Did You Know?

What Happens if the Yield Curve Inverts?

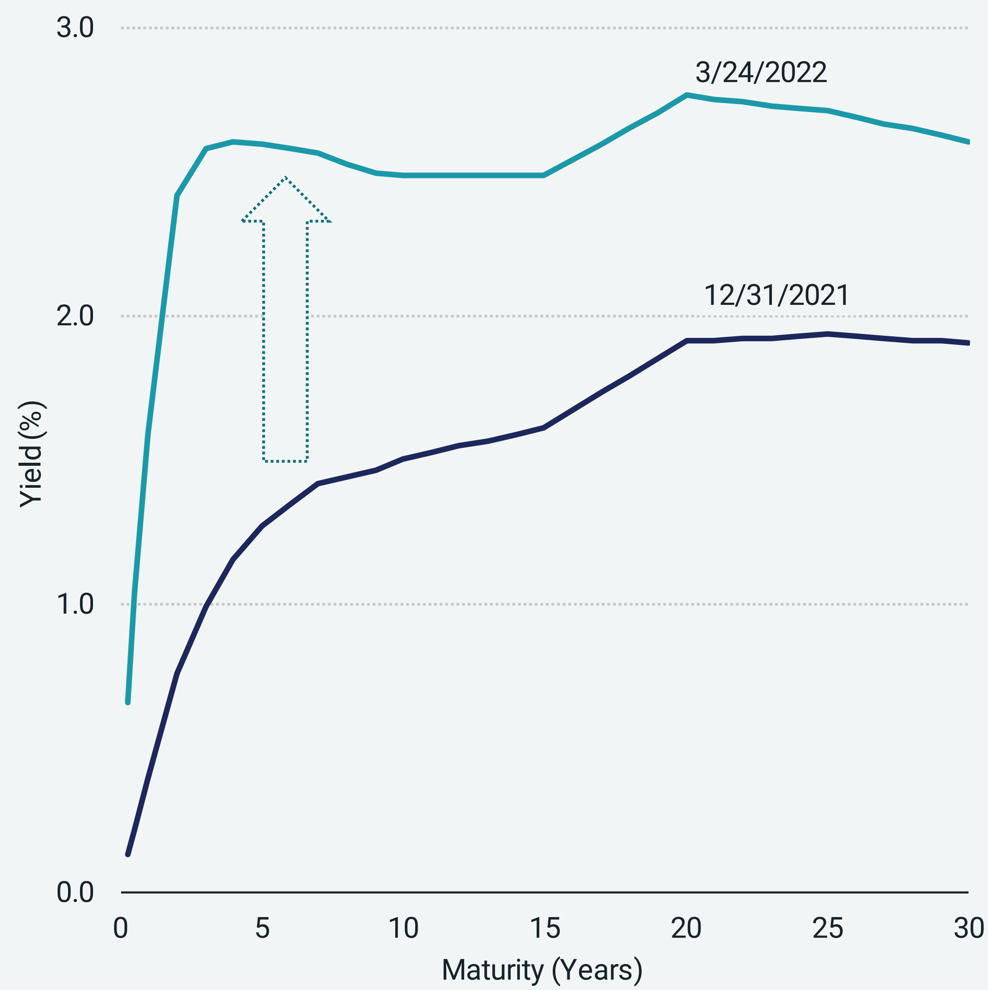
This year's NCAA Men's Basketball Tournament had plenty of "madness," with 10 teams advancing in upsets in the first round, followed by six more upsets in round two and another four upsets in the Sweet 16. The Cinderella story went to the Saint Peter's University Peacocks, who made history as the first No. 15 seed to reach the Elite Eight—or quarterfinal—of the tournament.

No team ranked No. 13 or No. 14 has ever reached the Elite Eight, and just two teams ranked No. 12 have ever reached this prestigious quarterfinal. These rare moments in sports are special because they are so unusual. They capture our attention, and we fixate on the outcome, hoping to see the probabilistic "impossible" become a reality.

While it may not elicit the same excitement as watching a close basketball game, many in the financial industry are paying attention to another potential looming "upset"—the prospect of short-term yields reaching higher levels than long-term yields—otherwise known as a yield curve inversion. A yield curve is a collection of interest rates for debts of various maturities.

So far in 2022, short-term yields have climbed much faster than long-term yields, flattening the yield curve. An inversion can occur at more than one maturity but often cited are 10-year Treasuries versus one- or two-year Treasuries. At the end of 2021, the "spread" or difference between the 10-year Treasury yield and the two-year Treasury yield was 0.75%. As of March 24, this gap had narrowed considerably to just 0.07%.

Figure 1 | Rising Short-Term Rates Have Flattened the U.S. Yield Curve



Data 12/31/2021– 3/24/2022. Source: Bloomberg. Yield is a rate of return for bonds and other fixed-income securities. A yield curve is a line graph that shows yields of fixed-income securities from a single sector (e.g., Treasuries) over various maturities (e.g., five and 10 years) at a single point in time (e.g., 12/31/2020).

