

Q1

Quarterly Market Review

First Quarter 2022



235 St. Charles Way | Suite 200 | York, PA 17402
P: 717-893-5058 | F: 717-296-2277 | info@CollectiveFO.com

Quarterly Market Review

First Quarter 2022

This report features world capital market performance and a timeline of events for the past quarter. It begins with a global overview, then features the returns of stock and bond asset classes in the US and international markets.

The report also illustrates the impact of globally diversified portfolios and features a quarterly topic.

Overview:

Quarterly Topic: What Happens If the Yield Curve Inverts?

Market Summary

World Stock Market Performance

US Stocks

International Developed Stocks

Emerging Markets Stocks

Real Estate Investment Trusts (REITs)

Fixed Income

Global Fixed Income

Commodities

Impact of Diversification

What Happens if the Yield Curve Inverts?

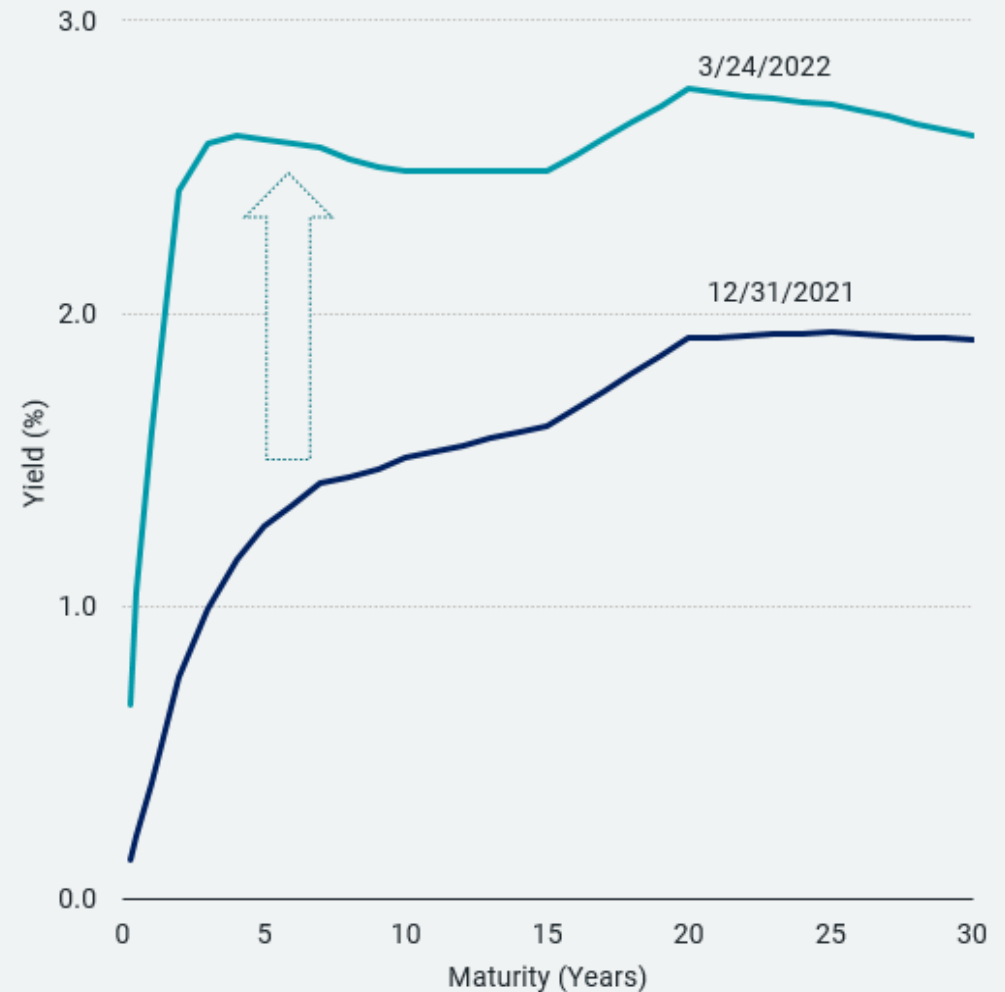
This year's NCAA Men's Basketball Tournament had plenty of "madness," with 10 teams advancing in upsets in the first round, followed by six more upsets in round two and another four upsets in the Sweet 16. The Cinderella story went to the Saint Peter's University Peacocks, who made history as the first 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



Inversions and Recessions

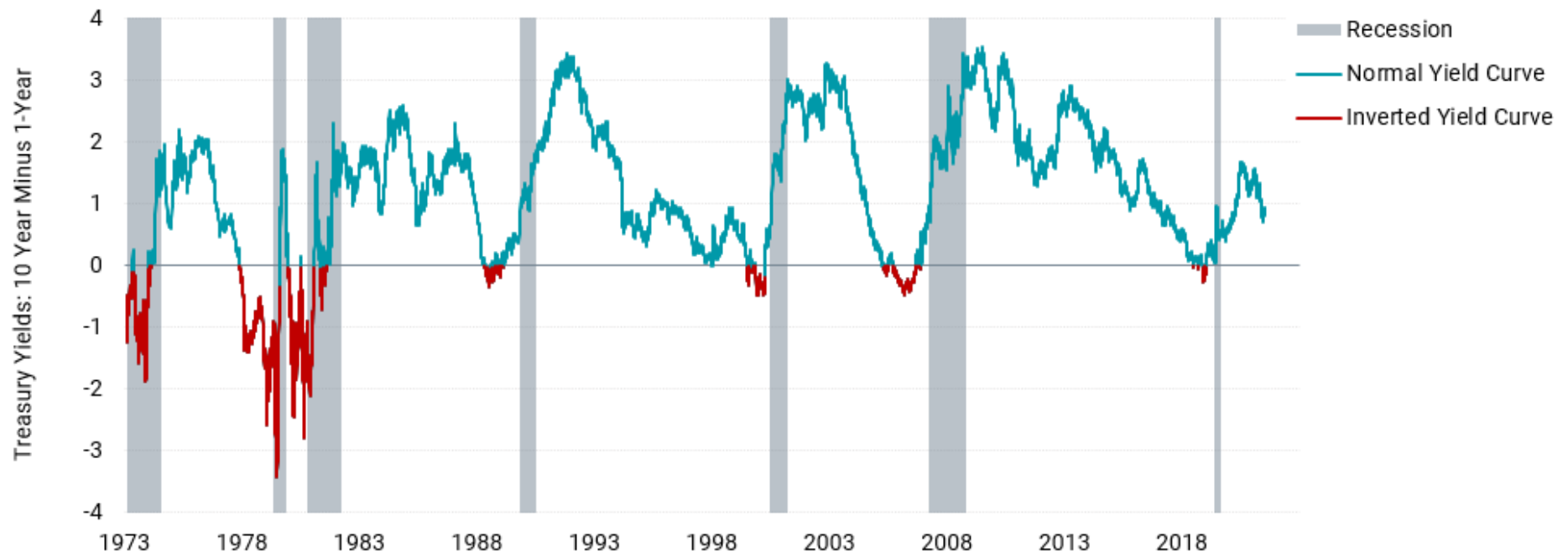
Why do investors pay such close attention to this measure? Yield curves generally slope upward, as the cost to borrow money/interest rate to lend money tends to be higher for the longer the duration of the debt—i.e., lenders demand more for taking on additional uncertainty. When short-term rates approach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



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?

