



Q1

Quarterly Market Review
First Quarter 2023

Quarterly Market Review

First quarter 2023



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 concludes with a quarterly topic.

Overview:

Market Summary

World Stock Market Performance

US Stocks

International Developed Stocks

Emerging Markets Stocks

Country Returns

Real Estate Investment Trusts (REITs)

Commodities

Fixed Income

Global Fixed Income

Quarterly Topic: When Headlines Worry You, Bank on Investment Principles

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 2023	STOCKS				BONDS	
	7.18%	8.02%	3.96%	1.37%	2.96%	2.86%
Since Jan. 2001						
Average Quarterly Return	2.2%	1.5%	2.5%	2.2%	0.9%	0.9%
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 © 2023 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 2023, all rights reserved. Bloomberg data provided by Bloomberg.

Long-Term Market Summary

Index returns as of March 31, 2023



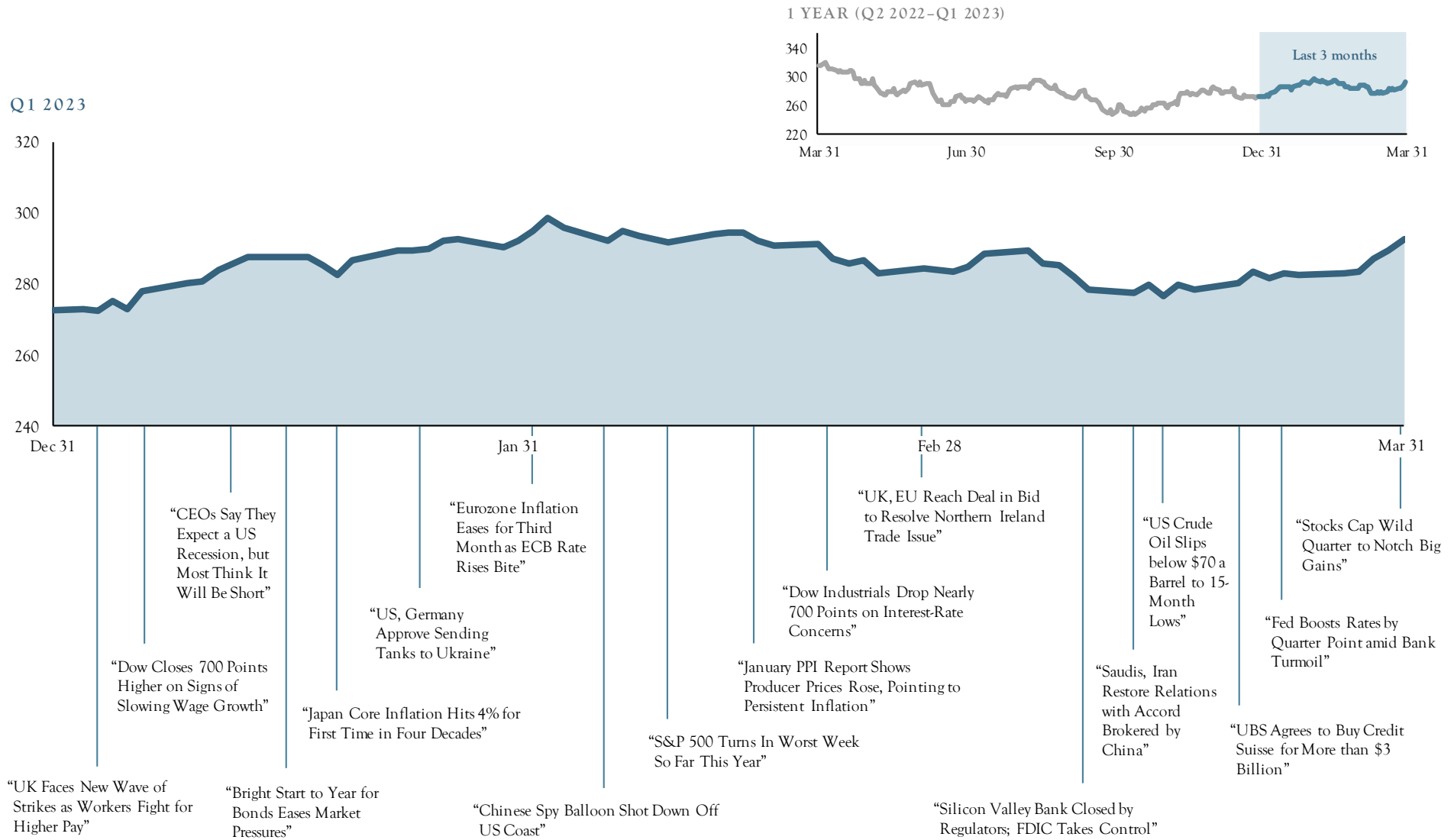
	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
1 Year	STOCKS				BONDS	
	-8.58%	-2.74%	-10.70%	-20.29%	-4.78%	-3.27%
5 Years						
	10.45%	3.80%	-0.91%	2.41%	0.91%	0.90%
10 Years						
	11.73%	4.91%	2.00%	3.26%	1.36%	2.28%

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 © 2023 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 2023, all rights reserved. Bloomberg data provided by Bloomberg.