Inversions and Recessions

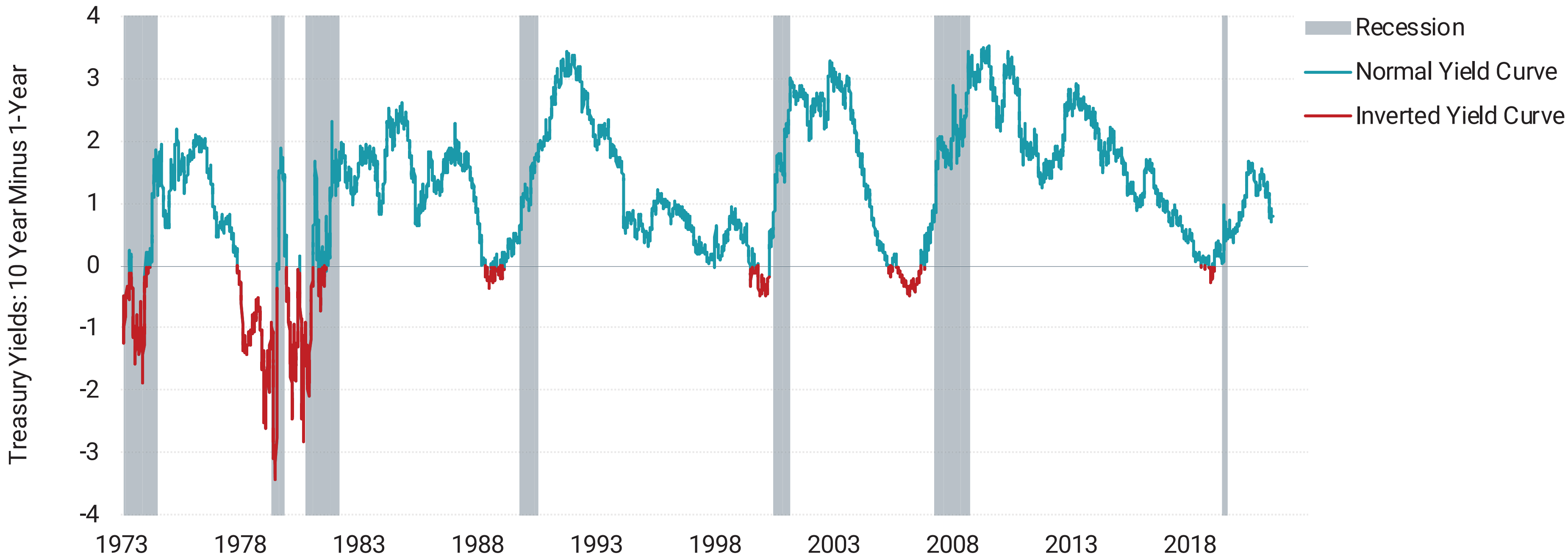
Why do investors pay such close attention to this measure? Yield curves generally slope upward, as the cost to borrow money/interest rate to lend money tends to be higher for the longer the duration of the debt—i.e., lenders demand more for taking on additional uncertainty. When short-term rates approach or overtake long-term rates, potential concerns may include:

- The Federal Reserve could quickly raise rates to combat inflation and, in so doing, cause a recession.
- Investors could be willing to accept lower relative interest rates to hold longer-term government debt, believing long-term prospects for the economy are currently poor.

Besides the theory, there is also past experience. **Figure 2** shows the spread between the 10-year and one-year Treasury since October 1973. Inversions, or when the one-year was higher than the 10-year, are depicted in red. U.S. recessions are highlighted in gray. As **Figure 2** shows, we can see that many recent yield curve inversions preceded a recession.

Figure 2 | Many Yield Curve Inversions Preceded a Recession

Treasury Yield Spreads and Business Cycles Over the Last 50 Years



Data from 10/31/1973 – 3/24/2022. Source: St. Louis Federal Reserve (FRED), National Bureau of Economic Research (NBER), Avantis Investors.

Inversions and Recessions

Given the theory and this past experience, it is understandable that some may see a possible yield curve inversion as a quasi-alarm bell starting to chime. But we would discourage investors from drawing too firm a conclusion from a flattening yield curve.

For one thing, while spreads like the 10-year minus three-month Treasury have recently been good "predictors" of a recession since the 1970s, if we extend our sample further back in time, we can note recessions (1957-1958, 1960-1961) where the curve did not invert, not to mention an inversion in 1966 where a recession did not occur soon after that.

As you may have often heard from economists, there is a stark difference between correlation and causation. In more plain language, just because things have happened close to one another in the past does not necessarily mean that one caused the other.

What About Stocks?

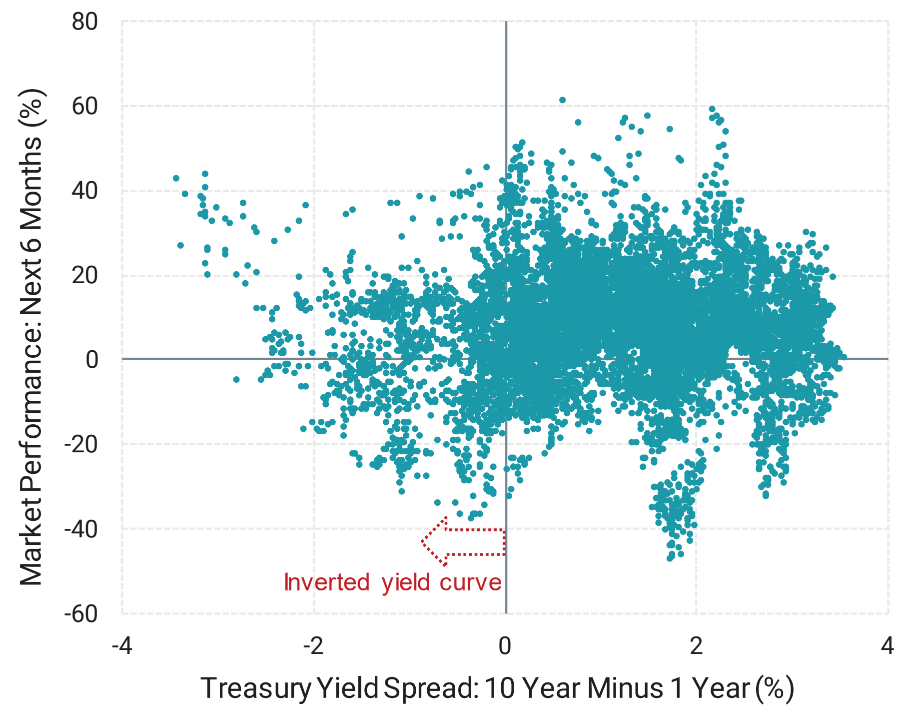
For those who may not be satisfied by the correlation/causation argument, we ran an experiment to see if there was any strong relationship between current yield spreads and subsequent stock returns. The following two figures display results for one shorter-term timeframe and one longer-term timeframe in different forms. There is no reason why we chose one form over the other for each period. We included the different formats as some readers may find one easier to interpret than the other.

Figure 3 is a scatterplot comparing daily yield spreads between 10-year and one-year Treasuries versus the U.S. stock market return over the next six months. Each dot represents a day.

Yield curve inversions are on the left side of the chart when the number along the horizontal (x-axis) is negative.

What do we observe? First, there are lots of positive return observations and negative return observations when the yield curve is inverted. The subsequent six-month returns range from greater than +40% to almost -40%. Second, the data appear more cloud-like, suggesting no strong relation between current yield spreads and subsequent stock market performance.