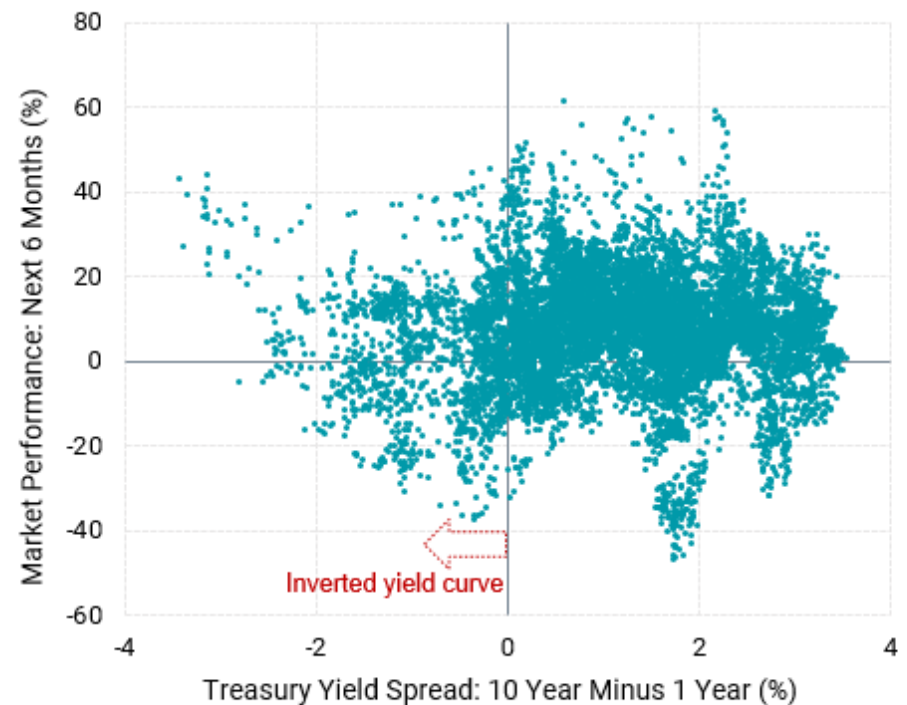
For those who may not be satisfied by the correlation/causation argument, we ran an experiment to see if there was any strong relationship between current yield spreads and subsequent stock returns. The following two figures display results for one shorter-term timeframe and one longer-term timeframe 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.

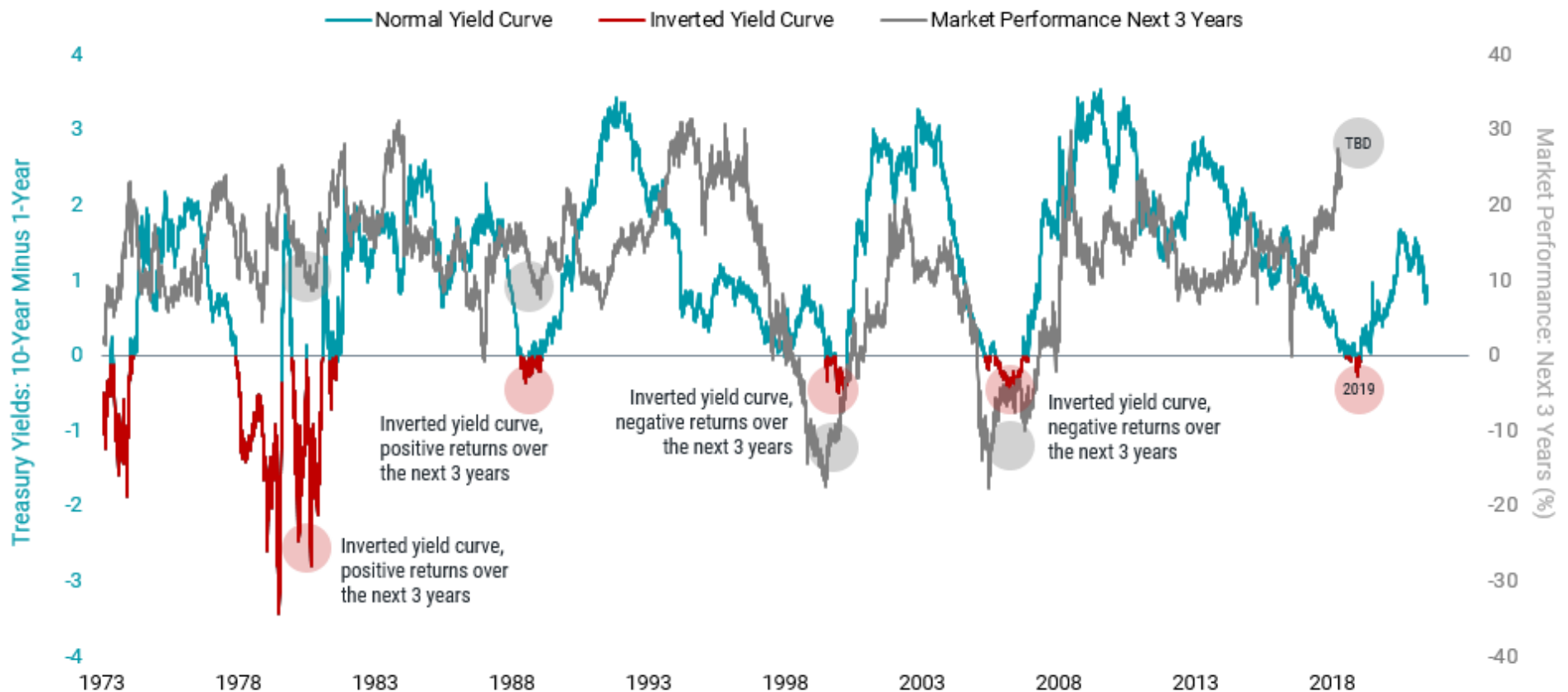
Figure 3 | Current Yield Spreads and Stock Market Performance



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.

