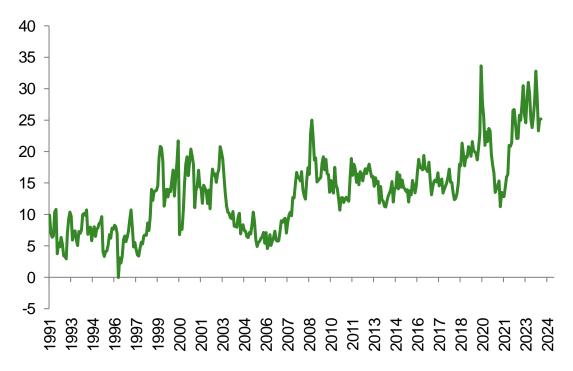


## For small caps, extremely low relative valuations have been bullish

As of February 2024, small caps looked cheap compared with large caps, with average book yields much higher for the small-cap focused Russell 2000 than the large-cap S&P 500 (left). Small caps' relative valuations recently reached the cheapest 5% of their historical range since 1990; every other time small caps were this cheap versus large caps, small cap stocks outperformed large caps over the next 12 months (right).

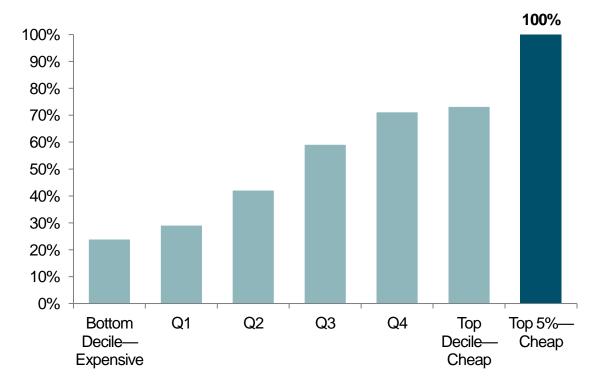
#### Small caps look historically cheap relative to large caps

Russell 2000 Book Yield Minus S&P 500 Book Yield, December 1990–Present (Higher Is Cheaper)



#### Low relative valuations have signaled outperformance

Odds of Russell 2000 Outperforming S&P 500 in Relative Valuation Quartiles & Deciles, December 1990–Present, Average NTM Rolling



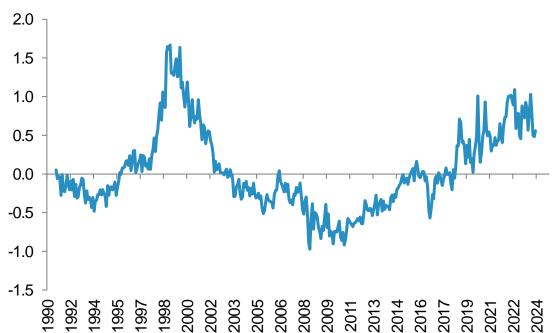
Past performance is no guarantee of future results. Data analyzed monthly since December 1990. Analysis based on the S&P 500 and the Russell 2000. Sources:
Haver Analytics, FactSet, Fidelity Investments, as of 2/29/2024. RIGHT: NTM: Next twelve months. There were five instances in the top 5% in this period analyzed.



## Mid caps' setup looks much like small caps'

Investors intrigued by low relative valuations but worried about the risks of owning small caps might consider mid caps instead. The mid-cap S&P 400's forward EPS yield was in the top 10% of its range versus the S&P 500 as of February (left). In the 28 previous instances since 1990 when mid-caps' relative valuation reached top-decile levels, they outperformed large caps by an average of 15% over the next 12 months (right).

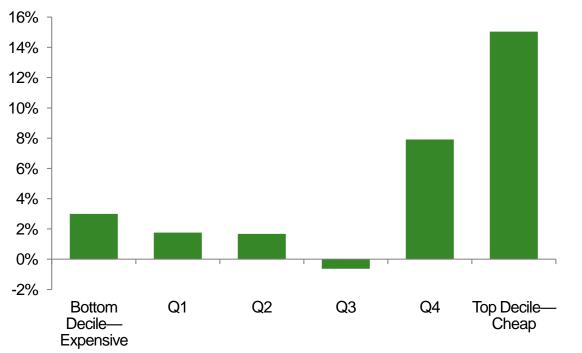
#### Mid caps looked inexpensive relative to large caps



Relative Forward EPS Yield for S&P 400 vs. S&P 500 (Higher Is Cheaper), 1990–Present

### Low valuations compared with large caps have signaled mid-cap outperformance

Average Rolling NTM Relative Performance in Relative Valuation Quartiles and Deciles for the S&P 400 vs. S&P 500, 1990–Present



Past performance is no guarantee of future results. Data analyzed monthly since December 1990. Analysis based on the S&P 500 and the S&P 400. Sources: Haver Analytics, FactSet, Fidelity Investments, as of 2/29/2024. LEFT: EPS: Earnings per share. Fwd EPS: Forward earnings per share. Forward earnings per share typically uses an average of analysts' published earnings estimates for the next 12 months. RIGHT: NTM: Next twelve months.