World Stock Market Performance

MSCI All Country World Index with selected headlines from Q1 2023



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 2023, all rights reserved. Index level based at 100 starting January 2000.

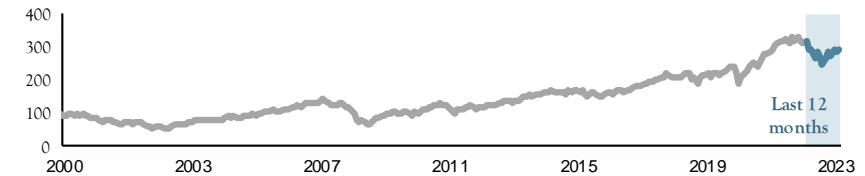
It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. Past performance is not a guarantee of future results.



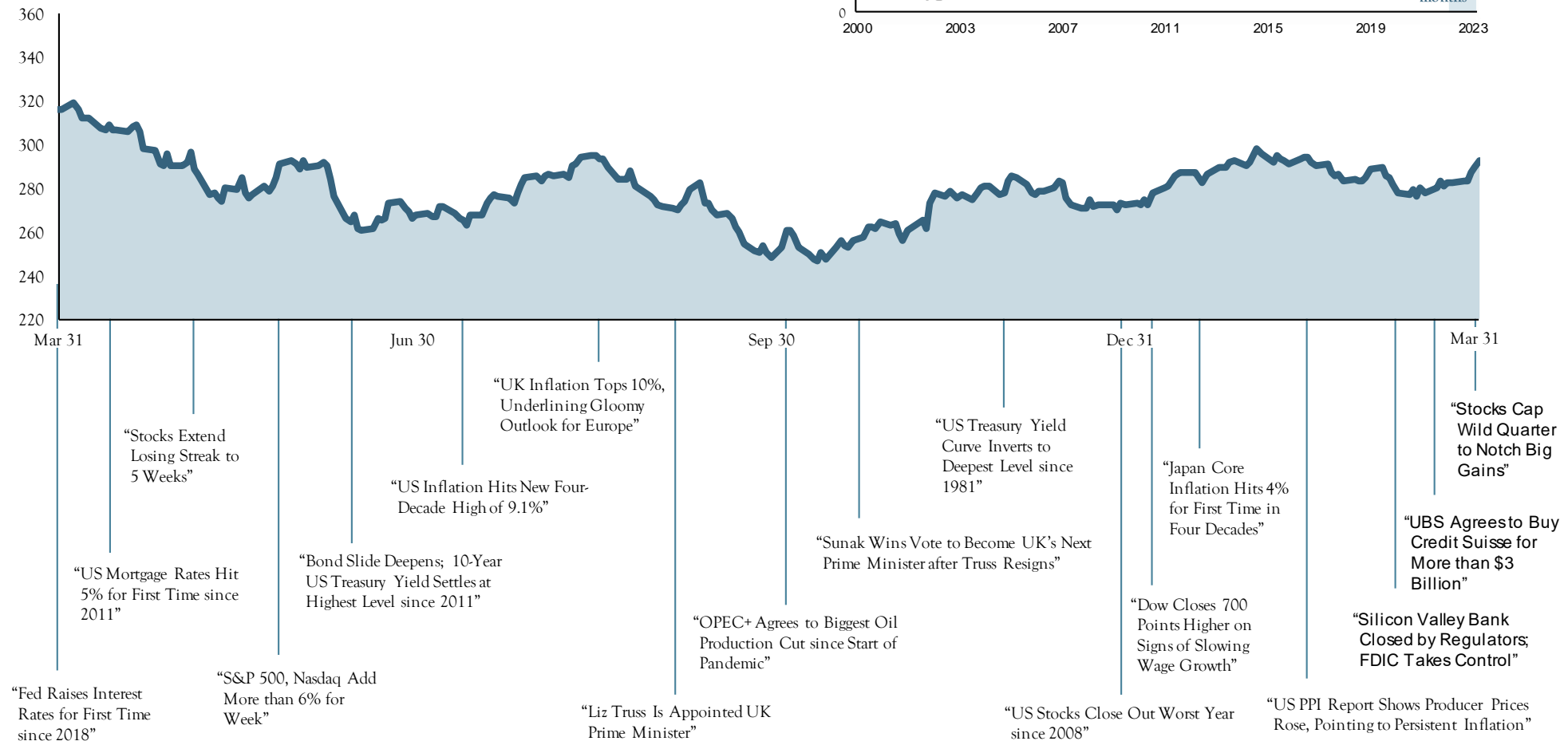
World Stock Market Performance

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

LONG TERM (2000-Q1 2023)



SHORT TERM (Q2 2022-Q1 2023)



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 2023, all rights reserved. Index level based at 100 starting January 2000.