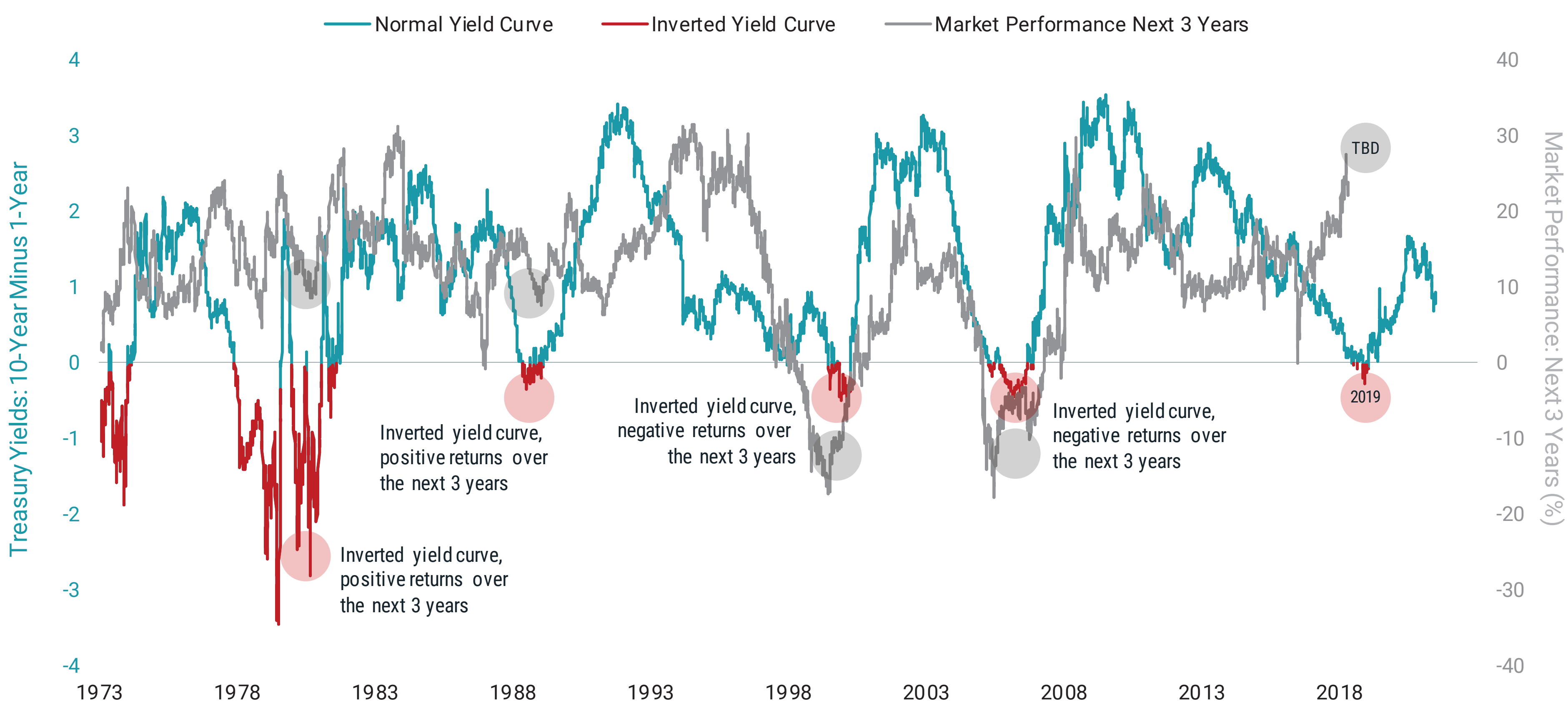
Figure 3 | Current Yield Spreads and Stock Market Performance



What About Stocks?

In **Figure 4**, we plot two lines. We have taken all the daily dots from **Figure 3** and arranged them chronologically. The teal blue line shows the current yield spread over time and is red when the yield curve is inverted (left-hand axis). The gray line shows the subsequent three-year U.S. stock market return (right-hand axis). Once again, we observe a lot of noise. There are many periods where subsequent three-year returns are positive and several where returns are negative. We don't see a strong relationship between these two variables over our sample period.

Figure 4 | Current Yield Spreads and Subsequent Three-Year Stock Market Returns



Data from 10/31/1973 – 12/31/2021. Source: St. Louis Federal Reserve Bank (FRED), Avantis Investors. The CRSP U.S. Total Market Index represents U.S. stock market performance. Source: Avantis Investors. **Past performance is no guarantee of future results.**