## Glossary and methodology

#### Glossary

**Book Yield:** Calculates the yield to maturity, or the coupon return plus amortization, of a fixed-income investment.

**Cycle Hit Rate:** Calculates the frequency of a sector outperforming the broader equity market over each business cycle phase since 1962.

Dividend Yield: Annual dividends per share divided by share price.

**Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA):** A non-GAAP measure often used to compare profitability between companies and industries, because it eliminates the effects of financing and accounting decisions.

**Earnings-per-Share Growth:** Measures the growth in reported earnings per share over the specified past time period.

**Earnings Yield:** Earnings per share divided by share price. It is the inverse of the price-to-earnings (P/E) ratio.

**Enterprise Value:** A measure of a company's total value that includes its market capitalization as well as short- and long-term debt and cash on its balance sheet.

**Free Cash Flow (FCF):** The amount of cash a company has remaining after expenses, debt service, capital expenditures, and dividends. High free cash flow typically suggests stronger company value.

**Free-Cash-Flow Margin:** The amount of free cash flow as a percentage of revenue. High FCF margin often denotes strong profitability.

**Free-Cash-Flow Yield:** Free cash flow per share divided by share price. A high FCF yield often represents a good investment opportunity, because investors would be paying a reasonable price for healthy cash earnings.

**Full-Phase Average Performance:** Calculates the (geometric) average performance of a sector in a particular phase of the business cycle and subtracts the performance of the broader equity market.

**Median Monthly Difference:** Calculates the difference in the monthly performance of a sector compared with the broader market, and then takes the midpoint of those observations.

**Price-to-Book (P/B) Ratio:** The ratio of a company's share price to reported accumulated profits and capital.

**Price-to-Earnings (P/E) Ratio:** The ratio of a company's current share price to its reported earnings. A forward P/E ratio typically uses an average of analysts' published earnings estimates for the next 12 months.

Price-to-Sales (P/S) Ratio: The ratio of a company's current share price to reported sales.

**Relative Strength:** The comparison of a security's performance relative to a benchmark, typically a market index.

**Return on Equity (ROE):** The amount, expressed as a percentage, earned on a company's common stock investment for a given period.

**Risk Decomposition:** A mathematical analysis that estimates the relative contribution of various sources of volatility.

#### Methodology

**Strategist View:** Our sector strategist, Denise Chisholm, tracks key indicators that have influenced the historical likelihood of outperformance of each sector. This historical probability analysis informs the Strategist Views.

**Fundamentals:** Sector rankings are based on equally weighting the following four fundamental factors: EBITDA growth, earnings growth, ROE, and FCF margin. However, we evaluate the financials and real estate sectors only on earnings growth and ROE because of differences in their business models and accounting standards.

**Relative Strength:** Compares the strength of a sector versus the S&P 500 index over a six-month period, with a one-month reversal on the latest month; identifying relative strength patterns can be a useful indicator of short-term sector performance.

**Relative Valuations:** Valuation metrics for each sector are relative to the S&P 500. Ratios compute the current relative valuation divided by the 10-year historical average relative valuation, eliminating the top 5% and bottom 5% values to reduce the effect of potential outliers. Sectors are then ranked by their weighted average ratios, weighted as follows: P/E: 37%; P/B: 21%; P/S: 21%; and FCF yield: 21%. However, the financials and real estate sectors are weighted as follows: P/E: 65% and P/B: 35%.



## Appendix

Information presented herein is for discussion and illustrative purposes only and is not a recommendation or an offer or a solicitation to buy or sell any securities. Views expressed are as 3/31/24, based on the information available at that time, and may change based on market and other conditions. Unless otherwise noted, the opinions provided are those of the authors and not necessarily those of Fidelity Investments or its affiliates. Fidelity does not assume any duty to update any of the information.

Information provided in, and presentation of, this document are for informational and educational purposes only and are not a recommendation to take any particular action, or any action at all, nor an offer or solicitation to buy or sell any securities or services presented. It is not investment advice. Fidelity does not provide legal or tax advice.

References to specific investment themes are for illustrative purposes only and should not be construed as recommendations or investment advice. Investment decisions should be based on an individual's own goals, time horizon, and tolerance for risk.