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 2023 index returns



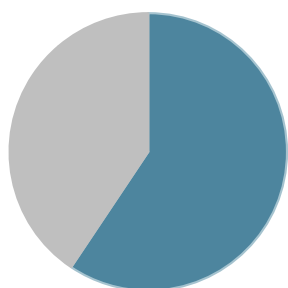
The US equity market posted positive returns for the quarter and underperformed non-US developed markets, but outperformed emerging markets.

Value underperformed growth.

Small caps underperformed large caps.

REIT indices underperformed equity market indices.

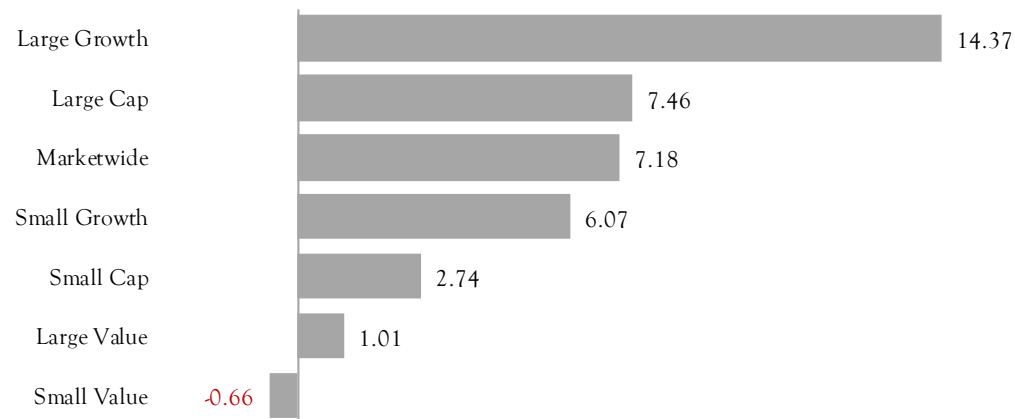
World Market Capitalization—US



59% US

Market
\$40.1 trillion

Ranked Returns (%)



Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Large Growth	14.37	-10.90	18.58	13.66	14.59
Large Cap	7.46	-8.39	18.55	10.87	12.01
Marketwide	7.18	-8.58	18.48	10.45	11.73
Small Growth	6.07	-10.60	13.36	4.26	8.49
Small Cap	2.74	-11.61	17.51	4.71	8.04
Large Value	1.01	-5.91	17.93	7.50	9.13
Small Value	-0.66	-12.96	21.01	4.55	7.22

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 2023, all rights reserved.

International Developed Stocks

First quarter 2023 index returns



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

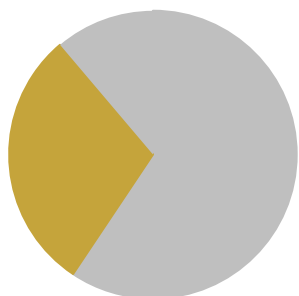
Value underperformed growth.

Small caps underperformed large caps.

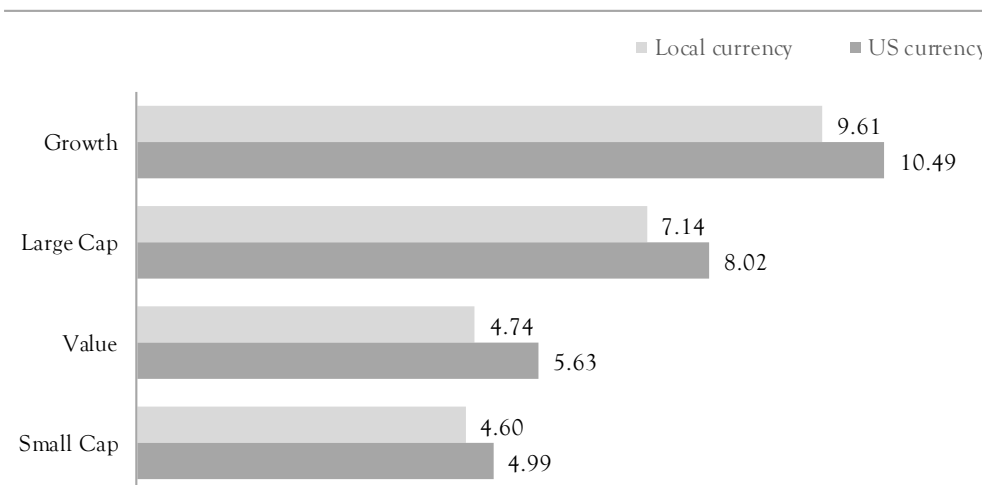
World Market Capitalization—International Developed

29%

International Developed Market
\$19.9 trillion



Ranked Returns (%)



Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Growth	10.49	-4.04	11.15	4.96	5.77
Large Cap	8.02	-2.74	13.49	3.80	4.91
Value	5.63	-1.85	15.32	2.18	3.80
Small Cap	4.99	-10.13	13.43	1.54	5.54

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 2023, 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 2023 index returns



Emerging markets posted positive returns for the quarter and underperformed both US and non-US developed markets.