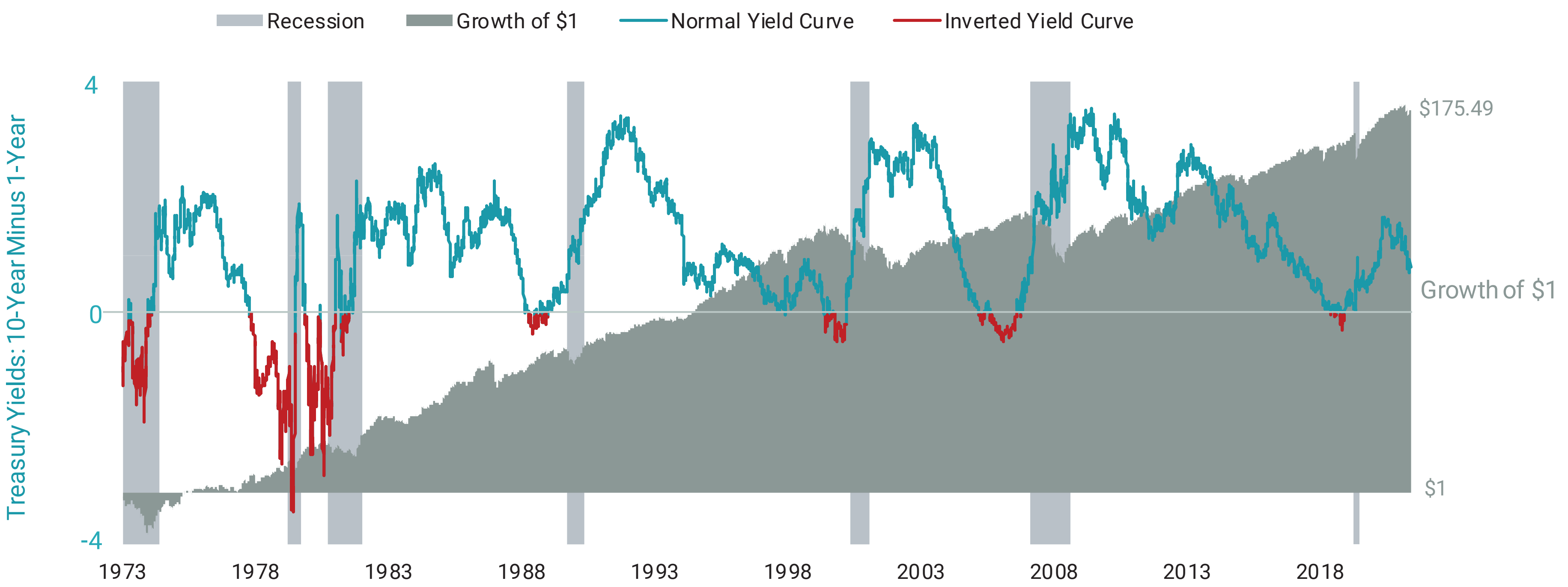
Be Wary of False Alarms

Does an inverted yield curve have economic implications? Perhaps. Should news of a possible yield curve inversion lead you to sell out of stocks? Probably not. Economists and practitioners use countless signals to make predictions about the future.

Former Federal Reserve Chair Alan Greenspan looked to the Men's Underwear Index and decreasing sales as a sign of economic trouble. While there can be logical theories for how or why such signals provide us with certain information, as investors, we are likely better off remembering there is far more that is uncertain.

Uncertainty is something we must face, and while not always comfortable, we believe the ability to stay in your seat and remain invested provides the best chance for good results over the long term. **Figure 5**, which overlays the growth of $1 in the U.S. stock market onto **Figure 1**, shows that there have been market runs and drops in normal and inverted yield curves. Once again this demonstrates how investors willing to stick with stocks over the long haul have historically been rewarded.

Figure 5 | The Stock Market Has Delivered Over the Long Haul Through Inverted Yield Curves and Recessions



Data from 10/31/1973 – 12/31/2021. Source: St. Louis Federal Reserve Bank (FRED), Avantis Investors. The CRSP U.S. Total Market Index represents U.S. stock market performance. Source: Avantis Investors. **Past performance is no guarantee of future results.**

Market Review

Snapshot

In a quarter characterized by soaring inflation, surging oil prices, central bank tightening and war in Ukraine, global stocks and bonds declined. Despite a March rally, stocks were unable to overcome losses in January and February. Meanwhile, U.S. bonds logged their worst quarterly decline since 1980.

- Despite gaining 3.71% in March, the S&P 500 Index fell nearly 5% for the first quarter, snapping a seven-quarter winning streak. All sectors posted negative quarterly returns except energy and utilities.
- U.S. oil futures posted their biggest quarterly gain since 2008. Against this backdrop, the S&P 500 energy sector recorded its best quarter in history, gaining 39%.
- U.S. inflation ended the quarter at 7.9% (year over year), a 40-year-high. European inflation rose to a record 7.5%, while U.K. inflation hit a 30-year high of 6.2%.
- The inflation backdrop prompted the Fed to raise rates for the first time in more than three years. The Bank of England lifted rates for the third time in four months. The European Central Bank left rates at 0% but indicated it may end its asset purchase program sooner than expected.
- U.S. stocks fared much better than non-U.S. developed markets stocks in March and slightly better for the quarter. Emerging markets stocks underperformed their developed markets peers.
- U.S. Treasury yields increased, most significantly among shorter-maturity securities. Rising rates led to widespread losses for bonds.

Returns (%)

INDEX	1 MO	3 MO	YTD	1 YR	3 YR	5 YR	10 YR
U.S. Large-Cap Equity							
S&P 500	3.71	-4.60	-4.60	15.65	18.91	15.98	14.63
U.S. Small-Cap Equity							
Russell 2000	1.24	-7.53	-7.53	-5.79	11.73	9.74	11.03
Intl. Developed Markets Equity							
MSCI World ex USA	1.16	-4.81	-4.81	3.04	8.55	7.13	6.25
Emerging Markets Equity							
MSCI Emerging Markets	-2.26	-6.97	-6.97	-11.37	4.93	5.97	3.36
Global Real Estate Equity							
S&P Global REIT	5.48	-3.81	-3.81	18.97	7.43	7.10	7.48
U.S. Fixed Income							
Bloomberg U.S. Aggregate Bond	-2.78	-5.93	-5.93	-4.15	1.69	2.14	2.24
Global Fixed Income							
Bloomberg Global Aggregate Bond	-3.05	-6.16	-6.16	-6.40	0.69	1.70	1.04
U.S. Cash							
Bloomberg U.S. 1-3 Month Treasury Bill	0.02	0.03	0.03	0.06	0.74	1.07	0.59

Data as of 3/31/2022. Performance in USD. Periods greater than one year have been annualized. Past performance is no guarantee of future results. Source: FactSet.

Equity Returns | Size and Style

U.S.

	QTD Value	QTD Growth	YTD Value	YTD Growth
Large	-0.74%	-9.04%	-0.74%	-9.04%
Small	-2.40%	-12.63%	-2.40%	-12.63%

Non-U.S. Developed Markets

	QTD Value	QTD Growth	YTD Value	YTD Growth
Large	2.54%	-10.69%	2.54%	-10.69%
Small	-2.91%	-11.53%	-2.91%	-11.53%

Emerging Markets

	QTD Value	QTD Growth	YTD Value	YTD Growth
Large	-3.51%	-10.98%	-3.51%	-10.98%
Small	-1.66%	-6.90%	-1.66%	-6.90%

- Although U.S. stocks advanced in March, all major size and style categories declined year to date.
- Large-cap stocks outperformed small-cap stocks in March. Year to date, the broad large- and small-cap indices were down sharply, with small caps underperforming large caps.
- Style results were mixed in March, with growth outperforming value among large caps and value outperforming in the small-cap space. Year to date, growth-stock declines were much more severe than value-style losses.

