



Topical Research:

Investment Cycles in Growth & Value Stocks

As of 08/17/2022

Performance Trends

- *The length and cumulative size of the current cycle of growth dominance remains near an extreme, notwithstanding the recent reversal – [slide 3](#)*
- *Since late 2020, U.S. growth has underperformed value, similar to historical risk off periods (rolling 5-year cycle peaked in November 2021) – [slide 4 & 5](#)*
- *The recent growth cycle has both similarities and differences vs. the Tech Bubble – [slide 6](#)*
- *The coronavirus crisis dramatically accelerated growth's dominance, but this trend has rolled over on slower economic growth and higher interest rate concerns– [slide 8](#)*

Valuation Trends

- *Growth has benefited from substantial multiple expansion this cycle, whereas value has not – [slide 10](#)*
- *This multiple expansion has driven growth to become almost 2x more expensive than value relative to earnings – [slide 11](#)*
- *Growth equity prices still not supported by earnings – [slide 12](#)*
- *The market is now implying slightly negative perpetual earnings growth for U.S. value stocks. Implied earnings growth for international value stocks also remains deeply negative – [slide 13](#)*

Sector Trends

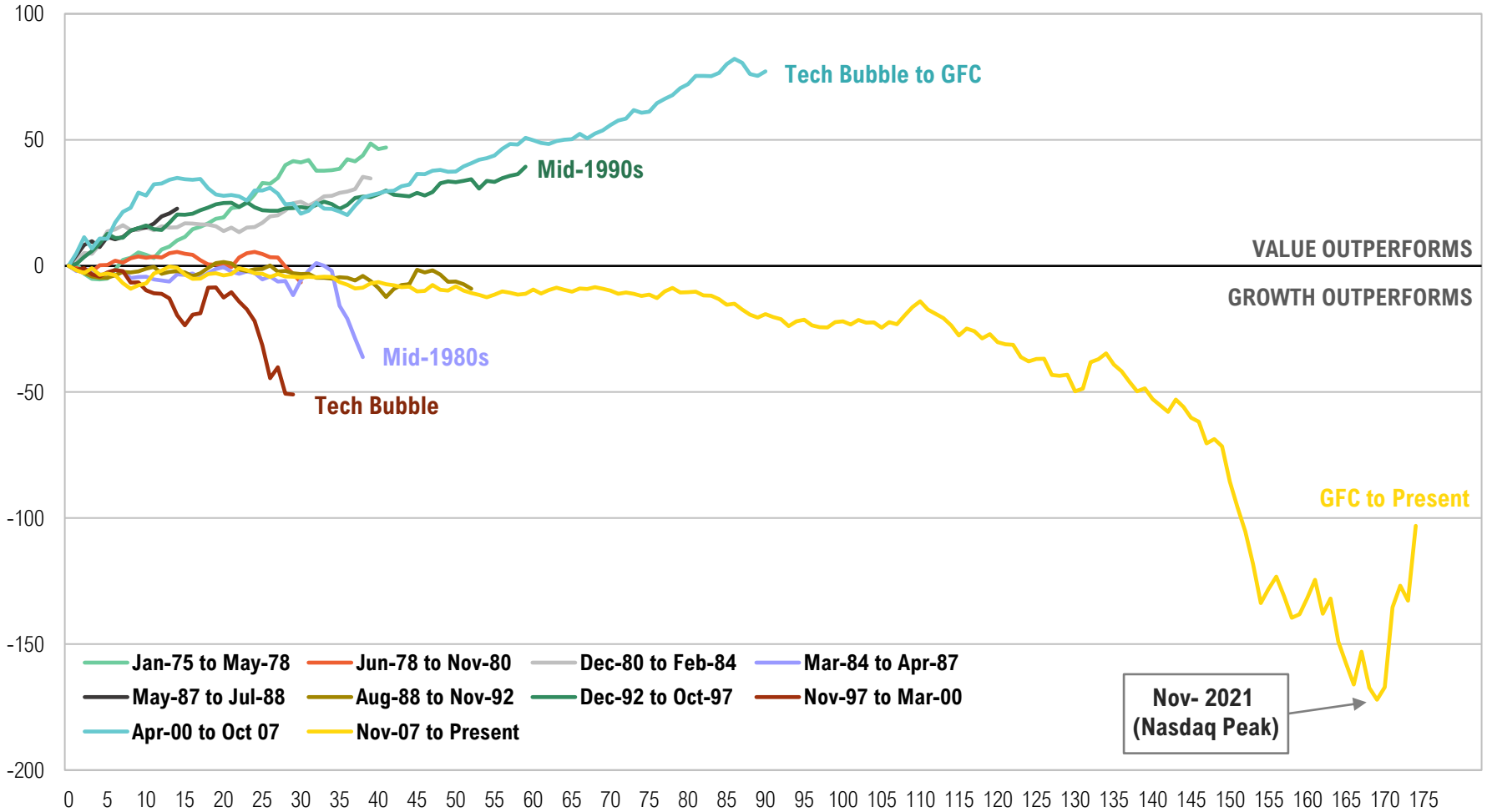
- *Overweighting growth relative to value is effectively a bet on the technology and consumer discretionary sector, at the expense of financials and utilities – [slide 14](#)*
- *Technology and consumer discretionary squeezed out traditional value sectors like energy and financials – [slide 15](#)*
- *Traditional value sectors like financials, utilities and energy currently represent just 19% of the market, near all-time lows – [slide 16](#)*

Long-Term Returns

- *After trailing for over 19 years on a since-inception basis (inception of Russell 1000 indices), large cap growth pulled ahead of small cap value as the top-performing long-term style box (as it did from late 1998 through 2000) but has recently given back some ground – [slide 17](#)*
- *Value generally outperforms growth during risk off periods – [slide 18](#)*
- *Value dramatically outperformed growth post Tech Bubble, but has lagged since the GFC – [slide 19](#)*

Current cycle of growth dominance has experienced substantial mean reversion from a cycle peak in November 2021

MSCI WORLD VALUE VS. MSCI WORLD CUMULATIVE GROWTH (%) DURING SELECT PERIODS

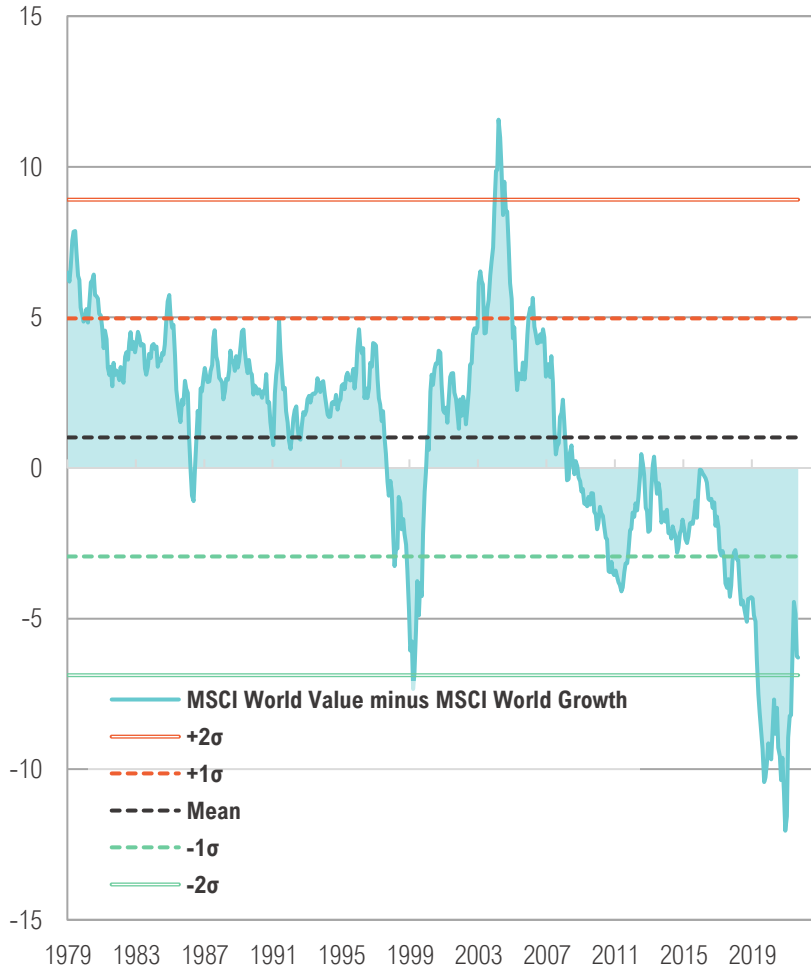


Source: Bloomberg

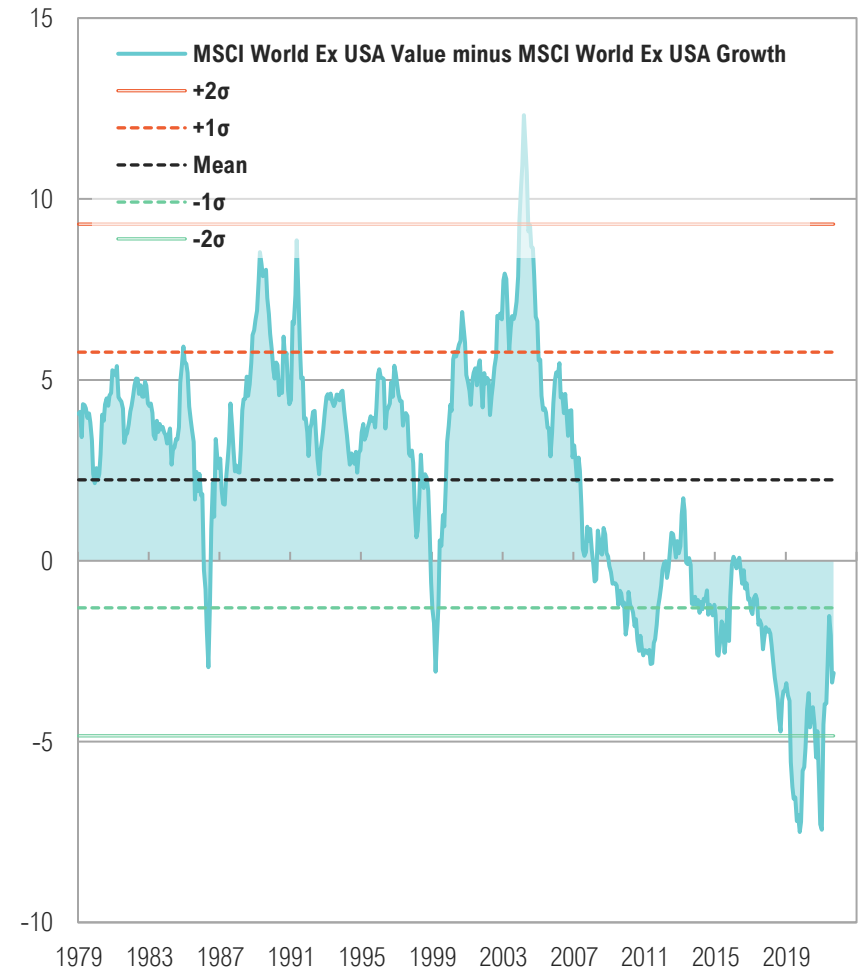
Months in Cycle

➤ Mean reversion of growth vs. value begs the question: was November 2021 the end of the cycle?