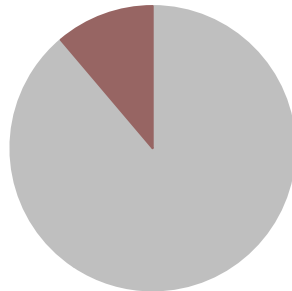
Value underperformed growth.

Small caps underperformed large caps.

World Market Capitalization—Emerging Markets

11%

Emerging Markets
\$7.6 trillion



Ranked Returns (%)



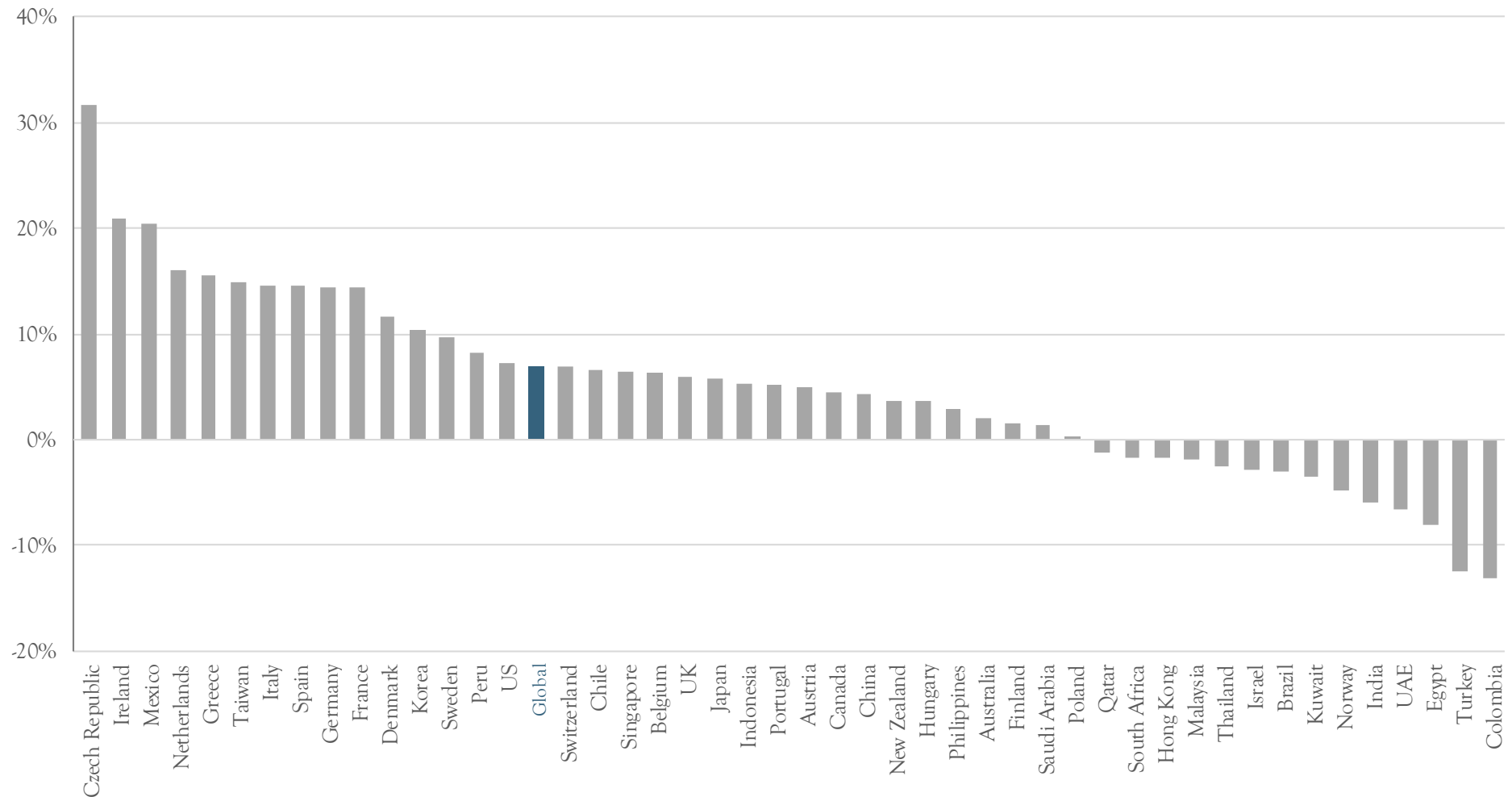
Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Growth	4.00	-11.87	5.65	-0.79	3.18
Large Cap	3.96	-10.70	7.83	-0.91	2.00
Value	3.91	-9.44	10.04	-1.15	0.69
Small Cap	3.87	-10.99	20.68	1.80	3.18

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 2023, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

Country Returns

First quarter 2023 index returns



Past performance is no guarantee of future results.