This piece may contain assumptions that are "forward-looking statements," which are based on certain assumptions of future events. Actual events are difficult to predict and may differ from those assumed. There can be no assurance that forward-looking statements will materialize or that actual returns or results will not be materially different from those described here.

#### Past performance is no guarantee of future results.

#### Investing involves risk, including risk of loss.

All indexes are unmanaged. You cannot invest directly in an index. Index or benchmark performance presented in this document does not reflect the deduction of advisory fees, transaction charges, and other expenses, which would reduce performance.

Stock markets are volatile and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments.

Because of its narrow focus, sector investing tends to be more volatile than investments that diversify across many sectors and companies. Sector investing is also subject to the additional

risks associated with its particular industry. The Energy sector is defined as companies whose businesses are dominated by either of the following activities: the construction or provision of oil rigs, drilling equipment, or other energy-related services and equipment, including seismic data collection; or the exploration, production, marketing, refining, and/or transportation of oil

and gas products, coal, and consumable fuels. Financials: companies involved in activities such as banking, consumer finance, investment banking and brokerage, asset management, and insurance and investments.

The energy industries can be significantly affected by fluctuations in energy prices and supply and demand of energy fuels, energy conservation, the success of exploration projects, and tax and other government regulations.

The technology industries can be significantly affected by obsolescence of existing technology, short product cycles, falling prices and profits, competition from new market entrants, and general economic condition.

**Index Definitions:** The Russell 3000<sup>®</sup> Index is a market capitalization-weighted index designed to measure the performance of the 3,000 largest companies in the U.S. equity market.

The Russell 2000<sup>®</sup> Index is a market capitalization-weighted index designed to measure the performance of the small-cap segment of the US equity market. It includes approximately 2,000 of the smallest securities in the Russell 3000 Index.

The S&P 500<sup>®</sup> index is a market capitalization-weighted index of 500 common stocks chosen for market size, liquidity, and industry group representation to represent U.S. equity performance. S&P 500 is a registered service mark of Standard & Poor's Financial Services LLC. Sectors and industries are defined by the Global Industry Classification Standard (GICS).

The S&P 500 sector indexes include the standard GICS sectors that make up the S&P 500 index. The market capitalization of all S&P 500 sector indexes together comprises the market capitalization of the parent S&P 500 index; each member of the S&P 500 index is assigned to one (and only one) sector.

S&P 400 Index is a market capitalization–weighted index of 400 mid cap stocks of US companies chosen for market size, liquidity, and industry group representation.





Sectors are defined as follows: Communication Services: companies that facilitate communication or provide access to entertainment content and other information through various types of media. Consumer Discretionary: companies that provide goods and services that people want but don't necessarily need, such as televisions, cars, and sporting goods; these businesses tend to be the most sensitive to economic cycles. Consumer Staples: companies that provide goods and services that people use on a daily basis, like food, household products, and personal-care products; these businesses tend to be less sensitive to economic cycles. Energy: companies whose businesses are dominated by either of the following activities: the construction or provision of oil rigs, drilling equipment, or other energyrelated services and equipment, including seismic data collection; or the exploration, production, marketing, refining, and/or transportation of oil and gas products, coal, and consumable fuels. Financials: companies involved in activities such as banking, consumer finance, investment banking and brokerage, asset management, and insurance and investments. Health Care: companies in two main industry groups: health care equipment suppliers and manufacturers, and providers of health care services; and companies involved in the research, development, production, and marketing of pharmaceuticals and biotechnology products. Industrials: companies whose businesses manufacture and distribute capital goods, provide commercial services and supplies, or provide transportation services. Materials: companies that are engaged in a wide range of commodity-related manufacturing. Real Estate: companies in two main industry groups-real estate investment trusts (REITs), and real estate management and development companies. Technology: companies in technology software and services and technology hardware and equipment. Utilities: companies considered to be electric, gas, or water utilities, or companies that operate as independent producers and/or distributors of power.

Third-party marks are the property of their respective owners; all other marks are the property of FMR LLC.

This material may be distributed through the following businesses: Fidelity Investments provides investment products through Fidelity Distributors Company LLC; clearing, custody, or other brokerage services through National Financial Services LLC or Fidelity Brokerage Services LLC (Members NYSE, SIPC); and institutional advisory services through Fidelity Institutional Wealth Adviser LLC.

Personal and workplace investment products are provided by Fidelity Brokerage Services LLC, Member NYSE, SIPC.

Institutional asset management is provided by FIAM LLC and Fidelity Institutional Asset Management Trust Company.

1142573.1.0

© 2024 FMR LLC. All rights reserved.