ROLLING 5-YEAR SPREAD, % ANNUALIZED



ROLLING 5-YEAR SPREAD, % ANNUALIZED



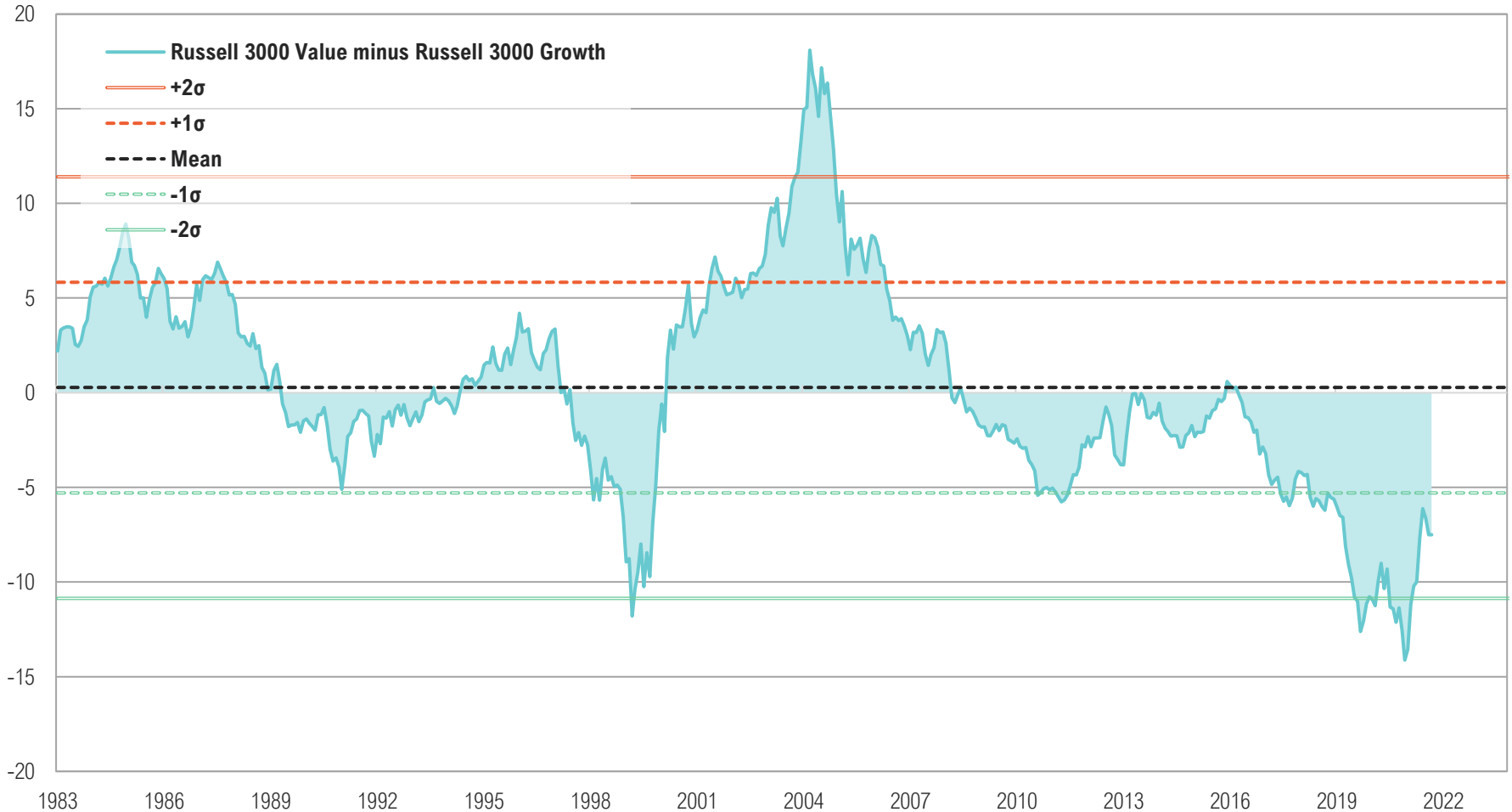
Source: Bloomberg

Growth vs. Value

SEE IMPORTANT DISCLOSURES AT THE END OF THIS PRESENTATION

Value has outperformed growth since November 2021, but remains far from the mean over the rolling five-year period

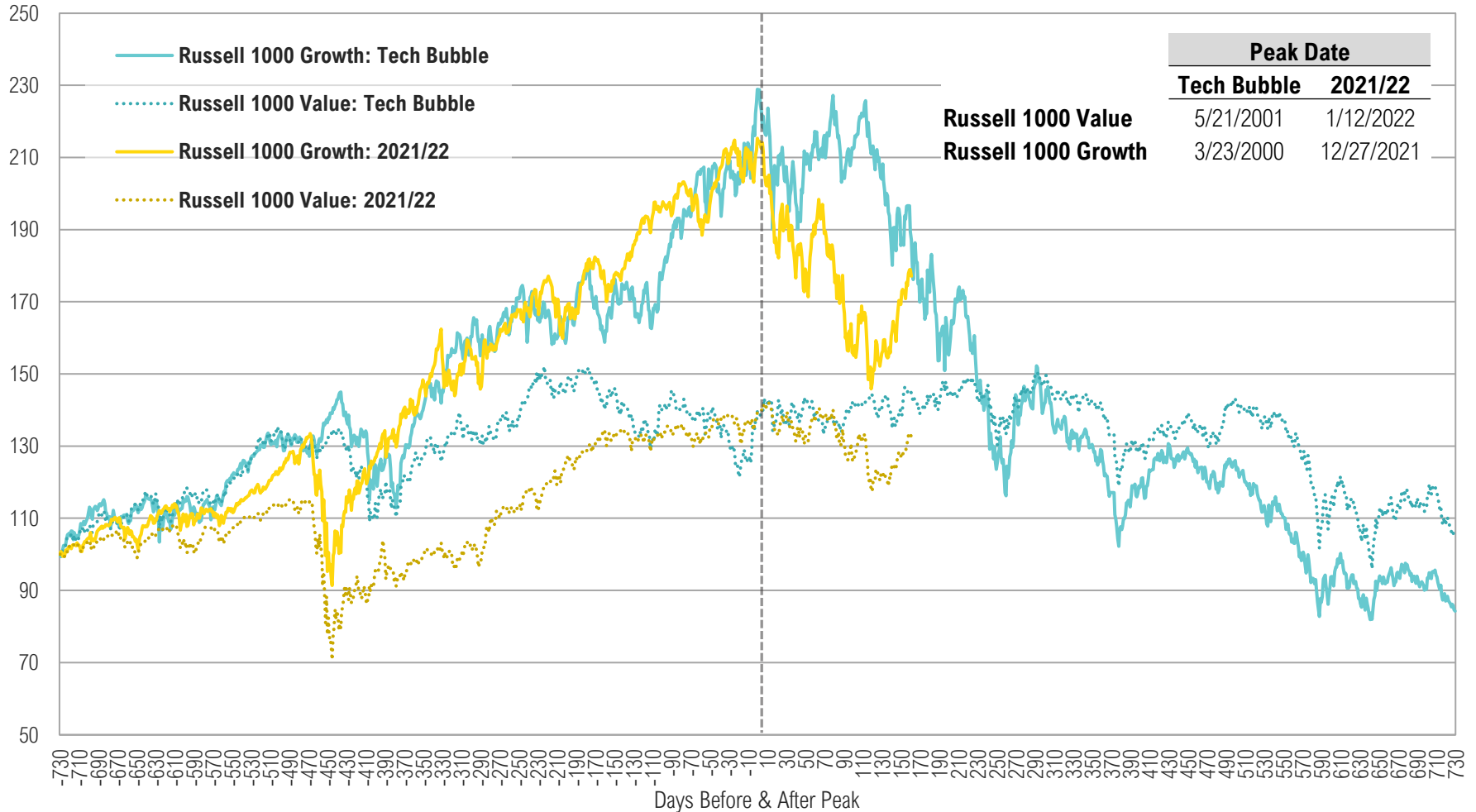
ROLLING 5-YEAR SPREAD, % ANNUALIZED



Source: Bloomberg

U.S. Large Cap Growth vs. Value: Tech Bubble vs. 2021/22

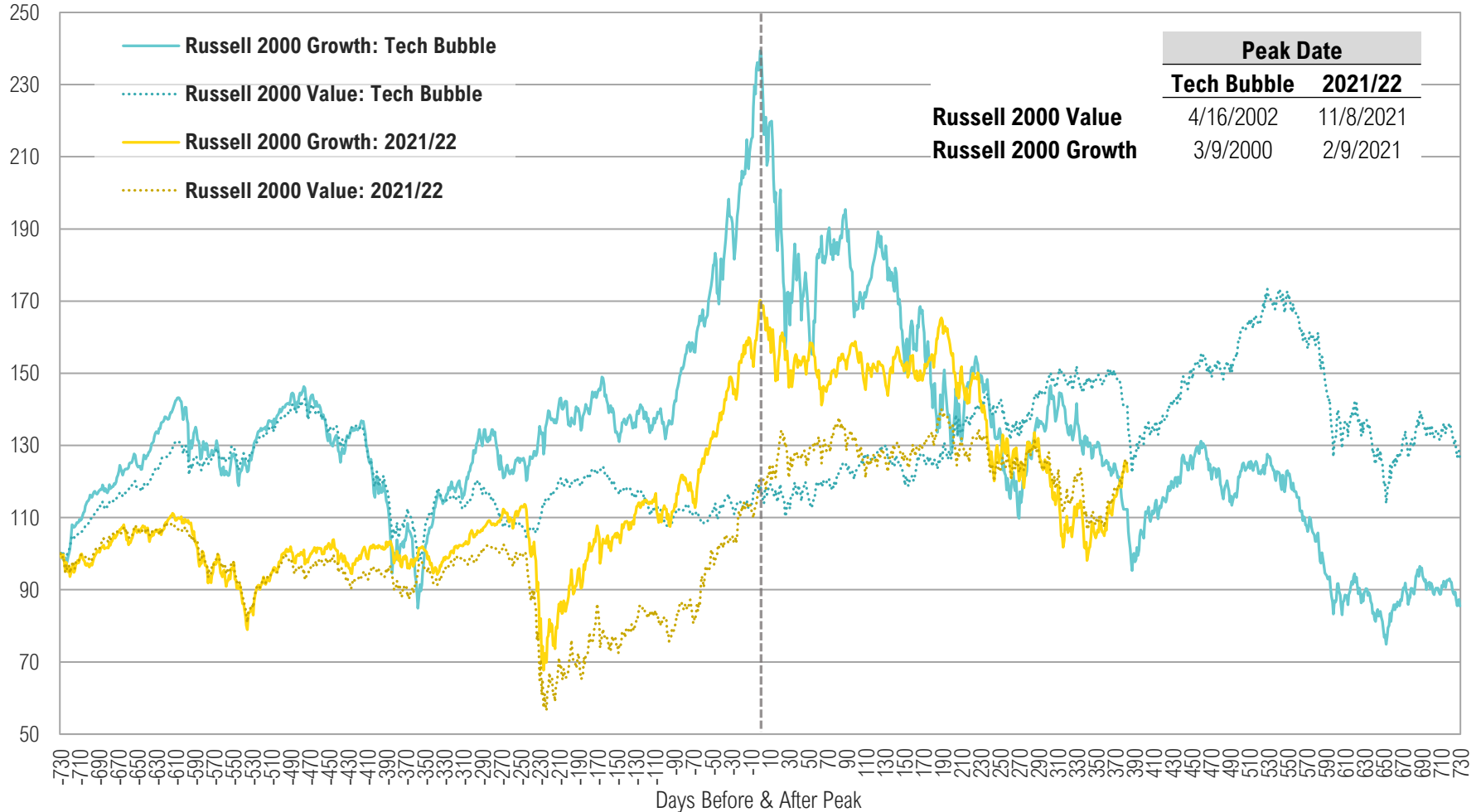
GROWTH OF 100 (2 YEARS BEFORE PEAK = 100): RUSSELL 1000 VALUE & GROWTH PERFORMANCE LEADING UP TO & POST CYCLE PEAK