Country returns are the country component indices of the MSCI All Country World IMI Index for all countries except the United States, where the Russell 3000 Index is used instead. Global is the return of the MSCI All Country World IMI Index. MSCI index returns are net dividend. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. Frank Russell Company is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. MSCI data © MSCI 2023, all rights reserved.

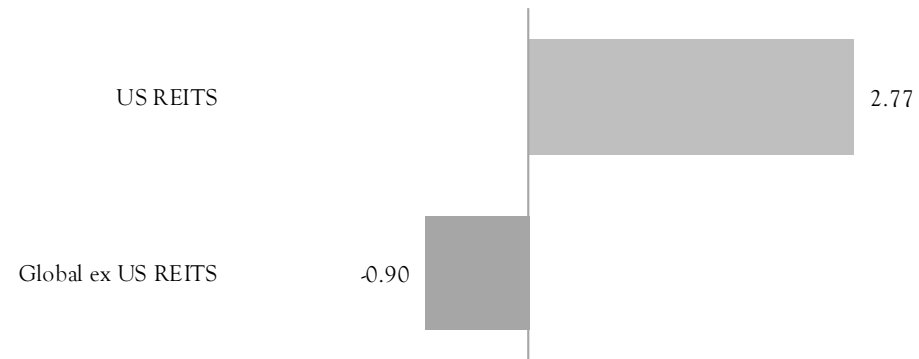


Real Estate Investment Trusts (REITs)

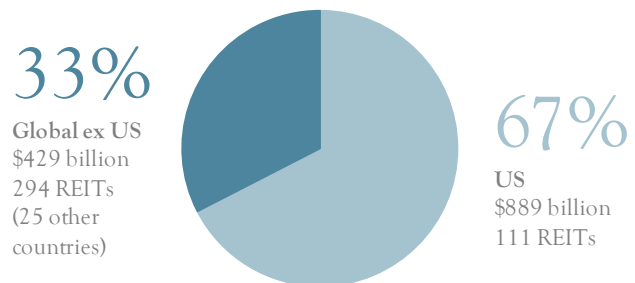
First quarter 2023 index returns

US real estate investment trusts outperformed 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
US REITs	2.77	-20.98	11.32	4.66	5.31
Global ex US REITs	-0.90	-20.93	4.83	-2.06	0.79

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 © 2023 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Commodities

First quarter 2023 index returns



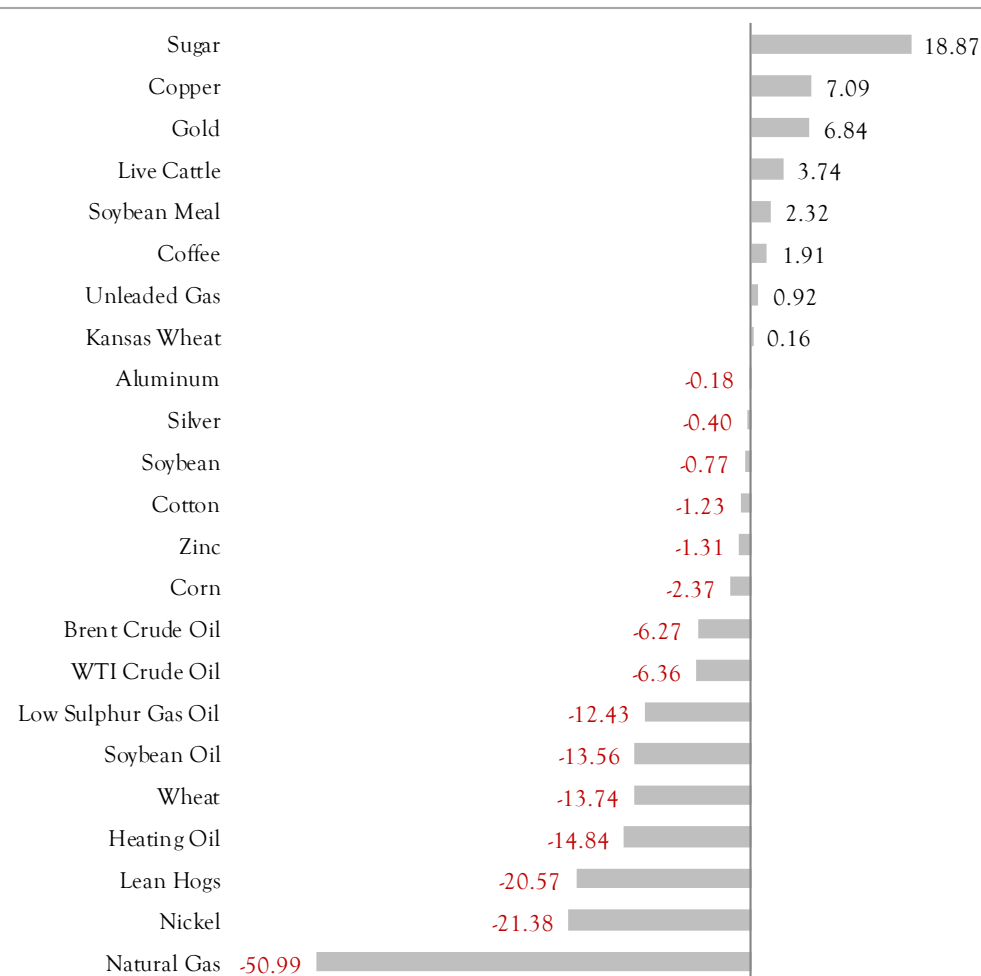
The Bloomberg Commodity Total Return Index returned -5.36% for the first quarter of 2023.