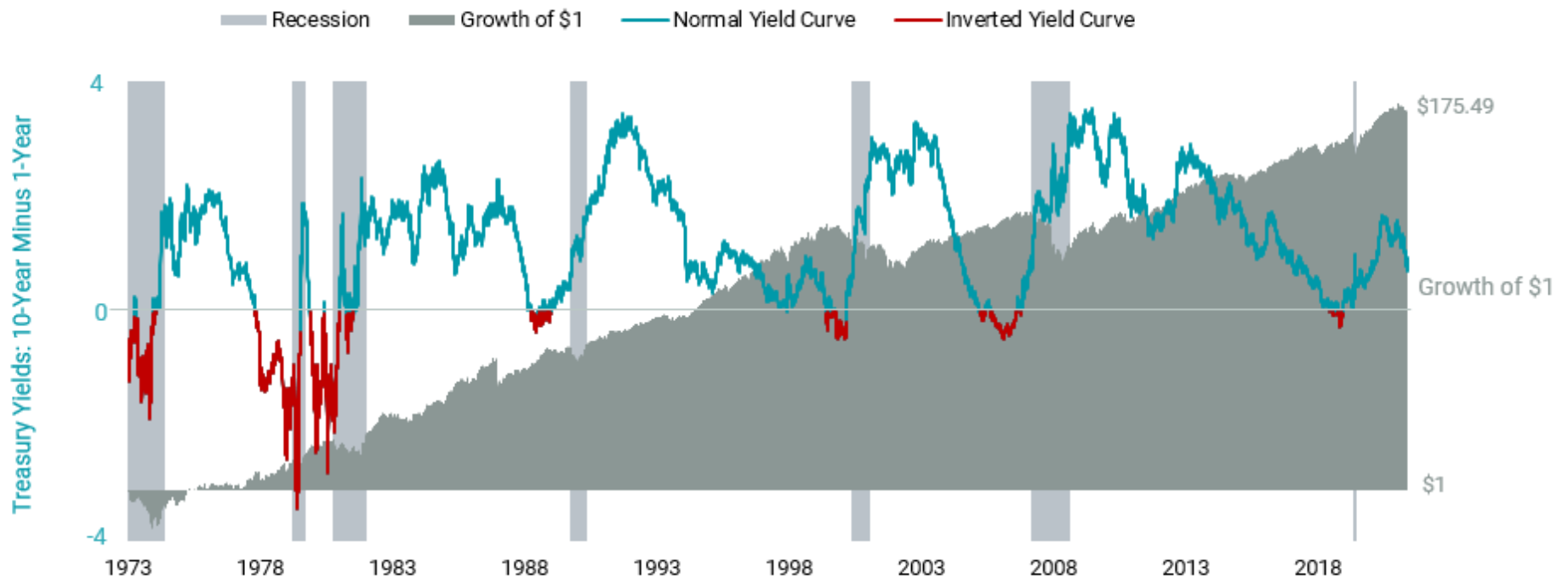
Be Wary of False Alarms

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.

Quarterly Market Summary



















Index returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
Q1 2022	STOCKS				BONDS	
	-5.28%	-4.81%	-6.97%	-3.81%	-5.93%	-4.05%
						
Since Jan. 2001						
Average Quarterly Return	2.4%	1.6%	2.8%	2.6%	1.0%	1.0%
Best Quarter	22.0%	25.9%	34.7%	32.3%	4.6%	4.6%
	2020 Q2	2009 Q2	2009 Q2	2009 Q3	2001 Q3	2008 Q4
Worst Quarter	-22.8%	-23.3%	-27.6%	-36.1%	-5.9%	-4.1%
	2008 Q4	2020 Q1	2008 Q4	2008 Q4	2022 Q1	2022 Q1

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net dividends]), Emerging Markets (MSCI Emerging Markets Index [net dividends]), Global Real Estate (S&P Global REIT Index [net dividends]), US Bond Market (Bloomberg US Aggregate Bond Index), and Global Bond Market ex US (Bloomberg Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved. Bloomberg data provided by Bloomberg.

Long-Term Market Summary

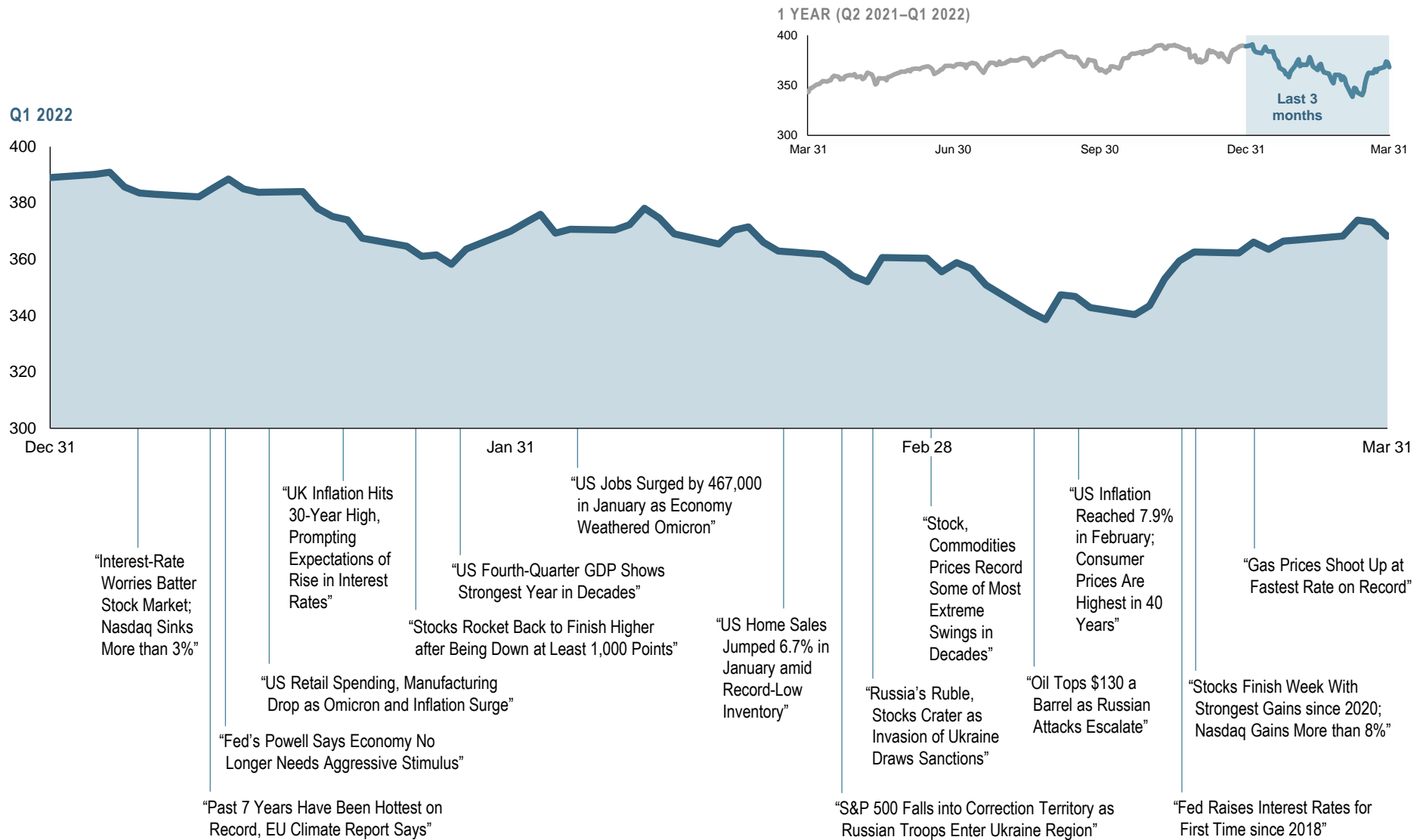
Index returns as of March 31, 2022

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
1 Year	STOCKS				BONDS	
	11.92% 	3.04% 	-11.37% 	18.97% 	-4.15% 	-3.56% 
5 Years	15.40% 	7.14% 	5.98% 	7.10% 	2.14% 	2.25% 
10 Years	14.28% 	6.25% 	3.36% 	7.48% 	2.24% 	3.20% 

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net dividends]), Emerging Markets (MSCI Emerging Markets Index [net dividends]), Global Real Estate (S&P Global REIT Index [net dividends]), US Bond Market (Bloomberg US Aggregate Bond Index), and Global Bond Market ex US (Bloomberg Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved. Bloomberg data provided by Bloomberg.