Source: Bloomberg

U.S. Small Cap Growth vs. Value: Tech Bubble vs. 2021/22

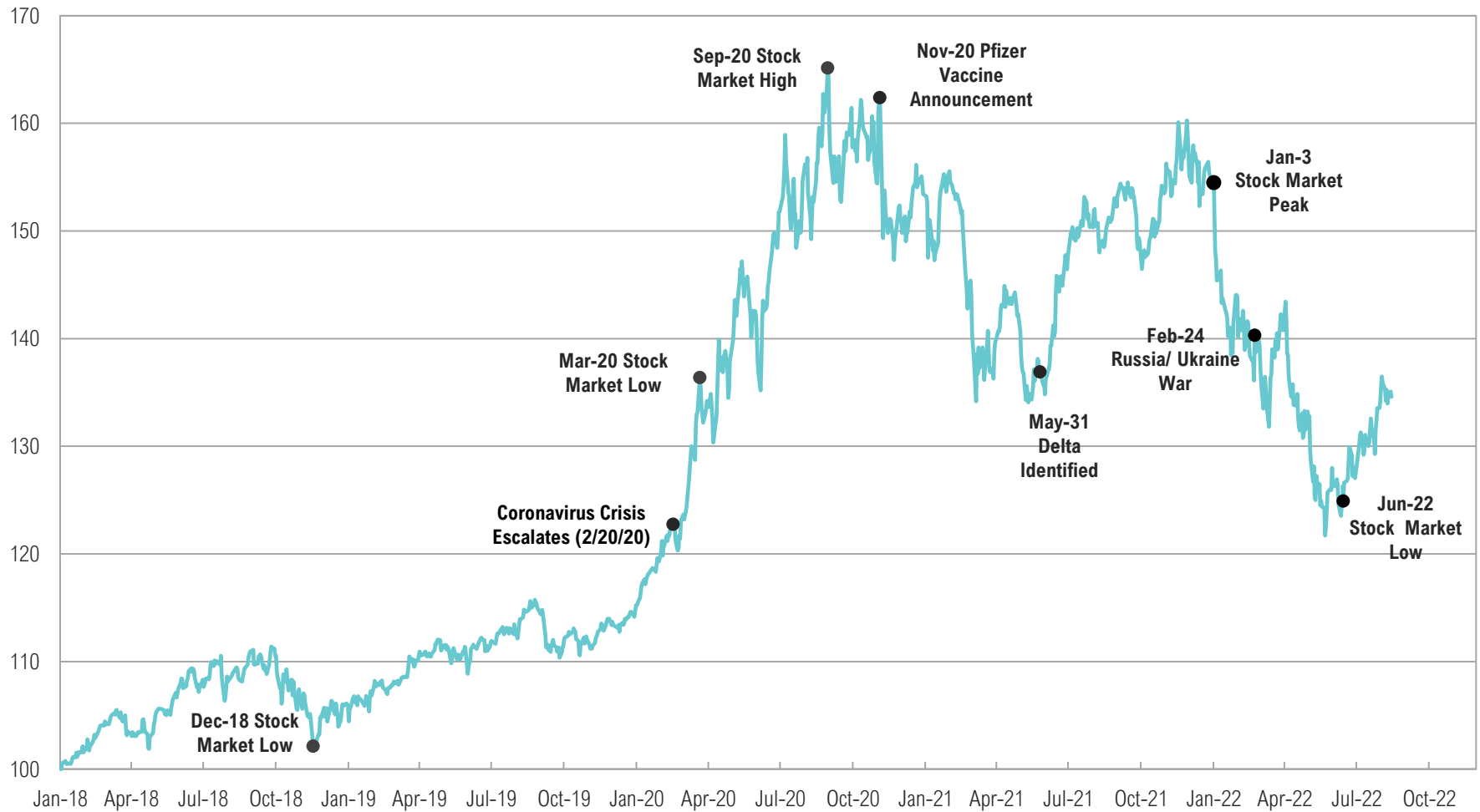
GROWTH OF 100 (2 YEARS BEFORE PEAK = 100): RUSSELL 2000 VALUE & GROWTH PERFORMANCE LEADING UP TO & POST CYCLE PEAK



Source: Bloomberg

➤ Growth continues to outperform during risk-on periods

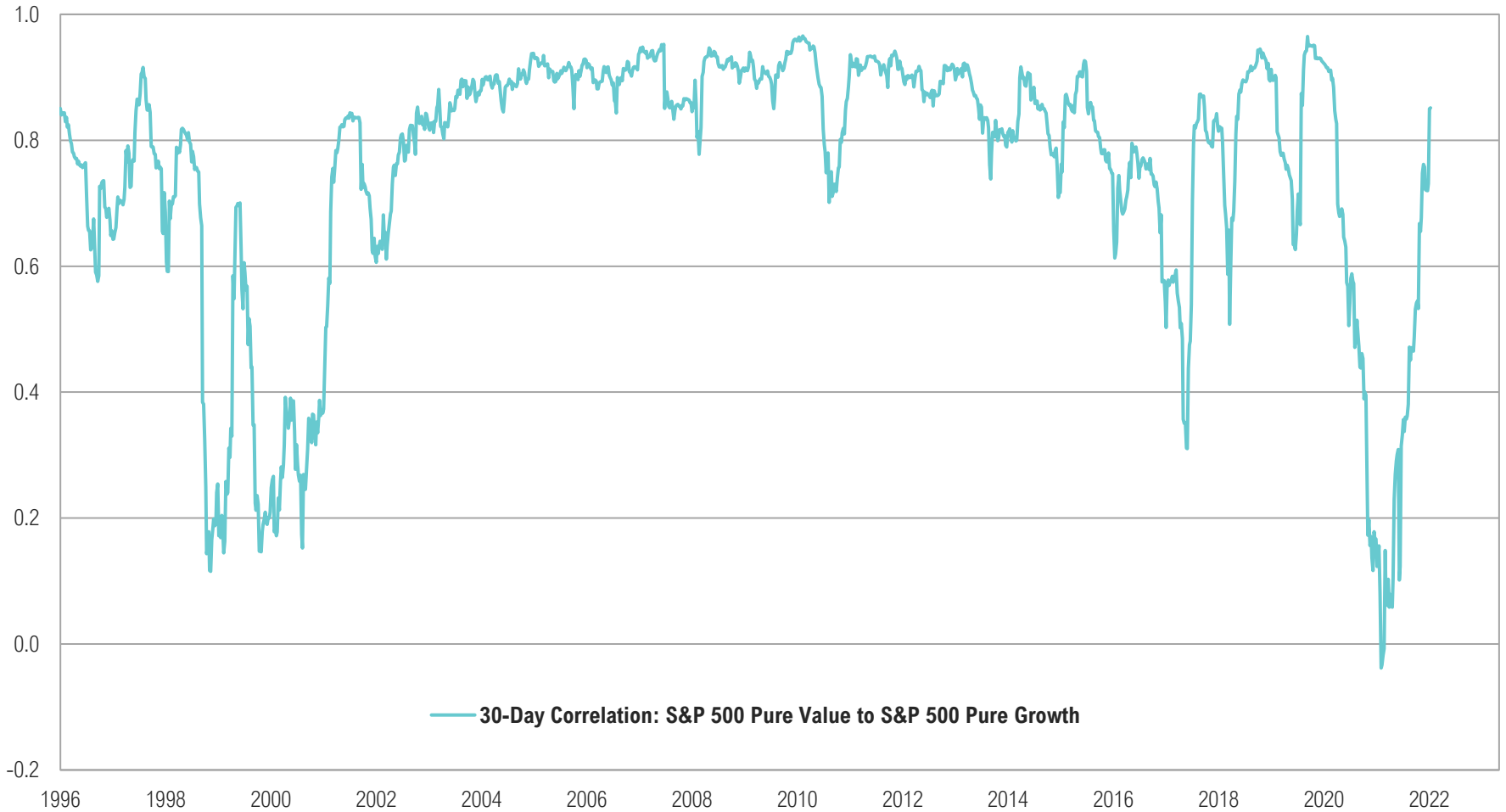
RUSSELL 3000 GROWTH / RUSSELL 3000 VALUE, GROWTH OF 100



Source: Bloomberg

➤ **Correlation between value and growth is back near (slightly above) long-term average suggesting the worst of growth's overvaluation has been wrung out**

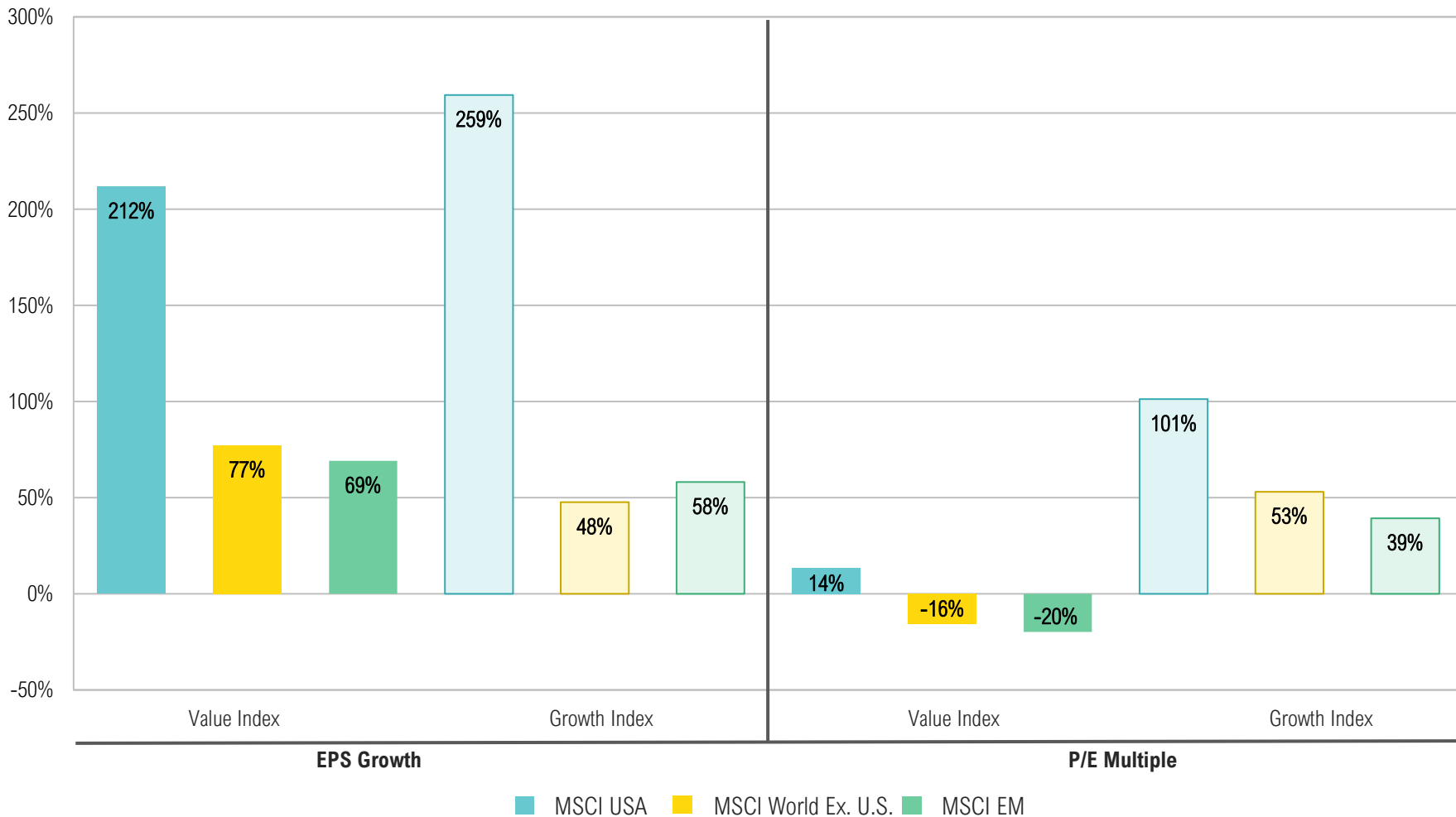
30-DAY CORRELATION: S&P 500 PURE VALUE TO S&P 500 PURE GROWTH