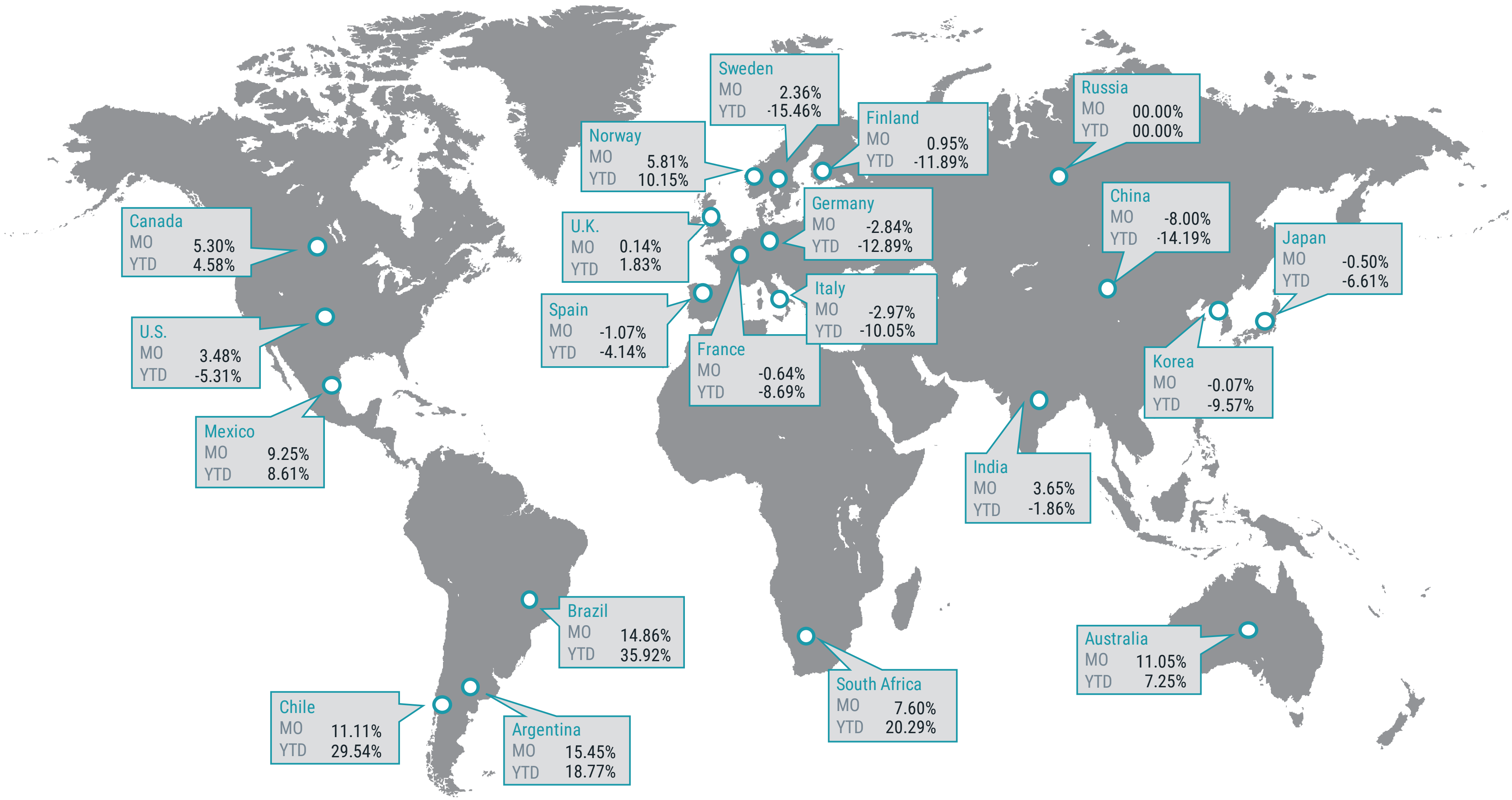
- International developed markets stocks advanced in March but declined for the year-to-date period.
- Large caps outperformed small caps in March. Declines among small-cap stocks were larger than they were among large caps year to date.
- There was little difference in style performance in March. Year to date, large-cap value stocks advanced nearly 3%, while large-cap growth stocks declined almost 11%. Small-cap growth stocks posted much steeper declines than small-cap value stocks.

- The broad emerging markets stock index declined in March and for the year-to-date period.
- Small caps rallied in March and outperformed large-cap stocks, which declined. Small- and large-cap stocks retreated year to date, with large caps posting greater losses than small caps.
- Large-cap growth and value stocks declined in March, while small-cap growth and value stocks advanced. Year to date, growth and value stocks declined across sizes, with the value style faring better than the growth style.

Data as of 3/31/2022. Performance in USD. Past performance is no guarantee of future results. Source: FactSet.

U.S. Equity, International Developed Markets and Emerging Markets Equity style boxes are represented by Russell, MSCI World ex USA and MSCI Emerging Markets indices, respectively.

Equity Returns | Country



Data as of 3/31/2022. Performance in USD. Past performance is no guarantee of future results. Source: FactSet. Countries are represented by MSCI country indices.

Fixed-Income Returns

Soaring inflation and a hawkish Fed drove U.S. Treasury yields sharply higher. U.S. bond returns were negative in March and for the first quarter.