Natural Gas and Nickel were the worst performers, returning -50.99% and -21.38% during the quarter, respectively. Sugar and Copper were the best performers, returning +18.87% and +7.09% during the quarter, respectively.

Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Commodities	-5.36	-12.49	20.82	5.36	-1.72

Ranked Returns (%)



Past performance is not a guarantee of future results. Index is not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Commodities returns represent the return of the Bloomberg Commodity Total Return Index. Individual commodities are sub-index values of the Bloomberg Commodity Total Return Index. Data provided by Bloomberg.

Fixed Income

First quarter 2023 index returns



Within the US Treasury market during the first quarter of 2023, interest rates generally increased in the ultrashort-term segment and decreased in the short- to long-term segment.

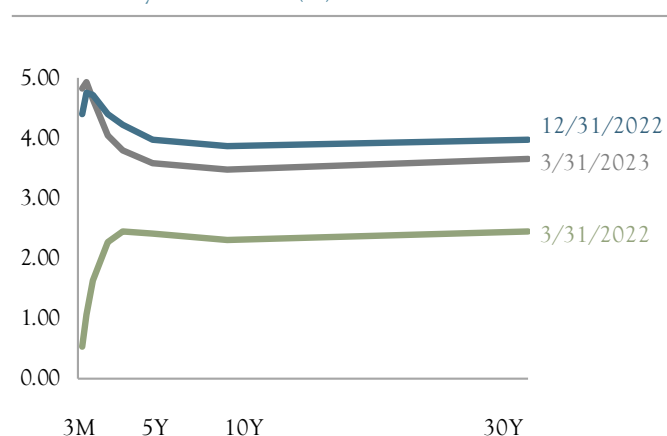
On the short end of the yield curve, the 1-Month US Treasury Bill yield increased 62 basis points (bps) to 4.74%, while the 1-Year US Treasury Bill yield decreased 9 bps to 4.64%. The yield on the 2-Year US Treasury Note decreased 35 bps to 4.06%.

The yield on the 5-Year US Treasury Note decreased 39 bps to 3.60%. The yield on the 10-Year US Treasury Note decreased 40 bps to 3.48%. The yield on the 30-Year US Treasury Bond decreased 30 bps to 3.67%.

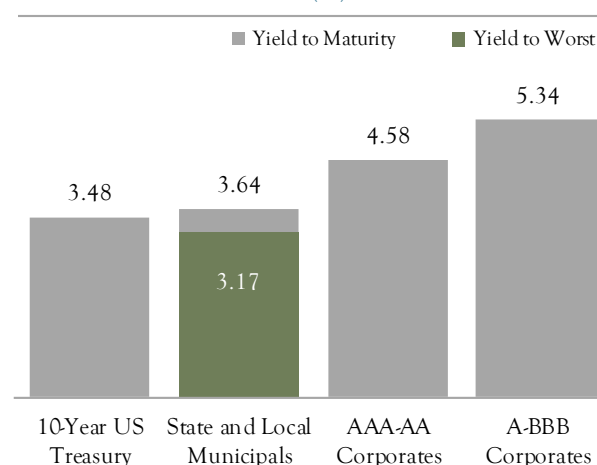
In terms of total returns, short-term US treasury bonds returned +1.87% while intermediate-term US treasury bonds returned +2.27%. Short-term corporate bonds returned +1.68% and intermediate-term corporate bonds returned +2.50%.¹

The total returns for short- and intermediate-term municipal bonds were +1.37% and +2.35%, respectively. Within the municipal fixed income market, general obligation bonds returned +2.59% while revenue bonds returned +2.96%.²

US Treasury Yield Curve (%)



Bond Yield Across Issuers (%)



Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Bloomberg U.S. Government Bond Index Long	6.16	-15.94	-11.25	-0.36	1.44
Bloomberg U.S. High Yield Corporate Bond Index	3.57	-3.34	5.91	3.21	4.10
Bloomberg U.S. TIPS Index	3.34	-6.06	1.75	2.94	1.49
Bloomberg U.S. Aggregate Bond Index	2.96	-4.78	-2.77	0.91	1.36
Bloomberg Municipal Bond Index	2.78	0.26	0.35	2.03	2.38
FTSE World Government Bond Index 1-5 Years	2.08	-3.38	-1.99	-1.06	-0.71
FTSE World Government Bond Index 1-5 Years (hedged to USD)	1.81	-0.40	-0.89	1.06	1.14
ICE BofA 1-Year US Treasury Note Index	1.25	1.02	0.08	1.29	0.85
ICE BofA US 3-Month Treasury Bill Index	1.07	2.50	0.89	1.41	0.87