Source: Bloomberg

➤ Growth multiples have risen 7.2x more than value since the GFC while EPS growth rates have only been 1.2x better

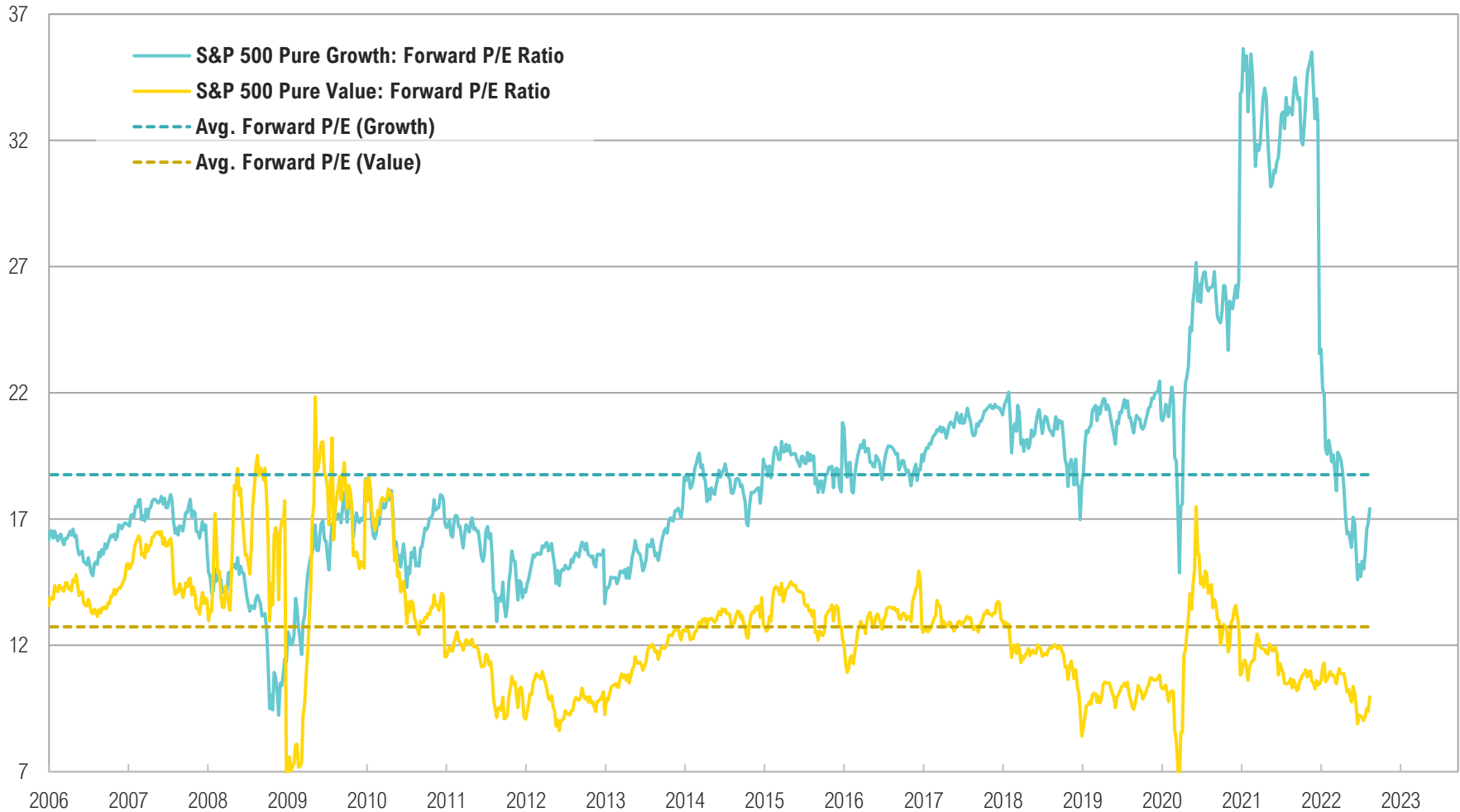
P/E MULTIPLE GROWTH VS. EPS GROWTH: MSCI USA VS. MSCI WORLD EX USA VS. MSCI EM, 3/31/2009 - PRESENT



Source: Bloomberg, SpringTide calculations

Forward-looking valuations have improved dramatically, but earnings estimates will now come into question given potential margin pressure; value still looks relatively cheap

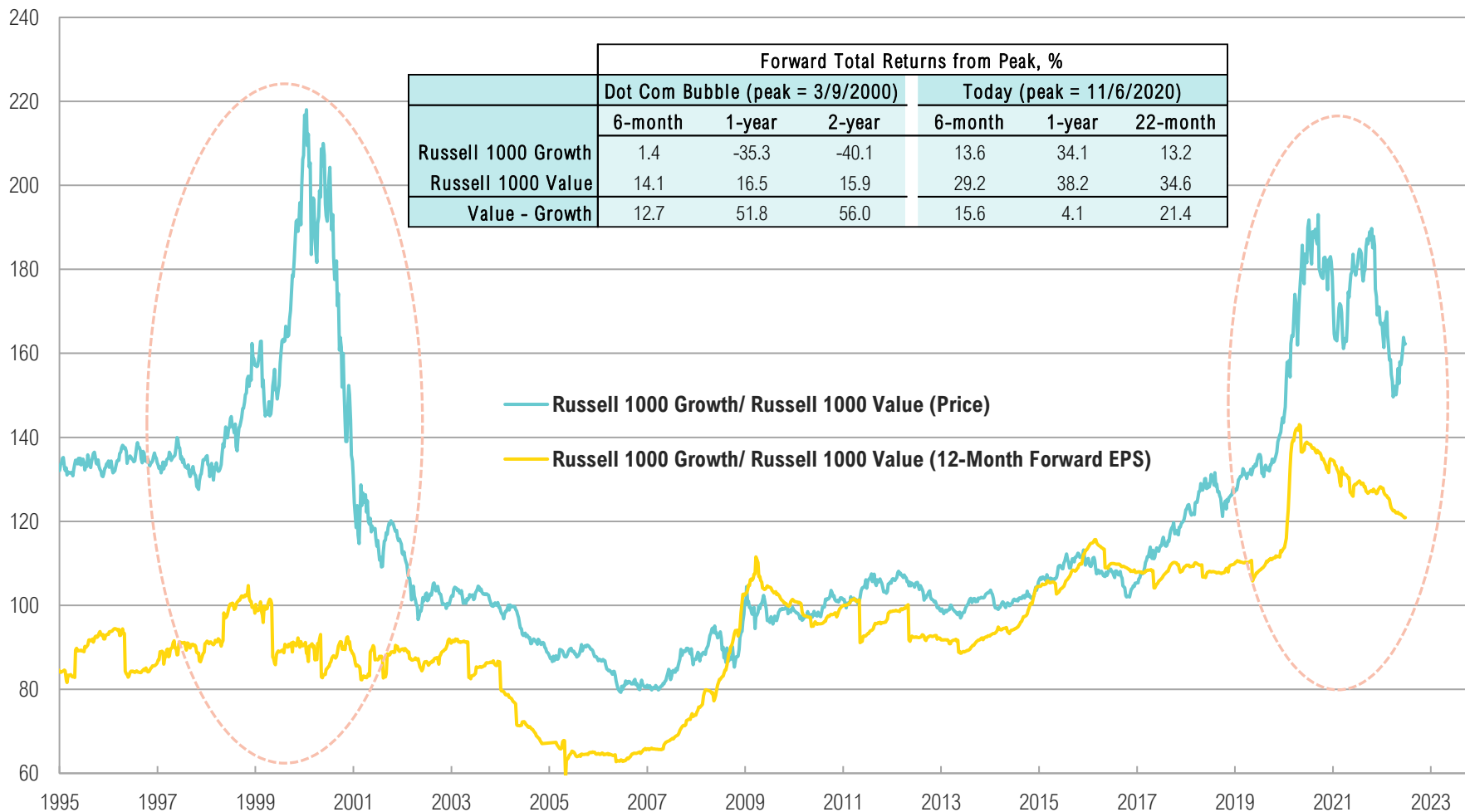
S&P 500 PURE GROWTH INDEX VS. S&P PURE VALUE INDEX FORWARD P/E RATIOS



Source: Bloomberg

➤ Growth equity prices still not supported by earnings

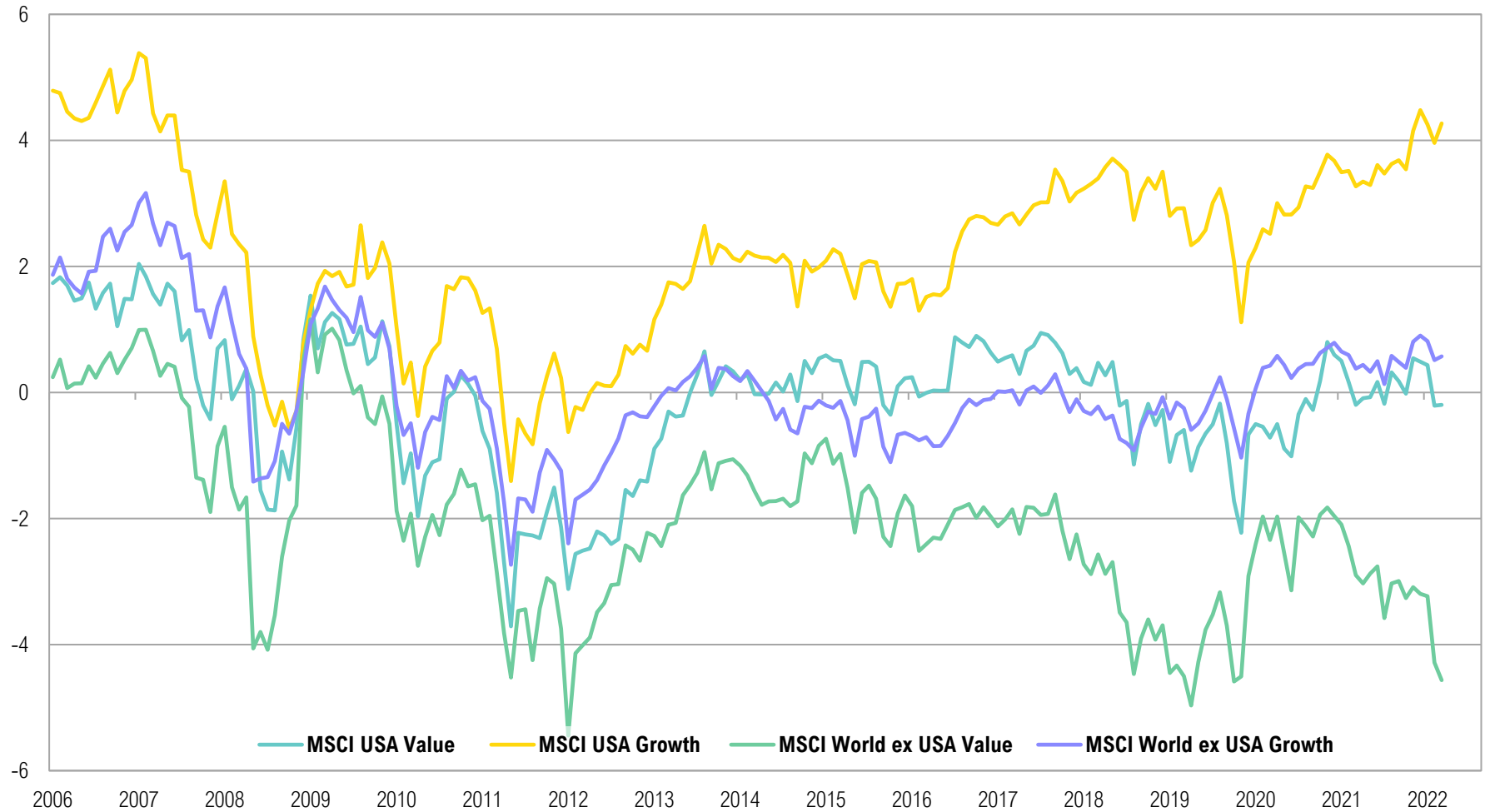
GROWTH/ VALUE RATIO (2010 = 100)



Source: Bloomberg. Returns are not annualized and as of 8/18/2022. Data source is weekly total returns (including dividends).