World Stock Market Performance

MSCI All Country World Index with selected headlines from Q1 2022



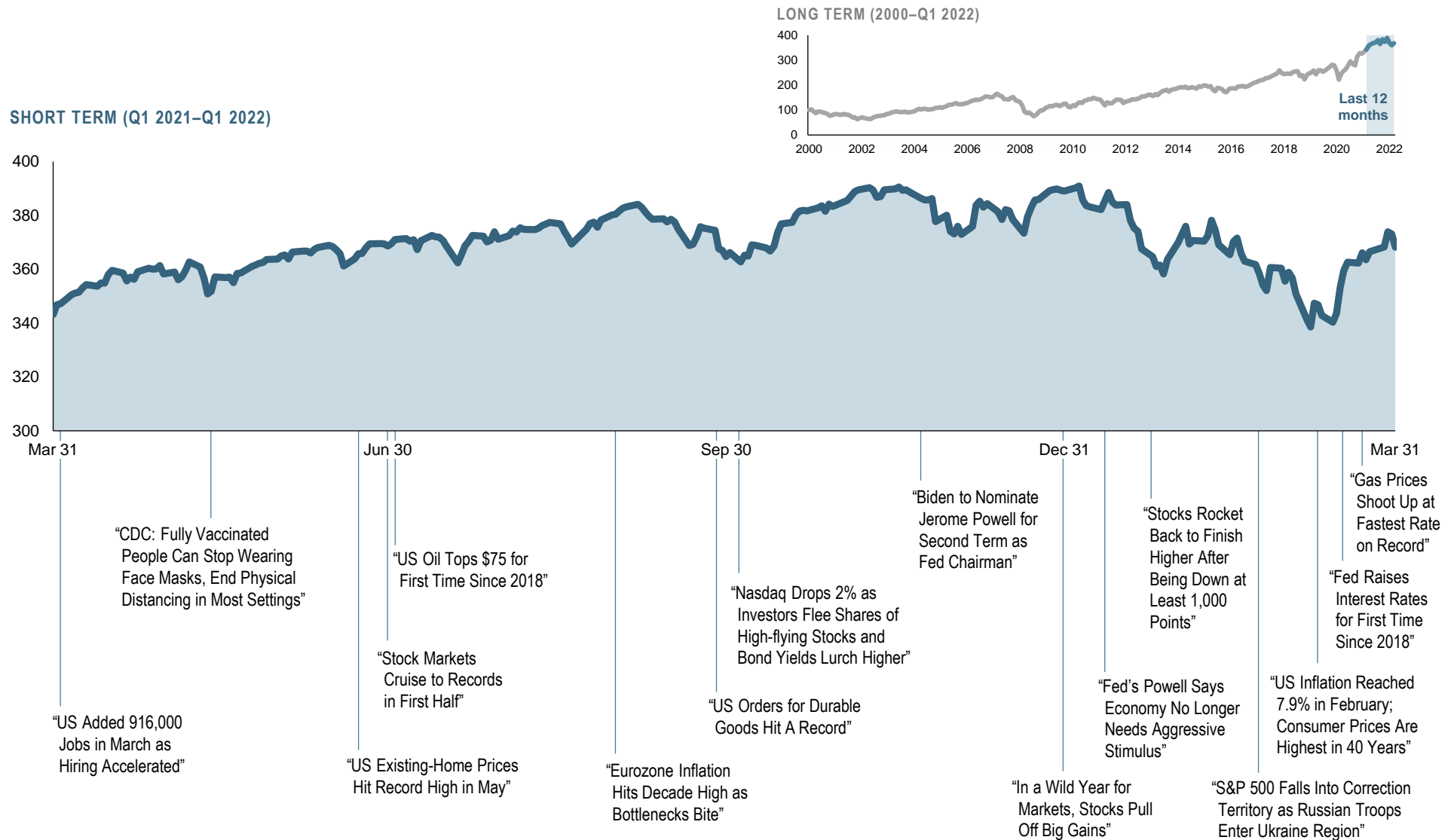
These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

Graph Source: MSCI ACWI Index [net dividends], MSCI data © MSCI 2022, all rights reserved.

It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

World Stock Market Performance

MSCI All Country World Index with selected headlines from past 12 months



These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

Graph Source: MSCI ACWI Index [net dividends], MSCI data © MSCI 2022, all rights reserved.

It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

US Stocks

First quarter 2022 index returns

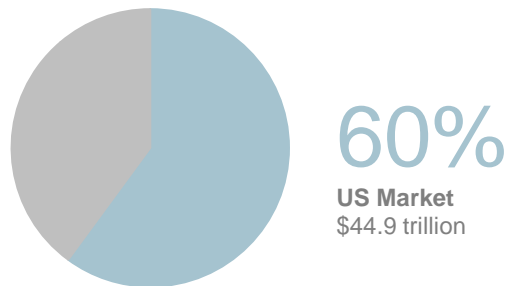
The US equity market posted negative returns for the quarter and underperformed non-US developed markets, but outperformed emerging markets.

Value outperformed growth.

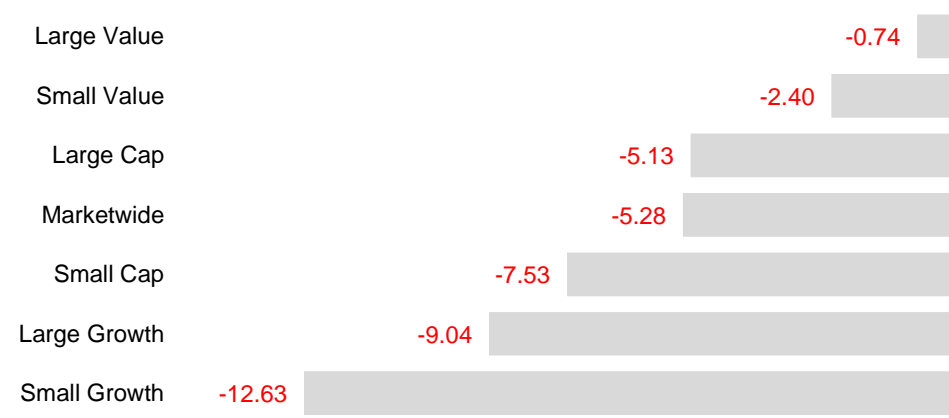
Small caps underperformed large caps.

REIT indices outperformed equity market indices.