1. Bloomberg US Treasury and US Corporate Bond Indices.

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 longterm bonds, bills, inflation, and fixed income factor data © Stocks, Bonds, Bills, and Inflation (SBBBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefeld). FTSE fixed income indices © 2023 FTSE Fixed Income LLC, all rights reserved. ICE BofA index data © 2023 ICE Data Indices, LLC. S&P data © 2023 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Bloomberg data provided by Bloomberg.



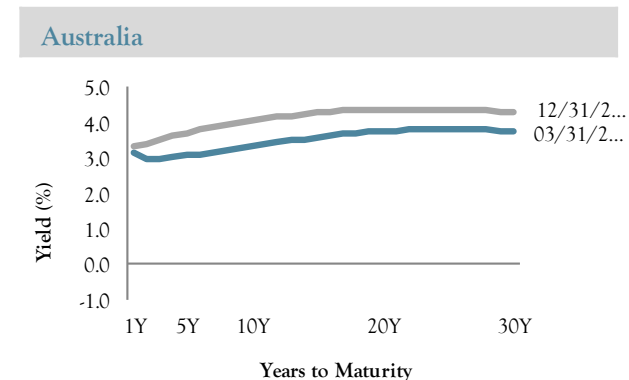
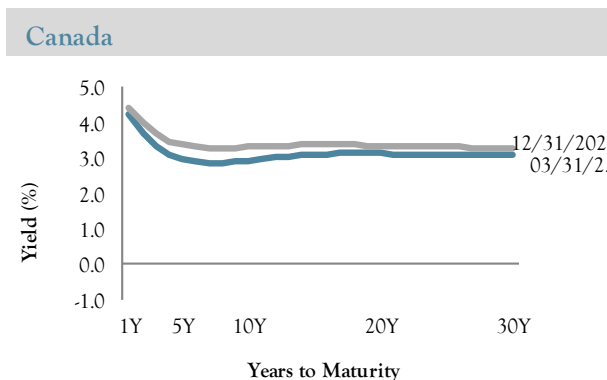
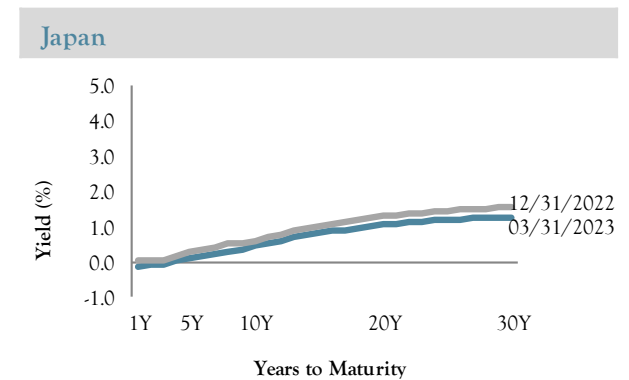
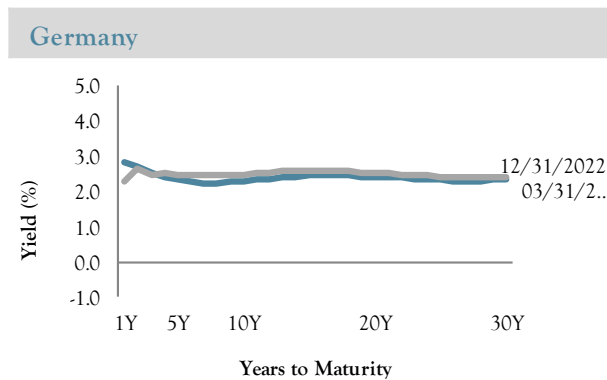
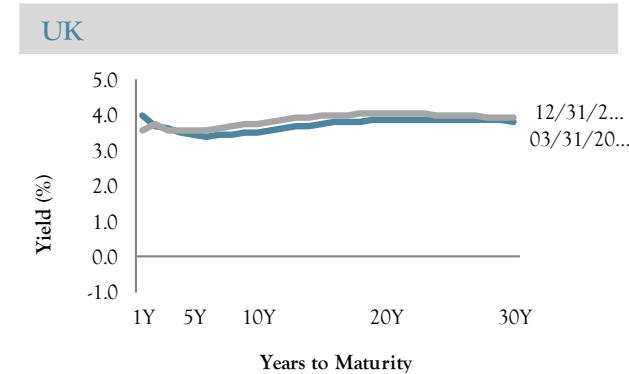
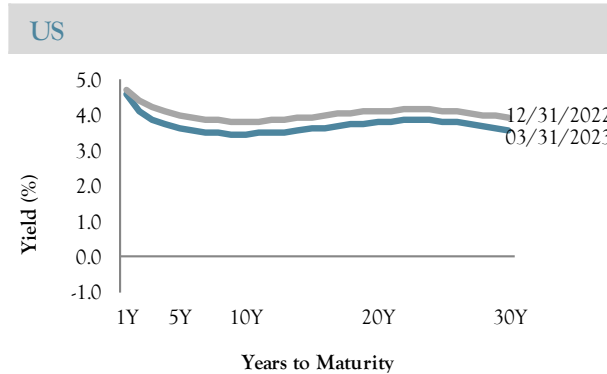
Global Fixed Income