Market is implying negative perpetual EPS growth for both U.S. and ex-U.S. value stocks

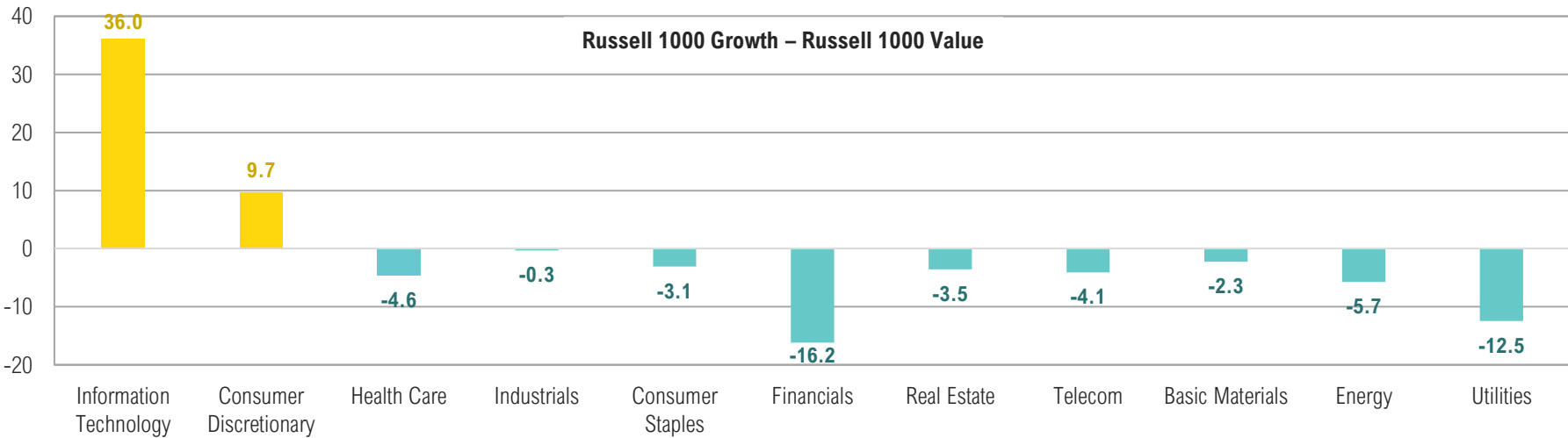
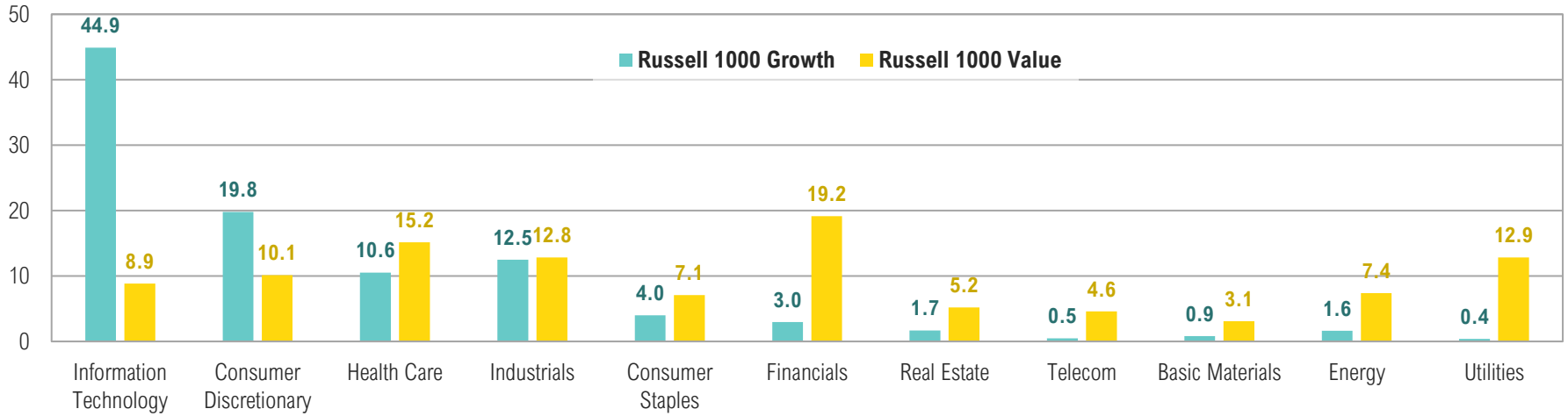
MSCI USA VS. MSCI WORLD EX USA MARKET IMPLIED PERPETUAL GROWTH RATES, %



Source: Bloomberg, SpringTide calculations
Data as of 7/29/2022

Growth has significantly more concentration than value in technology and consumer discretionary sectors, far less financials exposure

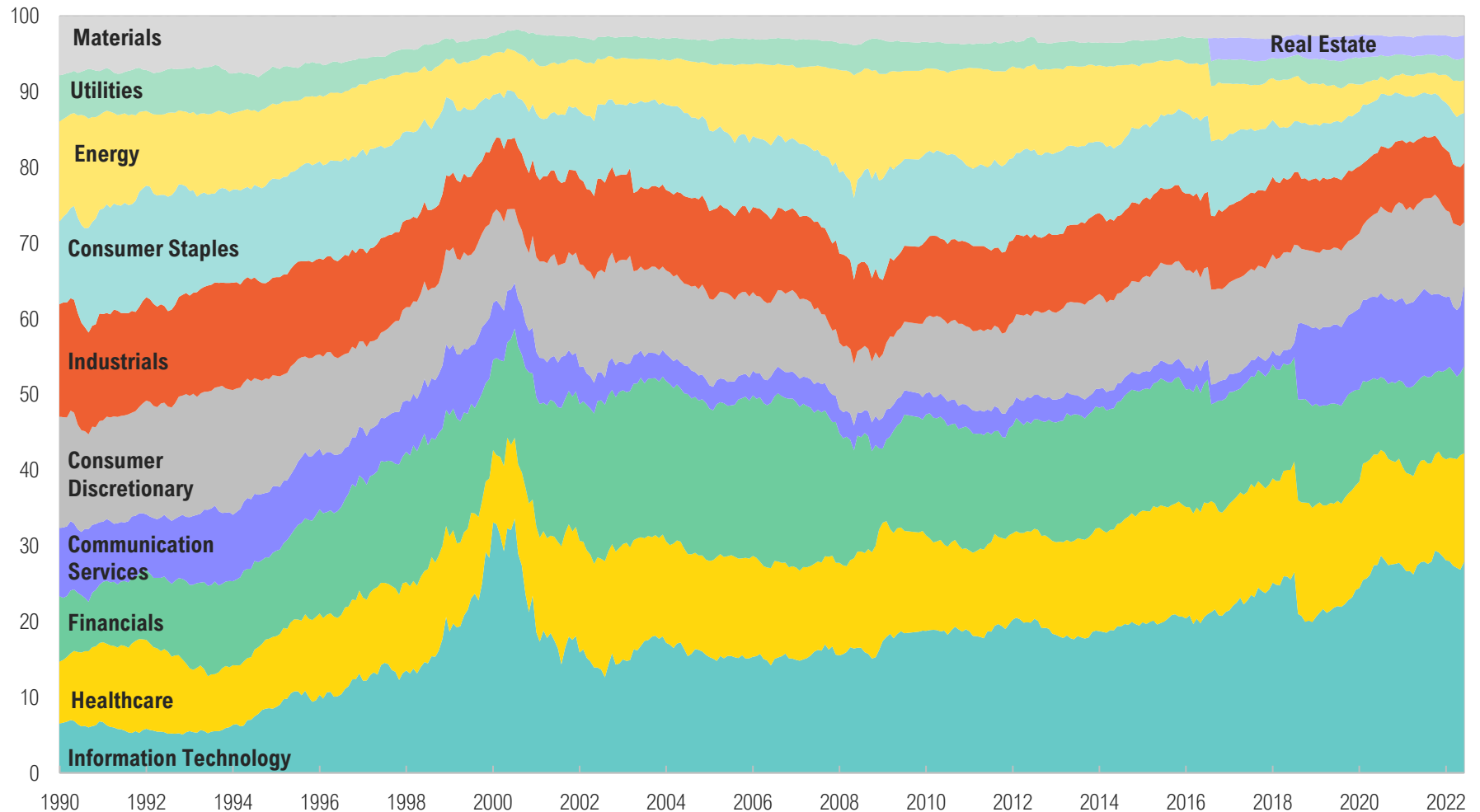
SECTOR INDEX WEIGHTS, %



Source: Bloomberg

➤ In the S&P 500, tech and consumer discretionary squeezed out traditional value sectors like energy & financials