World Market Capitalization—US



Ranked Returns (%)



Period Returns (%)

Asset Class	QTR	1 Year	* Annualized		
			3 Years*	5 Years*	10 Years*
Large Value	-0.74	11.67	13.02	10.29	11.70
Small Value	-2.40	3.32	12.73	8.57	10.54
Large Cap	-5.13	13.27	18.71	15.82	14.53
Marketwide	-5.28	11.92	18.24	15.40	14.28
Small Cap	-7.53	-5.79	11.74	9.74	11.04
Large Growth	-9.04	14.98	23.60	20.88	17.04
Small Growth	-12.63	-14.33	9.88	10.33	11.21

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Marketwide (Russell 3000 Index), Large Cap (Russell 1000 Index), Large Value (Russell 1000 Value Index), Large Growth (Russell 1000 Growth Index), Small Cap (Russell 2000 Index), Small Value (Russell 2000 Value Index), and Small Growth (Russell 2000 Growth Index). World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. Russell 3000 Index is used as the proxy for the US market. Dow Jones US Select REIT Index used as proxy for the US REIT market. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved.

International Developed Stocks

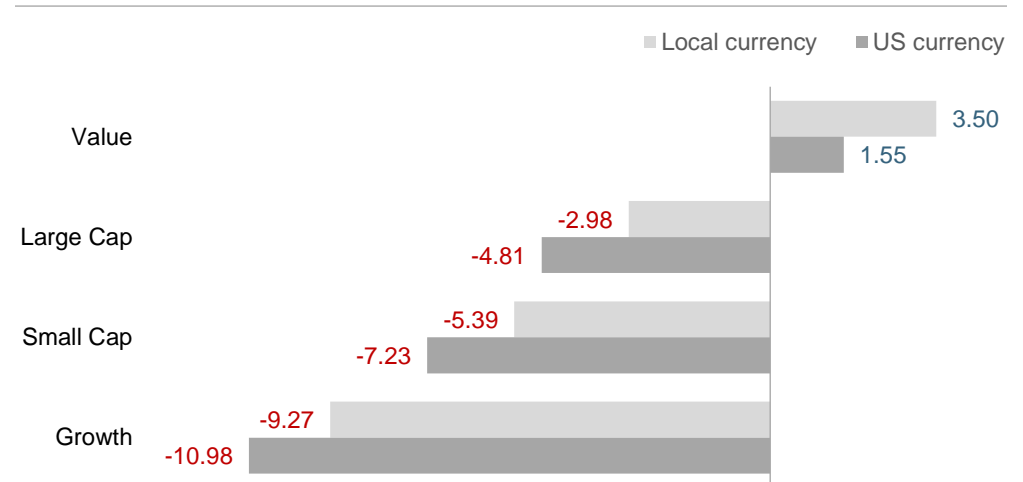
First quarter 2022 index returns

Developed markets outside of the US posted negative returns for the quarter and outperformed both US equities and emerging markets.

Value outperformed growth.

Small caps underperformed large caps.

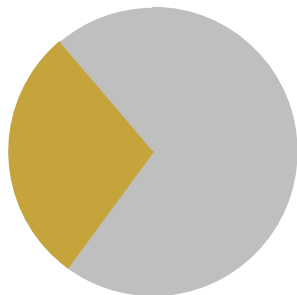
Ranked Returns (%)



World Market Capitalization—International Developed

29%

International
Developed Market
\$21.5 trillion



Period Returns (%)

Asset Class	QTR	1 Year	* Annualized		
			3 Years*	5 Years*	10 Years*
Value	1.55	6.18	6.29	4.86	5.02
Large Cap	-4.81	3.04	8.55	7.14	6.25
Small Cap	-7.23	-1.69	9.55	7.79	7.78
Growth	-10.98	-0.32	10.20	9.07	7.26

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI World ex USA Index), Small Cap (MSCI World ex USA Small Cap Index), Value (MSCI World ex USA Value Index), and Growth (MSCI World ex USA Growth Index). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI World ex USA IMI Index is used as the proxy for the International Developed market. MSCI data © MSCI 2022, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Emerging Markets Stocks

First quarter 2022 index returns

Emerging markets posted negative returns for the quarter, underperforming the US and non-US developed equity markets.

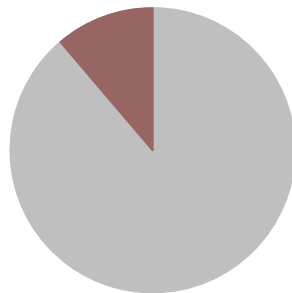
Value outperformed growth.

Small caps outperformed large caps.

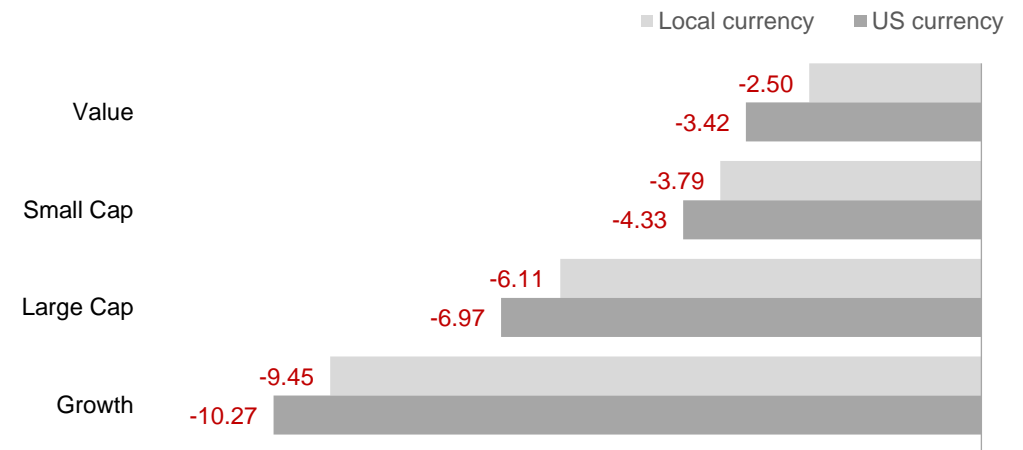
World Market Capitalization—Emerging Markets

11%

Emerging Markets
\$8.4 trillion



Ranked Returns (%)



Period Returns (%)

Asset Class	QTR	1 Year	* Annualized		
			3 Years*	5 Years*	10 Years*
Value	-3.42	-3.53	3.22	4.24	1.58
Small Cap	-4.33	5.52	11.93	7.81	5.31
Large Cap	-6.97	-11.37	4.94	5.98	3.36
Growth	-10.27	-18.29	6.42	7.51	5.00

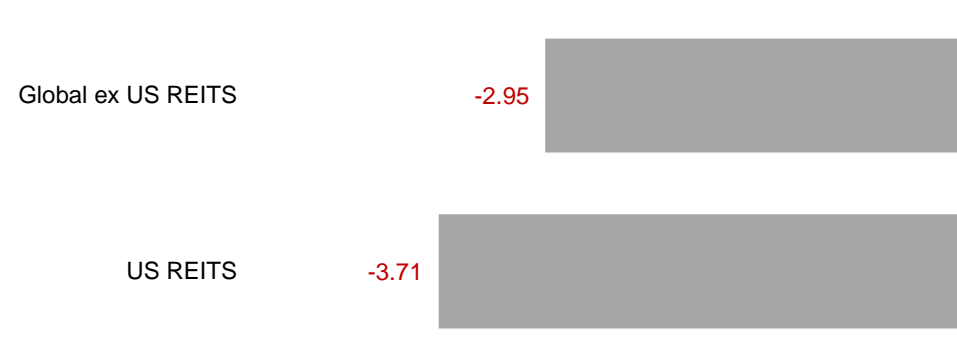
Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index), Small Cap (MSCI Emerging Markets Small Cap Index), Value (MSCI Emerging Markets Value Index), and Growth (MSCI Emerging Markets Growth Index). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI Emerging Markets IMI Index used as the proxy for the emerging market portion of the market. MSCI data © MSCI 2022, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Real Estate Investment Trusts (REITs)