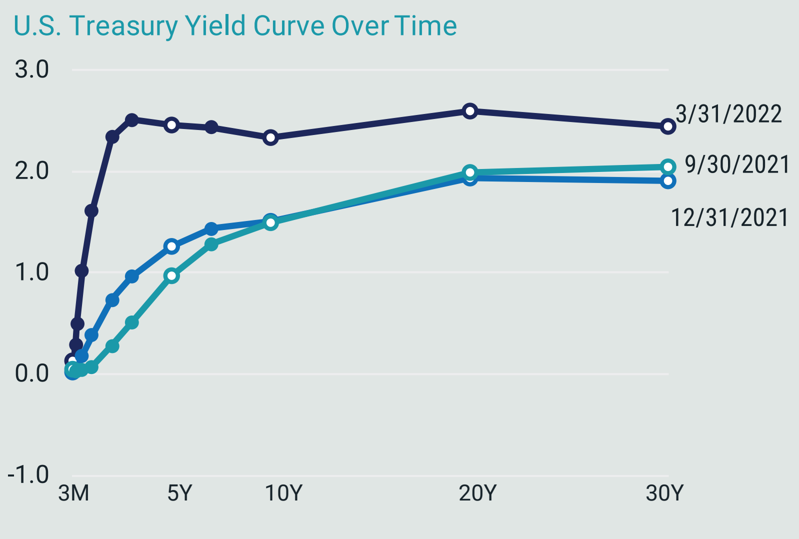
- The Bloomberg U.S. Aggregate Bond Index declined nearly 3% in March, pushing the index down almost 6% for the first quarter. Treasuries, corporate bonds and mortgage-backed securities retreated for the month and quarter.
- The yield on the 10-year U.S. Treasury note rose to 2.34% by the end of March, an 83 bps jump from December 31. The two-year Treasury yield rose 161 bps to 2.34%, matching the 10-year yield and triggering worries about yield curve inversion.
- Annual headline inflation jumped to 7.9% in February, a 40-year high. Rising energy and used car prices largely accounted for the gain.
- At its March policy meeting, the Fed lifted rates 25 bps, the first Fed rate hike since December 2018. At quarter-end, fed futures contracts signaled a 71% probability of a 50-bps rate hike in May. The last time the Fed hiked by 50 bps was in May 2000.
- Municipal bond (muni) yields also rose, and munis underperformed Treasuries in March and for the quarter.
- Amid surging inflation, the 10-year inflation breakeven rate hit a record high in March. Although TIPS declined along with the broad Treasury market, they outperformed nominal Treasuries.

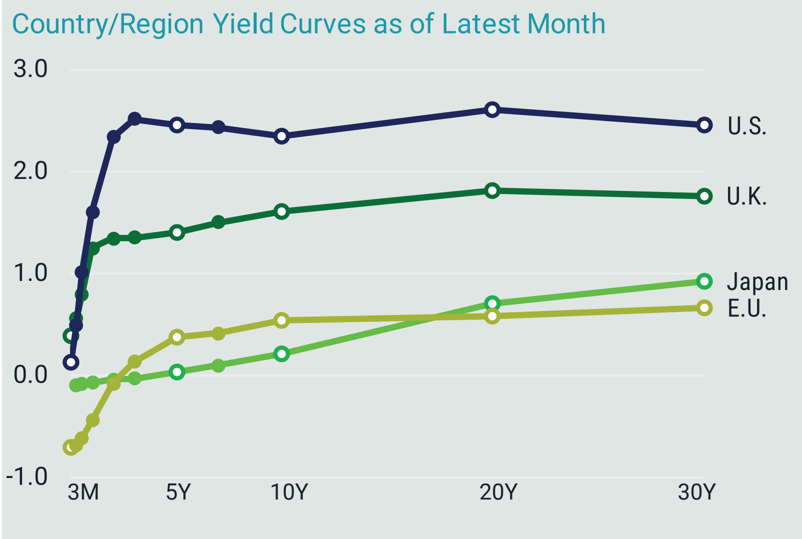
Returns (%)

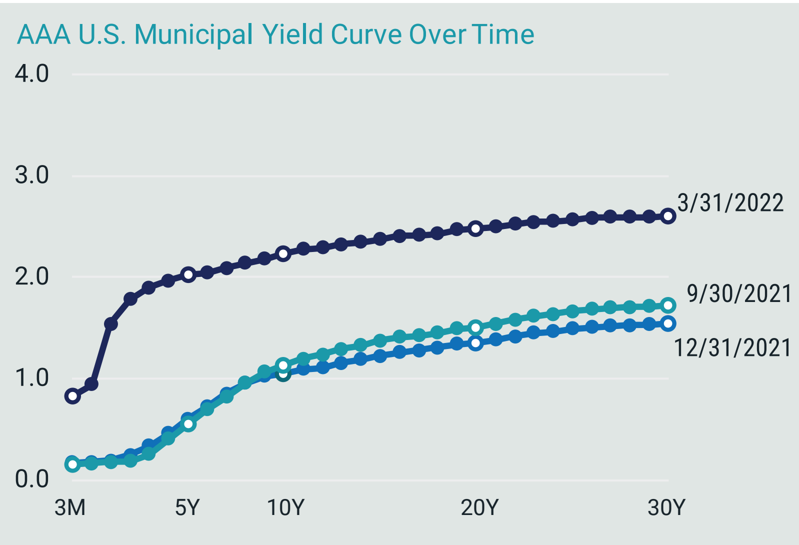
INDEX	1 MO	3 MO	YTD	1 YR	3 YR	5 YR	10 YR
Global Fixed Income Bloomberg Global Aggregate Bond	-3.05	-6.16	-6.16	-6.40	0.69	1.70	1.04
U.S. Fixed Income Bloomberg U.S. Aggregate Bond	-2.78	-5.93	-5.93	-4.15	1.69	2.14	2.24
U.S. High Yield Corporate Bloomberg U.S. Corporate High-Yield Bond	-1.15	-4.84	-4.84	-0.66	4.58	4.69	5.75
U.S. Investment Grade Bloomberg U.S. Corporate Bond	-2.52	-7.69	-7.69	-4.20	3.02	3.34	3.65
Municipals Bloomberg Municipal Bond	-3.24	-6.23	-6.23	-4.47	1.53	2.52	2.88
U.S. TIPS Bloomberg U.S. Treasury - U.S. TIPS	-1.86	-3.02	-3.02	4.29	6.21	4.43	2.69
U.S. Treasuries Bloomberg U.S. Treasury Bond	-3.11	-5.58	-5.58	-3.67	1.39	1.76	1.68
U.S. Cash Bloomberg U.S. 1-3 Month Treasury Bill	0.02	0.03	0.03	0.06	0.74	1.07	0.59