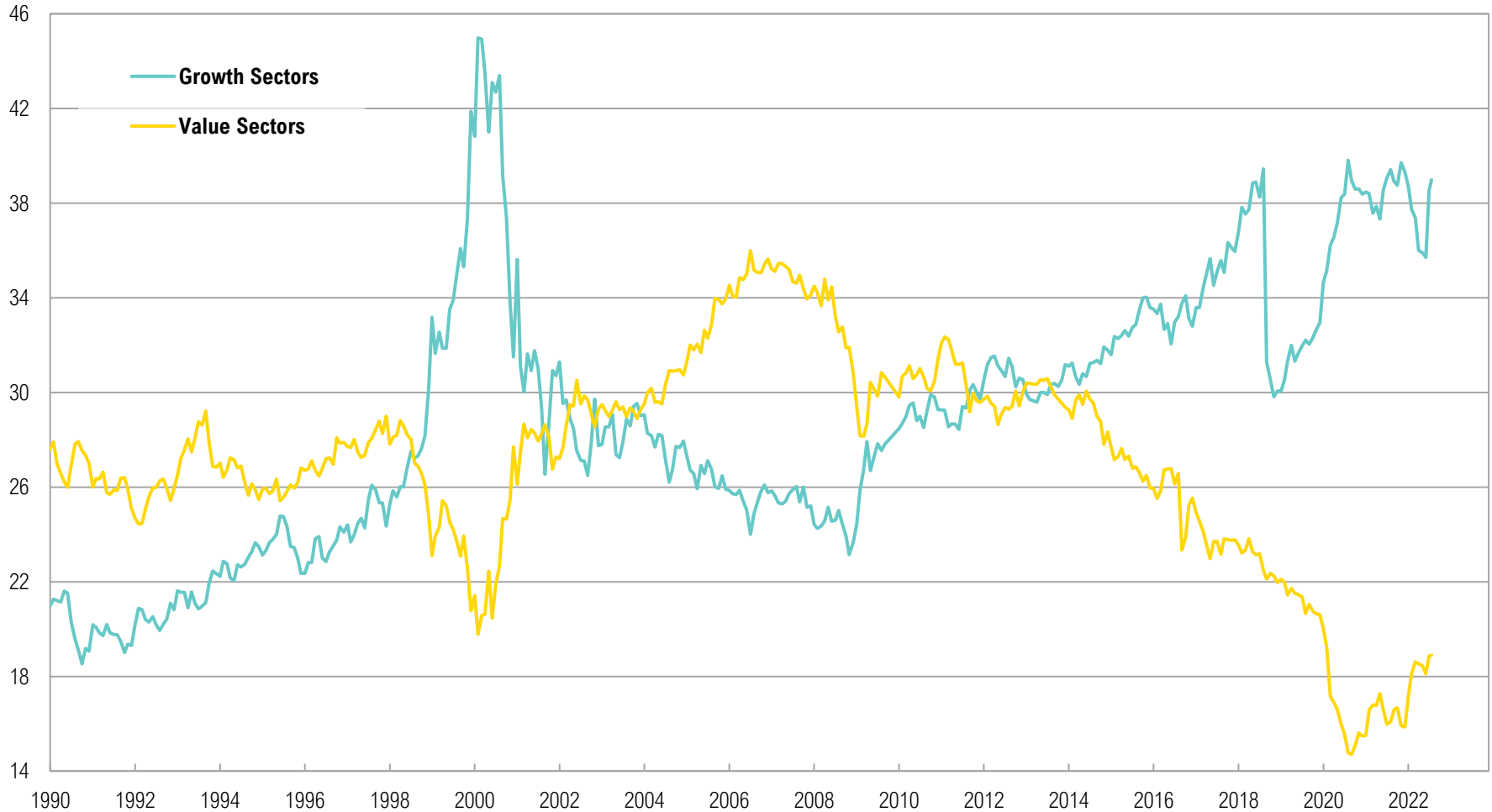
S&P 500 SECTOR INDEX WEIGHTS, %



Source: Bloomberg

➤ In the S&P 500, tech & consumer discretionary squeezed out value sectors like energy & financials, potential for further mean reversion

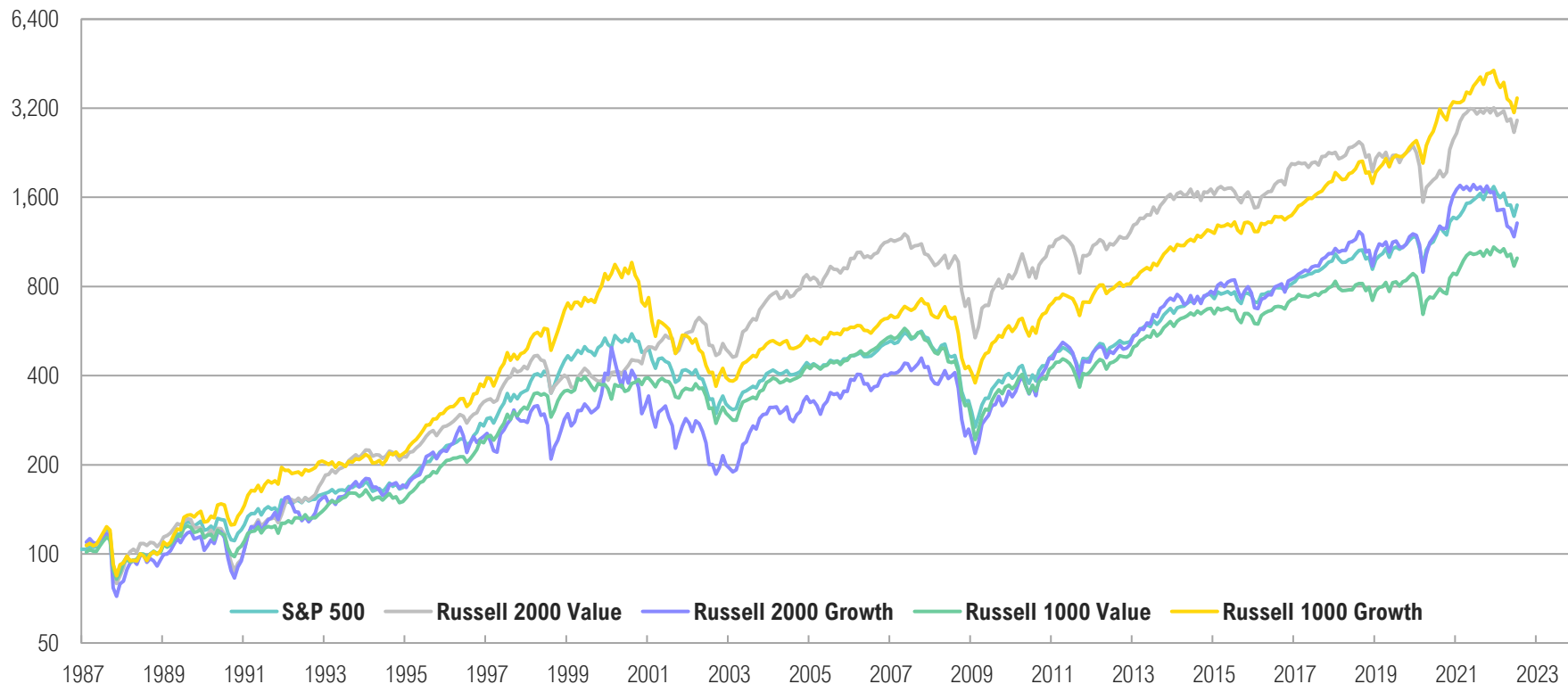
S&P 500 INDEX SECTOR WEIGHTS, %



Source: Bloomberg. Value sectors: energy, utilities, and financials; Growth sectors: information technology and consumer discretionary.

Large cap growth remains the top-performing long-term style box; small cap growth however has not bested small cap value

INDEX TOTAL RETURN GROWTH OF 100



| Asset Class | Benchmark | MTD | QTD | YTD | 1-Yr | 3-Yr | 5-Yr | 10-Yr | 2021 | 2020 | 2019 | 2018 | 2017 |
|-----------------------|------------------------|-----|------|-------|-------|------|------|-------|------|------|------|-------|------|
| U.S. Small Cap Value | Russell 2000 Value TR | 5.0 | 15.1 | -4.8 | 0.8 | 13.5 | 8.9 | 10.3 | 28.3 | 4.6 | 22.4 | -12.9 | 7.8 |
| U.S. Small Cap Growth | Russell 2000 Growth TR | 6.0 | 17.9 | -16.8 | -15.7 | 8.3 | 9.0 | 10.8 | 2.8 | 34.6 | 28.5 | -9.3 | 22.2 |
| US Large Cap Value | Russell 1000 Value TR | 3.4 | 10.2 | -4.0 | 0.3 | 11.6 | 9.5 | 11.1 | 25.2 | 2.8 | 26.5 | -8.3 | 13.7 |
| US Large Cap Growth | Russell 1000 Growth TR | 4.2 | 16.7 | -16.0 | -8.6 | 18.5 | 17.5 | 16.1 | 27.6 | 38.5 | 36.4 | -1.5 | 30.2 |
| U.S. Large Cap Stocks | S&P 500 TR | 3.6 | 13.1 | -9.4 | -2.5 | 15.8 | 14.0 | 13.9 | 28.7 | 18.4 | 31.5 | -4.4 | 21.8 |

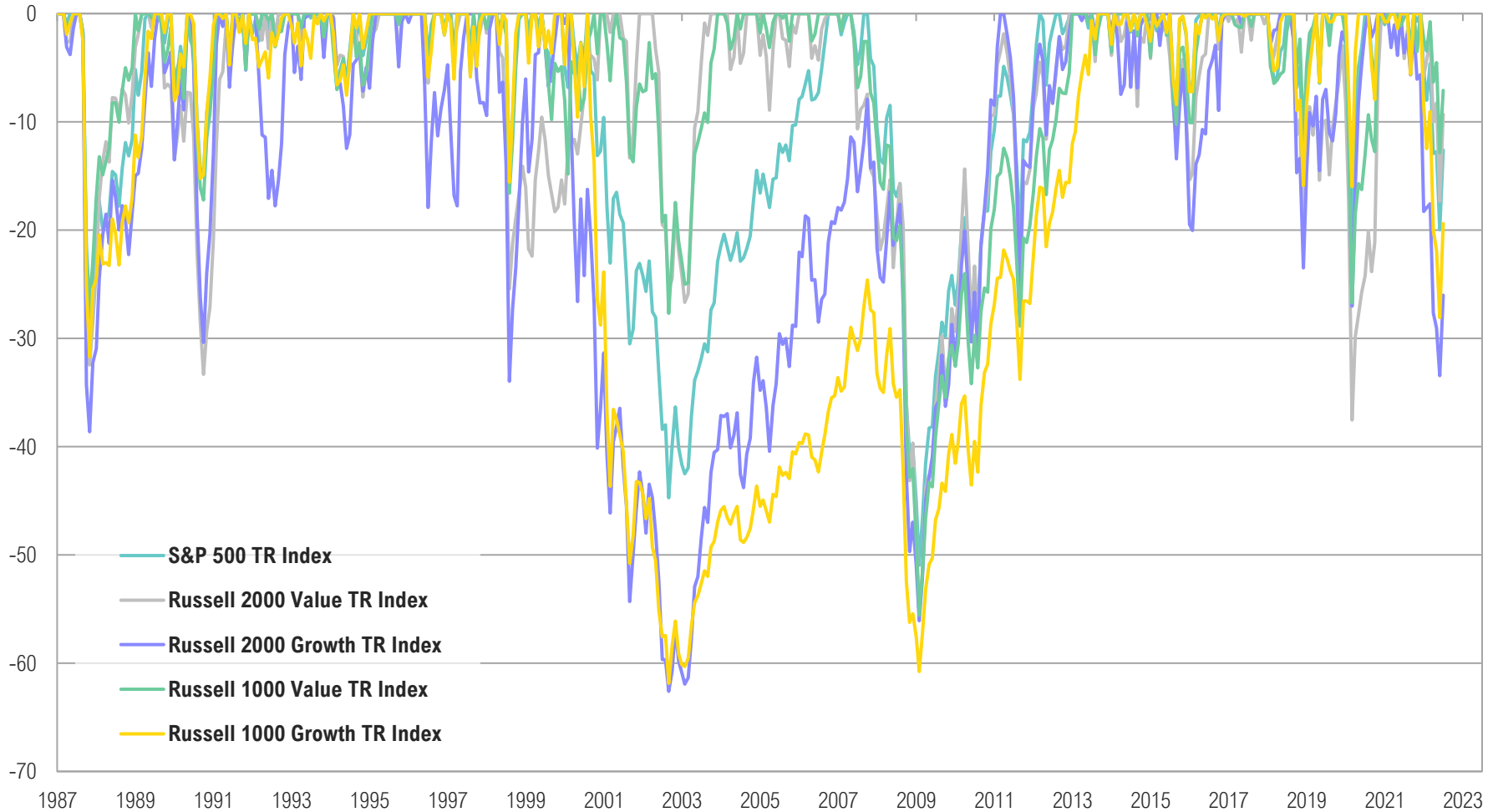
Source: Bloomberg

Growth vs. Value

SEE IMPORTANT DISCLOSURES AT THE END OF THIS PRESENTATION

Value generally outperforms during risk-off periods, similar pattern playing out in 2022