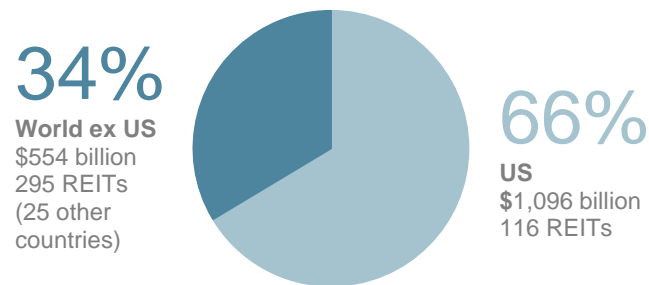
First quarter 2022 index returns

US real estate investment trusts underperformed non-US REITs during the quarter.

Ranked Returns (%)



Total Value of REIT Stocks



Period Returns (%)

Asset Class	QTR	1 Year	* Annualized		
			3 Years*	5 Years*	10 Years*
Global ex US REITS	-2.95	7.00	2.85	4.66	5.72
US REITS	-3.71	27.72	9.90	8.89	9.17

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Number of REIT stocks and total value based on the two indices. All index returns are net of withholding tax on dividends. Total value of REIT stocks represented by Dow Jones US Select REIT Index and the S&P Global ex US REIT Index. Dow Jones US Select REIT Index used as proxy for the US market, and S&P Global ex US REIT Index used as proxy for the World ex US market. Dow Jones and S&P data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Fixed Income

First quarter 2022 index returns

Interest rates increased across all maturities in the US Treasury market for the quarter.

The yield on the 5-Year US Treasury Note increased 116 basis points (bps) to 2.42%. The yield on the 10-Year US Treasury Note increased 80 bps to 2.32%. The yield on the 30-Year US Treasury Bond increased 54 bps to 2.44%.

On the short end of the yield curve, the 1-Month US Treasury Bill yield increased 11 bps to 0.17%, while the 1-Year US Treasury Bill yield increased 124 bps to 1.63%. The yield on the 2-Year US Treasury Note increased 155 bps to 2.28%.

In terms of total returns, short-term corporate bonds returned -3.73% and intermediate-term corporate bonds returned -5.25%.¹

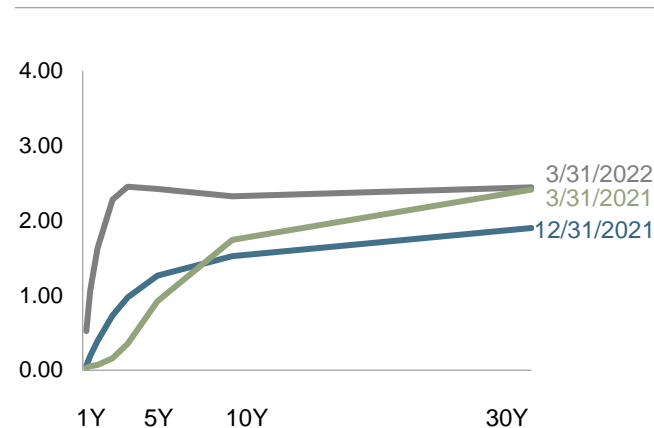
The total return for short-term municipal bonds was -3.33% and -5.77% for intermediate-term municipal bonds. Within the municipal fixed income market, general obligation bonds outperformed revenue bonds, returning -6.07% versus -6.54%, respectively.²

1. Bloomberg US Corporate Bond Index.

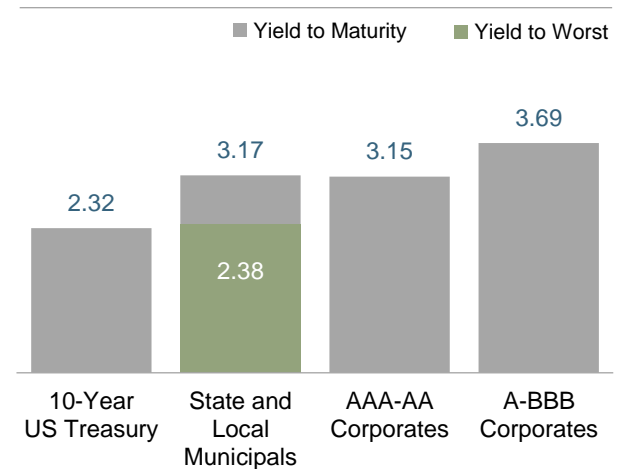
2. Bloomberg Municipal Bond Index.

One basis point (bps) equals 0.01%. Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Yield curve data from Federal Reserve. State and local bonds, and the Yield to Worst are from the S&P National AMT-Free Municipal Bond Index. AAA-AA Corporates represent the ICE BofA US Corporates, AA-AAA rated. A-BBB Corporates represent the ICE BofA Corporates, BBB-A rated. Bloomberg data provided by Bloomberg. US long-term bonds, bills, inflation, and fixed income factor data © Stocks, Bonds, Bills, and Inflation (S&BBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld). FTSE fixed income indices © 2022 FTSE Fixed Income LLC, all rights reserved. ICE BofA index data © 2022 ICE Data Indices, LLC. S&P data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

US Treasury Yield Curve (%)



Bond Yield Across Issuers (%)



Period Returns (%)

Asset Class	QTR	1 Year	3 Years*	5 Years*	10 Years*
ICE BofA US 3-Month Treasury Bill Index	0.04	0.06	0.81	1.13	0.63
ICE BofA 1-Year US Treasury Note Index	-0.80	-0.94	1.01	1.22	0.78
FTSE World Government Bond Index 1-5 Years (hedged to USD)	-2.38	-2.81	0.86	1.34	1.36
Bloomberg U.S. TIPS Index	-3.02	4.29	6.22	4.43	2.69
FTSE World Government Bond Index 1-5 Years	-3.56	-5.58	0.05	0.74	-0.64
Bloomberg U.S. High Yield Corporate Bond Index	-4.84	-0.66	4.58	4.69	5.75
Bloomberg U.S. Aggregate Bond Index	-5.93	-4.15	1.69	2.14	2.24
Bloomberg Municipal Bond Index	-6.23	-4.47	1.53	2.52	2.88
Bloomberg U.S. Government Bond Index Long	-10.57	-1.46	3.23	3.88	3.96