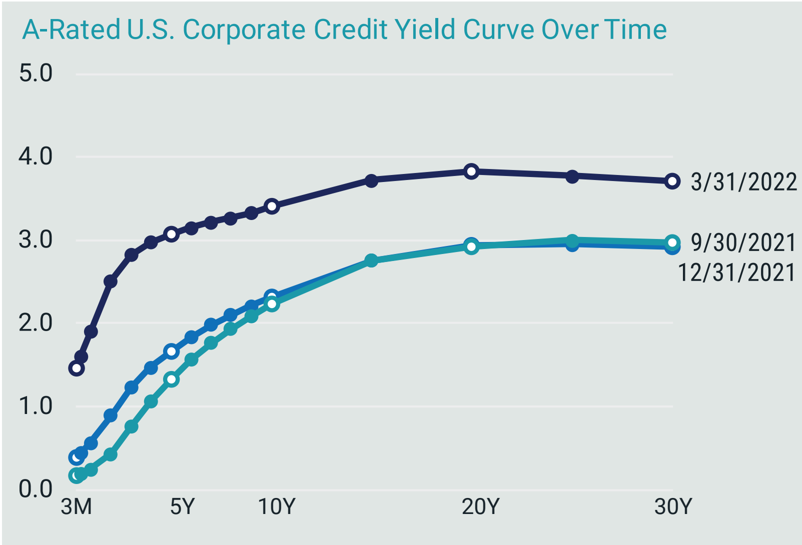
Data as of 3/31/2022. Performance in USD. Periods greater than one year have been annualized. Past performance is no guarantee of future results. Source: FactSet.

Global Yield Curves









Data as of 3/31/2022 Source: Bloomberg.

Yield is a rate of return for bonds and other fixed-income securities. A yield curve is a line graph that shows yields of fixed-income securities from a single sector (e.g., Treasuries) over various maturities (e.g., five and 10 years) at a single point in time (e.g., 12/31/2020).

Appendix

Glossary

Agencies: Agency securities are debt securities issued by U.S. government agencies such as the Federal Home Loan Bank and the Federal Farm Credit Bank. Some agency securities are backed by the full faith and credit of the U.S. government, while others are guaranteed only by the issuing agency.

Basis points (BPS): Basis points are used in financial literature to express values that are carried out to two decimal places (hundredths of a percentage point), particularly ratios, such as yields, fees, and returns. Basis points describe values that are typically on the right side of the decimal point--one basis point equals one one-hundredth of a percentage point (0.01%).

Barclays Global Aggregate Bond Index: A flagship measure of global investment-grade debt from 24 local currency markets. This multicurrency benchmark includes Treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Barclays Global U.S. Treasury - U.S. TIPS Index: Consists of Treasury inflation-protected securities issued by the U.S. Treasury with a remaining maturity of one year or more.

Barclays Municipal Bond Index: A market value-weighted index designed for the long-term tax-exempt bond market.

Barclays U.S. 1-3 Month Treasury Bill Index: A subindex of the Bloomberg Barclays U.S. Short Treasury Index, the Bloomberg Barclays U.S. 1-3 Month Treasury Bill Index is composed of zero-coupon Treasury bills with a maturity between one and three months.

Barclays 1-5 Year U.S. Government/Credit Index: Tracks the market for investment grade, US dollar-denominated, fixed-rate treasuries, government-related and corporate securities.

Barclays U.S. Aggregate Bond Index: Represents securities that are taxable, registered with the Securities and Exchange Commission, and U.S. dollar-denominated. The index covers the U.S. investment-grade fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities.

Barclays U.S. Corporate Bond Index: Measures the investment-grade, fixed-rate, taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Barclays U.S. Corporate High Yield Bond Index: Measures the U.S. dollar-denominated, high-yield (non-investment grade), fixed-rate corporate bond market.

Barclays U.S. Treasury Index: Measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Book-to-Market Ratio: Compares a company's book value relative to its market capitalization. Book value is generally a firm's reported assets minus its liabilities on its balance sheet. A firm's market capitalization is calculated by taking its share price and multiplying it by the number of shares it has outstanding.

CRSP U.S. Total Market Index: Consists of nearly 4,000 constituents across mega, large, small and micro capitalizations, representing nearly 100% of the U.S. investable equity market.

Credit Quality: A measure of the financial strength of the issuer of a security, and the ability of that issuer to provide timely payment of interest and principal to investors in the issuer's securities. Common measurements of credit quality include the credit ratings provided by credit rating agencies such as Standard & Poor's and Moody's.

Dow Jones Industrial Average: An average made up of 30 blue-chip stocks that trade daily on the New York Stock Exchange.

Duration: Measures how long it takes, in years, for an investor to be repaid a bond's price by the bond's total cash flows. It is also a measure of a bond's interest rate sensitivity. The longer the duration, the more sensitive a bond is to interest rate shifts.

Effective Duration: The average duration of all the bonds in a fund. It provides an indication of how a fund's net asset value (NAV) will change as interest rates change.

Emerging Markets Debt: Debt issued by countries whose economies are considered to be developing or emerging from underdevelopment.

Exchange-Traded Fund (ETF): An ETF represents a basket of securities that trades on an exchange, similar to a stock. An ETF differs from a mutual fund in that its share price fluctuates all day as investors buy and sell the ETF. A mutual fund's net asset value (NAV) is calculated once per day after the market closes.

Glossary

Expected Returns: Valuation theory shows that the expected return of a stock is a function of its current price, its book equity (assets minus liabilities) and expected future profits, and that the expected return of a bond is a function of its current yield and its expected capital appreciation (depreciation). We use information in current market prices and company financials to identify differences in expected returns among securities, seeking to overweight securities with higher expected returns based on this current market information. Actual returns may be different than expected returns, and there is no guarantee that the strategy will be successful.

Market Capitalization: The market value of all the equity of a company's common and preferred shares. It is usually estimated by multiplying the stock price by the number of shares for each share class and summing the results.

MSCI Emerging Markets IMI Index: Captures large-, mid- and small-cap securities across 27 emerging markets countries.

MSCI Emerging Markets IMI Value Index: Captures large- and mid-cap securities exhibiting overall value style characteristics across 27 emerging 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 ex USA IMI Index: Captures large-, mid- and small-cap representation across 22 of 23 developed markets countries, excluding the U.S.

MSCI World ex USA Small Cap Index: Captures small-cap representation across 22 of 23 developed markets countries, excluding the U.S.

MSCI World ex USA Value Index: Captures large- and mid-cap securities exhibiting overall value style characteristics across 22 of 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.

Option-Adjusted Spread (OAS): Measures the difference between the yield of a bond with an embedded option and the yield on Treasuries. Call options give the issuer the right to redeem the bond prior to maturity at a preset price, and put options allow the holder to sell the bond back to the company on certain dates. The OAS adjusts the spread to account for these potential changing cash flows.