% DRAWDOWN FROM ALL-TIME HIGH



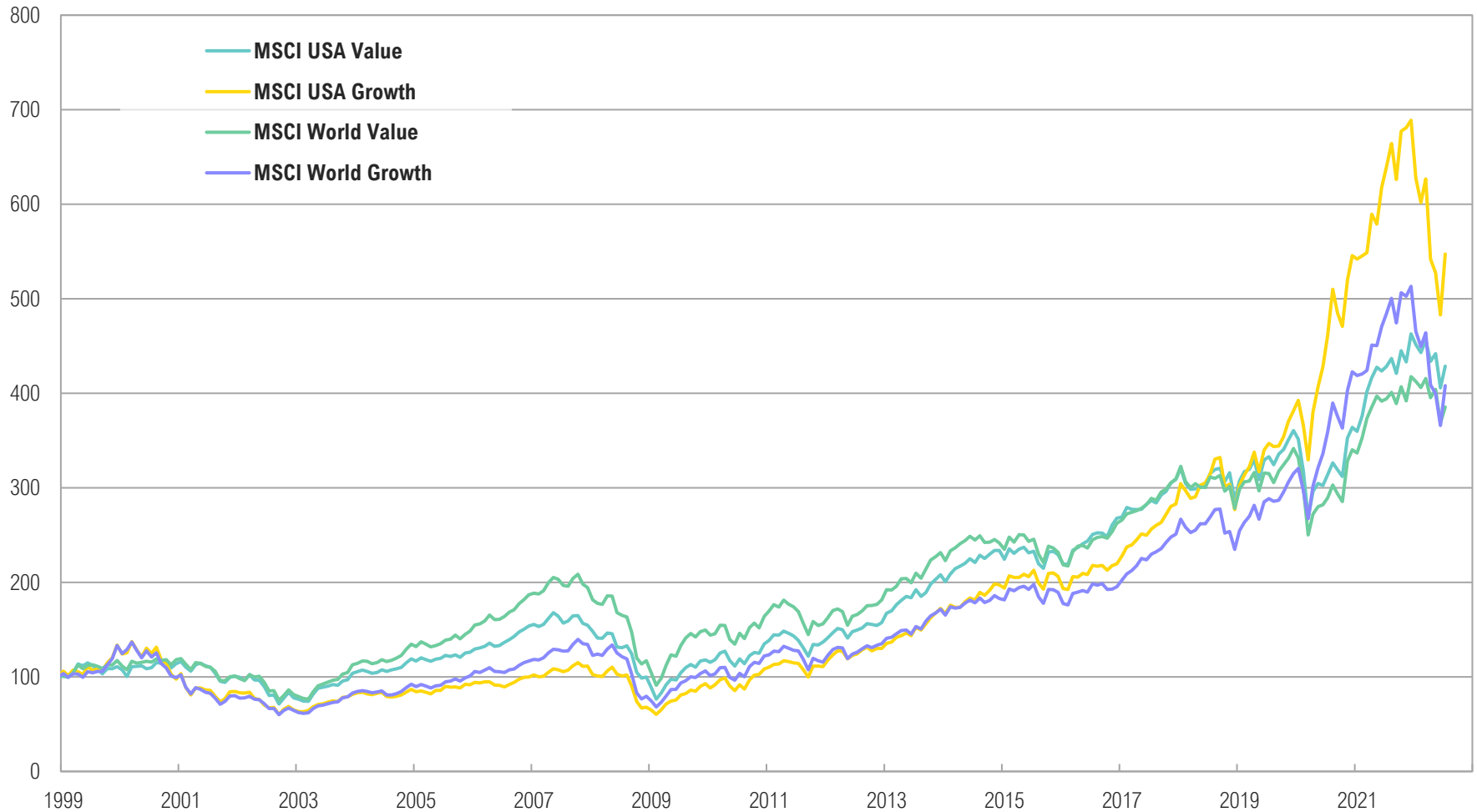
Source: Bloomberg

Growth vs. Value

SEE IMPORTANT DISCLOSURES AT THE END OF THIS PRESENTATION

Value dramatically outperformed growth post tech bubble, but has lagged since the Global Financial Crisis

TOTAL RETURN INDEX GROWTH OF 100



Source: Bloomberg

Trailing returns and volatility

| Index | Inception Date | Annualized Total Return | | | | | | | Standard Deviation | | | | | | |
|-------------------------------|----------------|-------------------------|------|-------|-------|-------|-------|-------|--------------------|------|-------|-------|-------|-------|-------|
| | | 3-Yr | 5-Yr | 10-Yr | 15-Yr | 20-Yr | 30-Yr | 40-Yr | 3-Yr | 5-Yr | 10-Yr | 15-Yr | 20-Yr | 30-Yr | 40-Yr |
| S&P 500 | 1/30/1970 | 13.4 | 12.8 | 13.8 | 9.4 | 10.0 | 10.0 | 12.2 | 19.2 | 17.3 | 13.9 | 15.9 | 14.8 | 14.7 | 15.2 |
| S&P 500 Value | 1/3/1994 | 9.7 | 9.1 | 11.5 | 6.9 | 8.8 | - | - | 18.8 | 17.2 | 14.0 | 16.6 | 15.6 | - | - |
| S&P 500 Growth | 1/3/1994 | 15.8 | 15.6 | 15.5 | 11.5 | 10.9 | - | - | 21.9 | 19.2 | 15.2 | 16.3 | 15.1 | - | - |
| Russell 1000 | 12/31/1978 | 12.9 | 12.6 | 13.7 | 9.4 | 10.1 | 10.1 | 12.2 | 19.8 | 17.7 | 14.2 | 16.2 | 15.1 | 14.9 | 15.3 |
| Russell 1000 Value | 1/1/1987 | 8.9 | 8.3 | 11.1 | 6.9 | 8.7 | 9.6 | 11.9 | 19.8 | 17.6 | 14.2 | 16.5 | 15.3 | 14.7 | 14.9 |
| Russell 1000 Growth | 1/1/1987 | 16.1 | 16.3 | 16.0 | 11.6 | 11.3 | 10.1 | 12.1 | 22.0 | 19.6 | 15.5 | 16.9 | 15.7 | 16.8 | 17.2 |
| Russell Mid Cap Growth | 2/1/1995 | 7.5 | 11.1 | 12.8 | 9.2 | 11.2 | 10.1 | - | 23.5 | 21.0 | 16.6 | 19.0 | 17.7 | 19.9 | - |
| Russell Mid Cap | 12/31/1978 | 9.5 | 9.7 | 12.3 | 8.7 | 10.9 | 11.0 | 12.9 | 22.3 | 19.7 | 15.7 | 18.4 | 17.0 | 16.5 | 16.9 |
| Russell Mid Cap Value | 12/31/1985 | 9.4 | 7.8 | 11.5 | 7.9 | 10.4 | 11.0 | - | 23.2 | 20.2 | 16.0 | 18.7 | 17.2 | 16.0 | - |
| Russell 2000 | 12/31/1978 | 7.5 | 7.1 | 10.6 | 7.5 | 9.6 | 9.3 | 10.5 | 24.9 | 22.5 | 18.6 | 20.8 | 19.5 | 19.3 | 19.5 |
| Russell 2000 Value | 12/31/1978 | 9.4 | 6.7 | 10.2 | 6.9 | 9.1 | 10.3 | 11.8 | 26.0 | 23.0 | 18.9 | 21.0 | 19.6 | 17.9 | 17.9 |
| Russell 2000 Growth | 12/31/1978 | 4.7 | 6.9 | 10.7 | 7.9 | 9.8 | 7.9 | 8.8 | 25.5 | 23.1 | 19.3 | 21.3 | 20.2 | 22.0 | 22.2 |
| Russell 3000 | 12/31/1978 | 12.6 | 12.2 | 13.5 | 9.3 | 10.1 | 10.0 | 12.1 | 20.0 | 17.9 | 14.4 | 16.4 | 15.3 | 15.1 | 15.5 |
| Russell 3000 Value | 12/29/1978 | 8.9 | 8.2 | 11.0 | 6.9 | 8.8 | 9.7 | 11.9 | 20.1 | 17.8 | 14.4 | 16.7 | 15.5 | 14.8 | 15.0 |
| Russell 3000 Growth | 12/29/1978 | 15.3 | 15.7 | 15.6 | 11.4 | 11.2 | 9.9 | 11.8 | 22.0 | 19.7 | 15.6 | 17.1 | 15.9 | 17.0 | 17.3 |
| Russell Micro Cap Value | 6/30/2000 | 10.9 | 8.0 | 11.3 | 6.6 | 9.4 | - | - | 27.5 | 24.1 | 19.7 | 22.0 | 20.4 | - | - |
| Russell Micro Cap | 6/30/2000 | 8.9 | 6.7 | 10.3 | 6.3 | 8.9 | - | - | 27.8 | 24.4 | 20.2 | 22.2 | 20.8 | - | - |
| Russell Micro Cap Growth | 6/30/2000 | 4.7 | 4.0 | 8.3 | 5.4 | 7.9 | - | - | 30.3 | 26.5 | 22.3 | 23.6 | 22.3 | - | - |
| MSCI ACWI Value | 12/31/1996 | 6.2 | 5.3 | 8.0 | 4.2 | 7.8 | - | - | 19.0 | 16.6 | 13.7 | 17.0 | 16.0 | - | - |
| MSCI ACWI | 5/31/1990 | 9.0 | 8.4 | 9.9 | 5.9 | 8.6 | 8.1 | - | 18.4 | 16.4 | 13.5 | 16.7 | 15.6 | 15.0 | - |
| MSCI ACWI Growth | 12/31/1996 | 11.0 | 10.9 | 11.5 | 7.4 | 9.2 | - | - | 20.0 | 17.8 | 14.5 | 17.2 | 15.9 | - | - |
| MSCI USA Barra Value | 5/30/2003 | 11.8 | 11.5 | 13.4 | 9.1 | - | - | - | 20.2 | 17.8 | 14.2 | 16.3 | - | - | - |
| MSCI USA Barra Momentum | 5/30/2003 | 12.6 | 12.9 | 14.4 | 9.5 | - | - | - | 21.4 | 18.8 | 15.1 | 16.3 | - | - | - |
| MSCI USA Barra Low Volatility | 5/30/2003 | 11.1 | 13.0 | 14.3 | 10.9 | - | - | - | 16.0 | 14.4 | 11.7 | 12.7 | - | - | - |
| MSCI USA Barra Low Leverage | 5/30/2003 | 13.7 | 13.2 | 13.9 | 10.4 | - | - | - | 18.8 | 17.1 | 13.8 | 15.7 | - | - | - |
| MSCI USA Barra Earnings Yield | 5/30/2003 | 11.2 | 10.3 | 12.4 | 8.9 | - | - | - | 20.1 | 18.0 | 14.4 | 16.2 | - | - | - |
| MSCI World Value | 12/31/1974 | 6.9 | 5.9 | 8.8 | 4.6 | 7.9 | 8.0 | 10.8 | 19.3 | 16.9 | 13.8 | 16.9 | 15.9 | 15.1 | 15.1 |
| MSCI World | 3/31/1986 | 10.1 | 9.4 | 10.8 | 6.5 | 8.8 | 8.3 | 10.7 | 18.9 | 16.8 | 13.7 | 16.5 | 15.4 | 14.9 | 15.1 |
| MSCI World Growth | 12/31/1974 | 12.3 | 12.2 | 12.5 | 8.1 | 9.5 | 8.3 | 10.4 | 20.9 | 18.4 | 14.8 | 17.1 | 15.7 | 15.6 | 15.9 |
| MSCI World Large Value | 5/31/1994 | 7.1 | 6.1 | 8.7 | 4.5 | 7.4 | - | - | 18.7 | 16.5 | 13.6 | 16.7 | 15.5 | - | - |
| MSCI World Large | 5/31/1994 | 10.6 | 9.9 | 11.0 | 6.6 | 8.6 | - | - | 18.6 | 16.5 | 13.6 | 16.3 | 15.1 | - | - |
| MSCI World Large Growth | 5/31/1994 | 13.4 | 13.3 | 13.1 | 8.7 | 9.8 | - | - | 20.9 | 18.4 | 14.8 | 16.9 | 15.6 | - | - |
| MSCI World Mid Value | 5/31/1994 | 5.6 | 4.8 | 9.4 | 5.4 | 9.2 | - | - | 22.8 | 19.4 | 15.6 | 18.4 | 16.9 | - | - |
| MSCI World Mid | 5/31/1994 | 7.5 | 6.8 | 9.9 | 5.8 | 9.4 | - | - | 21.0 | 18.5 | 14.9 | 18.2 | 16.8 | - | - |
| MSCI World Mid Growth | 5/31/1994 | 6.8 | 7.1 | 9.6 | 5.6 | 9.1 | - | - | 21.4 | 18.9 | 15.3 | 18.5 | 17.3 | - | - |
| MSCI World Small Value | 5/31/1994 | 7.8 | 5.2 | 9.5 | 6.2 | 10.0 | - | - | 24.2 | 20.8 | 16.6 | 19.5 | 17.9 | - | - |
| MSCI World Small Cap | 12/29/2000 | 7.5 | 6.6 | 10.2 | 6.6 | 10.3 | - | - | 23.0 | 20.2 | 16.2 | 19.3 | 18.0 | - | - |
| MSCI World Small Growth | 5/31/1994 | 6.5 | 7.5 | 10.7 | 7.0 | 10.6 | - | - | 23.0 | 20.4 | 16.5 | 19.5 | 18.2 | - | - |