*Annualized

Global Fixed Income

First quarter 2022 yield curves

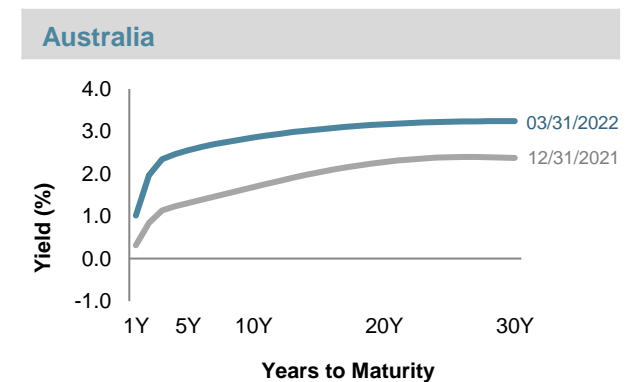
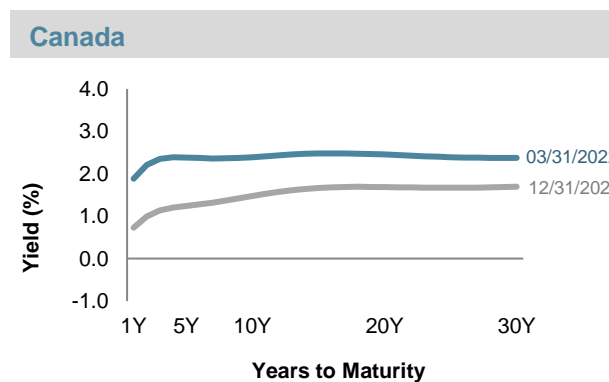
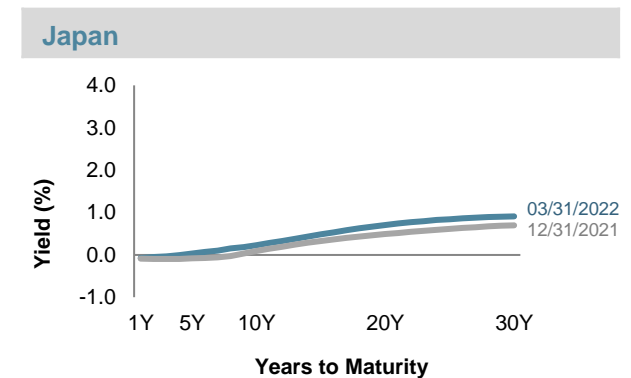
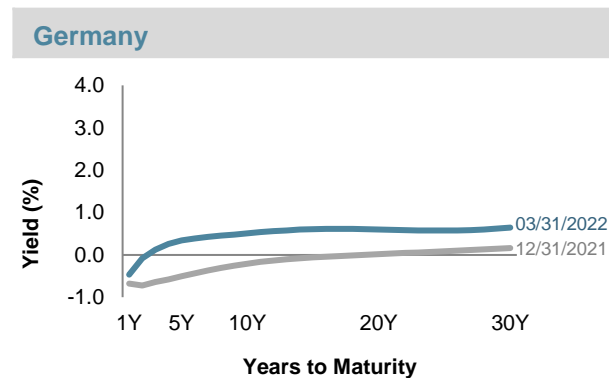
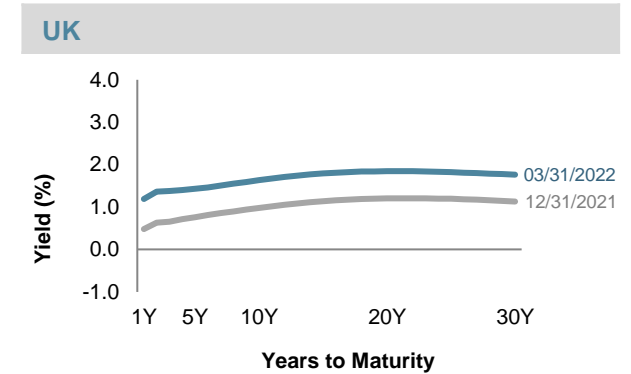
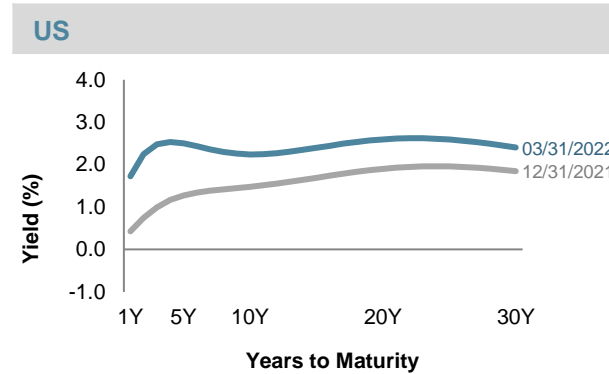
Interest rates increased across all maturities within the global developed markets for the quarter.

Realized term premiums were negative in the global developed markets.

In Japan and Germany, intermediate-term nominal interest rates became positive during the quarter. However, short-term nominal interest rates remained negative in these markets.

Changes in Yields (bps) since 12/31/2021

	1Y	5Y	10Y	20Y	30Y
US	130.0	123.0	76.4	69.5	55.5
UK	70.7	66.5	65.5	64.2	63.2
Germany	21.3	84.4	71.4	58.3	48.4
Japan	1.6	11.5	14.1	21.3	21.2
Canada	115.0	114.3	91.8	76.7	68.0
Australia	70.3	124.1	116.9	89.0	86.7



Commodities

First quarter 2022 index returns

The Bloomberg Commodity Index Total Return returned +25.55% for the first quarter of 2022.

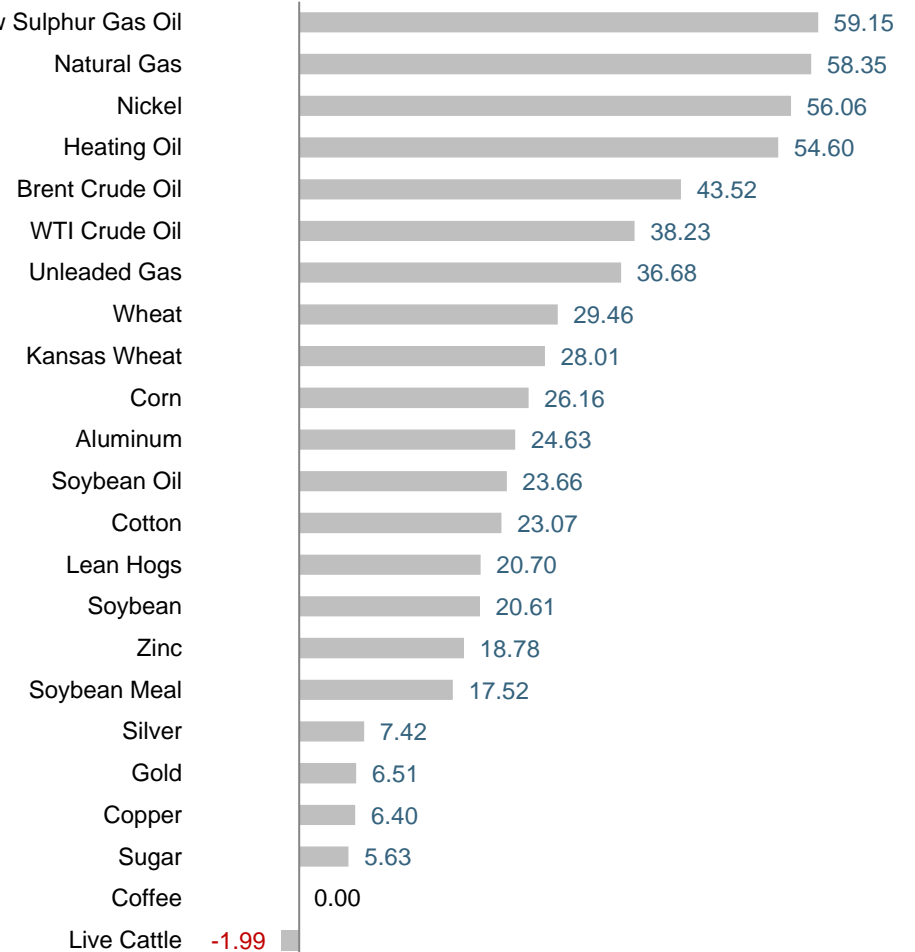
Low Sulphur Gas Oil and Natural Gas were the best performers, returning +59.15% and +58.35% during the quarter, respectively. Live Cattle and Coffee were the worst performers, returning -1.99% and 0.00% during the quarter, respectively.