Profitability-to-Book Ratio: Measures a company's profitability relative to its book value. A company's profitability is generally calculated by subtracting operating expenses from its gross profit. Book value is generally a firm's reported assets minus its liabilities on its balance sheet.

Quality: Describes the portfolio in terms of the quality ratings of the securities it holds. All U.S. government securities are included in the U.S. Government category. Cash and cash equivalents include payable amounts related to securities purchased but not settled at period end.

Credit quality ratings on underlying securities of a fund are obtained from three Nationally Recognized Statistical Rating Organizations (NRSROs), Standard & Poor's, Moody's and Fitch. Ratings are converted to the equivalent Standard & Poor's rating category for purposes of presentation. The median rating is used for securities rated by all three NRSROs. The common rating is used when two of the three NRSROs agree. The lower rating is used when only two NRSROs rate a security. A nonrated designation is assigned when a public rating is not available for a security. This designation does not necessarily indicate low credit quality. The letter ratings are provided to indicate the creditworthiness of the underlying bonds in the portfolio and generally range from AAA (highest) to D (lowest). Includes payable amounts related to securities purchased but not settled at period end.

Due to rounding, these values may exceed 100%. Negative weights, when quoted, may be due to open security or capital stock trades at period end and/or unrealized loss on derivative positions as a percent of net assets at period end. Fund holdings subject to change without notice.

Glossary

Russell 1000® Growth Index: Measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 1000® Value Index: Measures the performance of those Russell 1000 Index companies (the 1,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell 2000® Index: Measures the performance of the 2,000 smallest companies among the 3,000 largest publicly traded U.S. companies, based on total market capitalization.

Russell 2000® Growth Index: Measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with higher price-to-book ratios and higher forecasted growth values.

Russell 2000® Value Index: Measures the performance of those Russell 2000 Index companies (the 2,000 smallest of the 3,000 largest publicly traded U.S. companies, based on total market capitalization) with lower price-to-book ratios and lower forecasted growth values.

Russell 3000® Index: Measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market.

S&P 500® Index: A market-capitalization-weighted index of the 500 largest U.S. publicly traded companies. The index is widely regarded as the best gauge of large-cap U.S. equities.

S&P Global REIT Index: A comprehensive benchmark of publicly traded equity REITs listed in both developed and emerging markets.

S&P National AMT-Free Municipal Bond Index: A broad, comprehensive, market value-weighted index designed to measure the performance of the investment-grade tax-exempt U.S. municipal bond market. Bonds issued by U.S. territories, including Puerto Rico, are excluded from this index. It is not possible to invest directly in an index.

SEC Yield: A calculation based on a 30-day period ending on the last day of the previous month. It is computed by dividing the net investment income per share earned during the period by the maximum offering price per share on the last day of the period.

Securitized Debt: Debt resulting from the process of aggregating debt instruments into a pool of similar debts, then issuing new securities backed by the pool (securitizing the debt). Examples include asset-backed and mortgage-backed securities.

Treasury Inflation-Protected Securities (TIPS): A special type of U.S. Treasury security that is indexed to inflation as measured by the Consumer Price Index, or CPI. At maturity, TIPS are guaranteed by the U.S. government to return at least their initial $1,000 principal value, or that principal value adjusted for inflation, whichever amount is greater. In addition, as their principal values are adjusted for inflation, their interest payments also adjust.

Weighted Average Book-to-Market: An average book-to-market ratio resulting from the multiplication of each security's book-to-market by its weight in the portfolio.

Weighted Average Market Capitalization: An average market capitalization resulting from the multiplication of each security's market capitalization by its weight in the portfolio.

Weighted Average Profitability-to-Book: An average profitability-to-book ratio resulting from the multiplication of each security's profitability-to-book by its weight in the portfolio.

Yield to Maturity: The rate of return an investor will receive if an interest-bearing security, such as a bond, is held to its maturity date. It considers total annual interest payments, the purchase price, the redemption value, and the amount of time remaining until maturity.

Disclosures

You should consider the fund's investment objectives, risks, and charges and expenses carefully before you invest. The fund's prospectus or summary prospectus, which can be obtained by visiting avantisinvestors.com or by calling 833-9AVANTIS, contains this and other information about the fund, and should be read carefully before investing. Investments are subject to market risk.

If this material contains any yield in addition to the 30-day SEC yield, the material must be preceded or accompanied by a current or summary prospectus.

Exchange Traded Funds (ETFs) are bought and sold through an exchange trading at market price (not NAV), and are not individually redeemed from the fund. Shares may trade at a premium or discount to their NAV in the secondary market. Brokerage commissions will reduce returns.

Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost. Past performance is no guarantee of future results.

International investing involves special risks, such as political instability and currency fluctuations. Investing in emerging markets may accentuate these risks.

Historically, small- and/or mid-cap stocks have been more volatile than the stocks of larger, more-established companies. Smaller companies may have limited resources, product lines and markets, and their securities may trade less frequently and in more limited volumes than the securities of larger companies.

This information is for educational purposes only and is not intended as tax advice. Please consult your tax advisor for more detailed information or for advice regarding your individual situation. Portfolio holdings are as of date indicated and subject to change. It is not possible to invest directly in an index.

The opinions expressed are those of the portfolio team and are no guarantee of the future performance of any Avantis fund.

References to specific securities are for illustrative purposes only and are not intended as recommendations to purchase or sell securities. Opinions and estimates offered constitute our judgment and, along with other portfolio data, are subject to change without notice.

Generally, as interest rates rise, the value of the securities held in the fund will decline. The opposite is true when interest rates decline.

Derivatives may be more sensitive to changes in market conditions and may amplify risks.

Municipal Securities investing is more sensitive to events that affect municipal markets, including legislative or political changes and the financial condition of the issuers of municipal securities. The fund may have a higher level of risk than funds that invest in a larger universe of securities. Additionally, the novel coronavirus (COVID-19) pandemic has significantly stressed the financial resources of many municipal issuers, which may impair a municipal issuer's ability to meet its financial obligations when due and could adversely impact the value of its bonds, which could negatively impact the performance of the fund.

Exchange Traded Funds (ETFs): Foreside Fund Services, LLC - Distributor, not affiliated with American Century Investments Services, Inc.