Source: Bloomberg

➤ Trailing returns and volatility

| Index | Inception Date | Annualized Total Return | | | | | | | | Standard Deviation | | | | | |
|--------------------------------|----------------|-------------------------|------|-------|-------|-------|-------|-------|------|--------------------|-------|-------|-------|-------|-------|
| | | 3-Yr | 5-Yr | 10-Yr | 15-Yr | 20-Yr | 30-Yr | 40-Yr | 3-Yr | 5-Yr | 10-Yr | 15-Yr | 20-Yr | 30-Yr | 40-Yr |
| MSCI World Ex USA Small Growth | 5/31/1994 | 4.4 | 3.8 | 7.9 | 3.8 | 8.8 | - | - | 21.9 | 19.0 | 15.8 | 19.7 | 18.4 | - | - |
| MSCI World Ex USA Small Cap | 1/31/2002 | 4.8 | 3.2 | 7.7 | 3.6 | 8.9 | - | - | 21.6 | 18.6 | 15.5 | 19.6 | 18.2 | - | - |
| MSCI World Ex USA Small Value | 5/31/1994 | 4.7 | 2.3 | 7.4 | 3.4 | 9.3 | - | - | 22.3 | 18.9 | 15.9 | 19.8 | 18.3 | - | - |
| MSCI World Ex USA Mid Growth | 5/31/1994 | 2.1 | 2.3 | 6.1 | 2.2 | 7.2 | - | - | 20.0 | 17.5 | 14.6 | 18.8 | 17.6 | - | - |
| MSCI World Ex USA Mid | 5/31/1994 | 2.7 | 2.2 | 6.5 | 2.6 | 7.7 | - | - | 20.0 | 17.4 | 14.7 | 18.5 | 17.3 | - | - |
| MSCI World Ex USA Mid Value | 5/31/1994 | 1.6 | 0.8 | 6.4 | 2.6 | 7.9 | - | - | 21.9 | 18.8 | 15.9 | 18.9 | 17.5 | - | - |
| MSCI World Ex USA Large Growth | 5/31/1994 | 5.3 | 6.0 | 7.4 | 3.7 | 7.2 | - | - | 17.3 | 15.3 | 13.4 | 17.0 | 15.9 | - | - |
| MSCI World Ex USA Large NR | 5/31/1994 | 4.2 | 3.4 | 5.7 | 1.9 | 6.0 | - | - | 18.1 | 15.9 | 13.9 | 17.7 | 16.5 | - | - |
| MSCI World Ex USA Large Value | 5/31/1994 | 3.7 | 1.9 | 5.0 | 1.2 | 5.8 | - | - | 21.0 | 18.1 | 15.6 | 19.2 | 17.8 | - | - |

Source: Bloomberg

INDEX DEFINITIONS

Russell 1000 Index:

The Russell 1000® Index measures the performance of the large-cap segment of the US equity universe. It is a subset of the Russell 3000® Index and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000® represents approximately 92% of the US market.

Russell 1000 Value Index:

The Russell 1000® Value Index measures the performance of the large cap value segment of the US equity universe. It includes those Russell 1000® companies with lower price-to-book ratios and lower expected growth values.

Russell 1000 Growth Index:

The Russell 1000® Growth Index measures the performance of the large cap growth segment of the US equity universe. It includes those Russell 1000® companies with higher price-to-book ratios and higher forecasted growth values.

Russell 2000 Index:

The Russell 2000® Index measures the performance of the small-cap segment of the US equity universe. The Russell 2000® Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

Russell 2000 Value Index:

The Russell 2000® Value Index measures the performance of small cap value segment of the US equity universe. It includes those Russell 2000® companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Growth Index:

The Russell 2000® Growth Index measures the performance of the small cap growth segment of the US equity universe. It includes those Russell 2000® companies with higher price-to-value ratios and higher forecasted growth values

Russell 3000 Index:

The Russell 3000® Index measures the performance of the largest 3,000 US companies representing approximately 98% of the investable US equity market.

Russell 3000 Value Index:

The Russell 3000® Value Index measures the performance of the broad value segment of the US equity value universe. It includes those Russell 3000® companies with lower price-to-book ratios and lower forecasted growth values.

Russell 3000 Growth Index:

The Russell 3000® Growth Index measures the performance of the broad growth segment of the US equity universe. It includes those Russell 3000® companies with higher price-to-book ratios and higher forecasted growth values.

Russell Microcap Index:

The Russell Microcap Index measures the performance of the microcap segment of the U.S. equity market. Microcap stocks make up less than 3% of the U.S. equity market (by market cap) and consist of the smallest 1,000 securities in the small-cap Russell 2000® Index, plus the next 1,000 smallest eligible securities by market cap.

Russell Microcap Value Index:

The Russell Microcap Value Index measures the performance of the microcap value segment of the U.S. equity market. It includes Russell Microcap companies that are considered more value oriented relative to the overall market as defined by Russell.

Russell Microcap Growth Index:

The Russell Microcap Growth Index measures the performance of the microcap growth segment of the U.S. equity market. It includes Russell Microcap companies that are considered more growth oriented relative to the overall market as defined by Russell.

DEFINITIONS & CALCULATIONS

INDEX DEFINITIONS Cont.

S&P 500 Index:

The S&P 500® is an index of large-cap U.S. equities. The index includes 500 leading companies and covers approximately 80% of available market capitalization.

S&P 500 Value Index:

S&P measures value stocks using three factors: the ratios of book value, earnings, and sales to price. S&P Style Indices divide the complete market capitalization of each parent index into growth and value segments. Constituents are drawn from the S&P 500®.

S&P 500 Growth Index:

S&P measures growth stocks using three factors: three-year change in earnings per share over price per share, three-year sales per share growth rate, and momentum (12-month percent price change). S&P Style Indices divide the complete market capitalization of each parent index into growth and value segments. Constituents are drawn from the S&P 500®.

S&P 500 Pure Value Index:

S&P measures value stocks using three factors: the ratios of book value, earnings, and sales to price. S&P Style Indices weight stocks in proportion to their relative style propensity. Constituents are drawn from the S&P 500®. The S&P Pure Style index series contains no overlapping stocks in each respective Style index i.e. Pure Growth and Pure Value do not have overlapping stocks.

S&P 500 Pure Growth Index:

S&P measures growth stocks using three factors: three-year change in earnings per share over price per share, three-year sales per share growth rate, and momentum (12-month percent price change). S&P Style Indices weight stocks in proportion to their relative style propensity. Constituents are drawn from the S&P 500®. The S&P Pure Style index series contains no overlapping stocks in each respective Style index i.e. Pure Growth and Pure Value do not have overlapping stocks.

MSCI World Index:

The MSCI World Index captures large and mid cap representation across 23 Developed Markets countries. With 1,646 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI World Value Index:

The index captures large and mid cap securities exhibiting overall value style characteristics across 23 Developed Markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

MSCI World Growth Index:

The index captures large and mid cap securities exhibiting overall growth style characteristics across 23 Developed Markets countries. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

MSCI USA Index:

The MSCI USA Index is designed to measure the performance of the large and mid cap segments of the US market. With 638 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the US.

MSCI USA Value Index:

The index captures large and mid cap US securities exhibiting overall value style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

DEFINITIONS & CALCULATIONS

INDEX DEFINITIONS Cont.

MSCI USA Growth Index:

The index captures large and mid cap securities exhibiting overall growth style characteristics in the US. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

MSCI World ex USA Index:

The MSCI World ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets countries--excluding the United States. With 1,008 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI World ex USA Value Index:

The index captures large and mid cap securities exhibiting overall value style characteristics across 22 of 23 Developed Markets countries--excluding the United States. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

MSCI World ex USA Growth Index:

The index captures large and mid cap securities exhibiting overall growth style characteristics across 22 of 23 Developed Markets countries--excluding the United States. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

CALCULATIONS

Implied Perpetuity Growth Rate ([Slide 13](#)):

Growth rates were calculated using the Gordon Growth Model framework and assumes all earnings are paid as dividends. Forward P/E multiples are 12-month estimates from Bloomberg. Cost of equity is calculated using a fixed 5% equity risk premium and respective 36-month betas to the MSCI USA Index and MSCI World ex USA Index. U.S. risk free rates are represented by 10-year U.S. Treasury yields. World ex USA risk free rates are represented by an equal-weighted average of Japan, UK, France, Canada, Switzerland, and Germany 10-year sovereign yields.

DISCLAIMER

Magnus Financial Group LLC (“Magnus”) did not produce and bears no responsibility for any part of this report whatsoever, including but not limited to any macroeconomic views, inaccuracies or any errors or omissions. Research and data used in the presentation have come from third-party sources that Magnus has not independently verified presentation and the opinions expressed are not by Magnus or its employees and are current only as of the time made and are subject to change without notice.

This report may include estimates, projections or other forward-looking statements, however, due to numerous factors, actual events may differ substantially from those presented. The graphs and tables making up this report have been based on unaudited, third-party data and performance information provided to us by one or more commercial databases. Except for the historical information contained in this report, certain matters are forward-looking statements or projections that are dependent upon risks and uncertainties, including but not limited to factors and considerations such as general market volatility, global economic risk, geopolitical risk, currency risk and other country-specific factors, fiscal and monetary policy, the level of interest rates, security-specific risks, and historical market segment or sector performance relationships as they relate to the business and economic cycle.

Additionally, please be aware that past performance is not a guide to the future performance of any manager or strategy, and that the performance results and historical information provided displayed herein may have been adversely or favorably impacted by events and economic conditions that will not prevail in the future. Therefore, it should not be inferred that these results are indicative of the future performance of any strategy, index, fund, manager or group of managers. Index benchmarks contained in this report are provided so that performance can be compared with the performance of well-known and widely recognized indices. Index results assume the re-investment of all dividends and interest.

The information provided is not intended to be, and should not be construed as, investment, legal or tax advice nor should such information contained herein be construed as a recommendation or advice to purchase or sell any security, investment, or portfolio allocation. An investor should consult with their financial advisor to determine the appropriate investment strategies and investment vehicles. Investment decisions should be made based on the investor's specific financial needs and objectives, goals, time horizon and risk tolerance. This presentation makes no implied or express recommendations concerning the way any client's accounts should or would be handled, as appropriate investment decisions depend upon the client's specific investment objectives.

Investment advisory services offered through Magnus; securities offered through third party custodial relationships. More information about Magnus can be found on its Form ADV at www.adviserinfo.sec.gov.

TERMS OF USE

This report is intended solely for the use of its recipient. There is a fee associated with the access to this report and the information and materials presented herein. Re-distribution or republication of this report and its contents are prohibited. Expert use is implied.