Period Returns (%)

* Annualized

Asset Class	QTR	1 Year	3 Years*	5 Years*	10 Years*
Commodities	25.55	49.25	16.12	9.00	-0.70

Ranked Returns (%)



Impact of Diversification

As of December 31, 2021

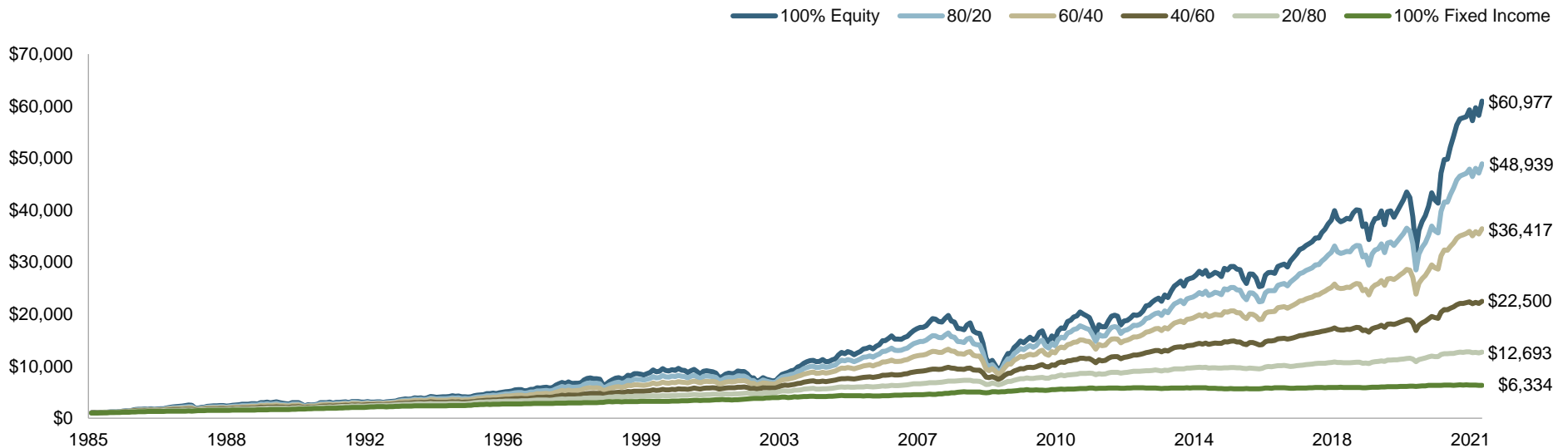
These indices illustrate the performance of different global stock/bond mixes and highlight the benefits of diversification. Mixes with larger allocations to stocks are considered riskier but have higher expected returns over time.

Period Returns (%)

* Annualized

Dimensional Core Plus Wealth Index Model	3 Month	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV ¹
100% Equity	6.61	22.63	21.12	14.57	13.24	14.11
80/20	5.30	17.70	18.49	12.90	11.94	11.76
60/40	3.86	12.63	15.37	10.82	9.99	9.07
40/60	2.22	7.79	10.82	7.75	7.28	6.13
20/80	0.55	2.10	6.40	4.89	4.05	3.71
100% Fixed Income	-0.51	-0.93	2.20	1.98	0.97	1.73

Growth of Wealth: The Relationship Between Risk and Return



1. STDEV (standard deviation) is a measure of the variation or dispersion of a set of data points. Standard deviations are often used to quantify the historical return volatility of a security or portfolio.

Diversification does not eliminate the risk of market loss. For illustrative purposes only. Past performance is no guarantee of future results. The performance reflects the growth of a hypothetical \$1,000. Assumes all models have been rebalanced monthly. See appendix for allocation information. All performance results are based on performance of indexes with model/back-tested asset allocations; the performance was achieved with the benefit of hindsight; it does not represent actual investment strategies. The index models are unmanaged and the model's performance does not reflect advisory fees or other expenses associated with the management of an actual portfolio. In particular, Model performance may not reflect the impact that economic and market factors may have had on the advisor's decision making if the advisor were actually managing client money. The models are not recommendations for an actual allocation. Indices are not available for direct investment. Backtested performance results assume the reinvestment of dividends and capital gains. Sources: Dimensional Fund Advisors LP for Dimensional Indices. Copyright 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

General Disclaimer

Collective Family Office, LLC is registered as an investment adviser with the SEC and only conducts business in states where it is properly registered or is excluded from registration requirements. Registration is not an endorsement of the firm by securities regulators and does not mean the adviser has achieved a specific level of skill or ability.

Information presented is believed to be current. It should not be viewed as personalized investment advice. All expressions of opinion reflect the judgment of the presenter on the date of the presentation and may change in response to market conditions. You should consult with a professional advisor before implementing any strategies discussed.

Content should not be viewed as an offer to buy or sell any of the securities mentioned or as legal or tax advice. You should always consult an attorney or tax professional regarding your specific legal or tax situation.

All investments and strategies have the potential for profit or loss. Different types of investments involve higher and lower levels of risk. There is no guarantee that a specific investment or strategy will be suitable or profitable for an investor's portfolio. There are no assurances that a portfolio will match or exceed any particular benchmark.

The information in this document is provided in good faith without any warranty and is intended for the recipient's background information only. It does not constitute investment advice, recommendation, or an offer of any services or products for sale and is not intended to provide a sufficient basis on which to make an investment decision. It is the responsibility of any persons wishing to make a purchase to inform themselves of and observe all applicable laws and regulations. Unauthorized copying, reproducing, duplicating, or transmitting of this document are strictly prohibited. Collective Family Office, LLC accepts no responsibility for loss arising from the use of the information contained herein.

"Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd, Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services. Dimensional Fund Advisors LP is an investment advisor registered with the Securities and Exchange Commission. *What Happens If the Yield Curve Inverts?* was originally published by Avantis Investors in their April 2022 Field Guide.

Named securities may be held in accounts managed by Collective Family Office, LLC. This information should not be considered a recommendation to buy or sell a particular security. Diversification does not protect against loss in declining markets. There is no guarantee strategies will be successful.