First quarter 2023 yield curves

Except for ultrashort-term government bonds in the German and UK markets, interest rates generally decreased within global developed markets for the quarter.

Realized term premiums were positive in global developed markets.

In Japan, ultrashort-term nominal interest rates were negative. In Germany, the UK, Canada, and Australia the short-term segment of the yield curve was inverted.



Changes in Yields (bps) since 12/31/2022

	1Y	5Y	10Y	20Y	30Y
US	-11.4	-37.9	-34.8	-31.3	-32.2
UK	44.6	-13.5	-24.6	-17.0	-8.8
Germany	56.9	-15.6	-19.5	-11.5	-8.0
Japan	-13.0	-15.9	-15.5	-25.7	-27.0
Canada	-20.3	-39.9	-38.8	-22.7	-22.5
Australia	-19.4	-65.3	-73.3	-61.7	-54.6



When Headlines Worry You, Bank on Investment Principles

First quarter 2023

Dimensional Fund Advisors

On Friday, March 10, regulators took control of Silicon Valley Bank as a run on the bank unfolded. Two days later, regulators took control of a second lender, Signature Bank. With increasing anxiety, many investors are eyeing their portfolios for exposure to these and other regional banks.

Rather than rummaging through your portfolio looking for trouble when headlines make you anxious, turn instead to your investment plan. Hopefully, your plan is designed with your long-term goals in mind and is based on principles that you can stick with, given your personal risk tolerances. While every investor's plan is a bit different, ignoring headlines and focusing on the following time-tested principles may help you avoid making shortsighted missteps.

1. Uncertainty Is Unavoidable

Remember that uncertainty is nothing new and investing comes with risks. Consider the events of the last three years alone: a global pandemic, the Russian invasion of Ukraine, spiking inflation, and ongoing recession fears. In other words, it may have seemed as if there were plenty of reasons to panic. Despite these concerns, for the three years ending February 28, 2023, the Russell 3000 Index (a broad market-capitalization-weighted index of public US companies) returned an annualized 11.79%, slightly outpacing its average annualized returns of 11.65% since inception in January 1979. The past three years certainly make a case for

weathering short-term ups and downs and sticking with your plan.

2. Market Timing Is Futile

Inevitably, when events turn bleak and headlines warn of worse to come, some investors' thoughts turn to market timing. The idea of using short-term strategies to avoid near-term pain without missing out on long-term gains is seductive, but research repeatedly demonstrates that timing strategies are not effective. The impact of miscalculating your timing strategy can far outweigh the perceived benefits.

3. "Diversification Is Your Buddy"

Nobel laureate Merton Miller famously used to say, "Diversification is your buddy." Thanks to financial innovations over the last century in the form of mutual funds, and later ETFs, most investors can access broadly diversified investment strategies at very low costs. While not all risks—including a systemic risk such as an economic recession—can be diversified away (see Principle 1 above), diversification is still an incredibly effective tool for reducing many risks investors face.



When Headlines Worry You, Bank on Investment Principles

(continued from page 15)

In particular, diversification can reduce the potential pain caused by the poor performance of a single company, industry, or country.¹ As of February 28, Silicon Valley Bank (SIVB) represented just 0.04% of the Russell 3000, while regional banks represented approximately 1.70%.² For investors with globally diversified portfolios, exposure to SIVB and other US-based regional banks likely was significantly smaller. If buddying up with diversification is part of your investment plan, headline moments can help drive home the long-term benefits of your approach.

When the unexpected happens, many investors feel like they should be doing something with their portfolios. Often, headlines and pundits stoke these sentiments with predictions of more doom and gloom. For the long-term investor, however, planning for what can happen is far more powerful than trying to predict what will happen.

1. Consider that a study of single stock performance in the US from 1927 to 2020 illustrated that the survival of any given stock is far from guaranteed. The study found that on average for 20-year rolling periods, about 18% of US stocks went through a “bad” delisting. The authors note that delisting events can be “good” or “bad” depending on the experience for investors. For example, a stock delisting due to a merger would be a good delist, as the shareholders of that stock would be compensated during the acquisition. On the other hand, a firm that delists due to its deteriorating financial condition would be a bad delist since it is an adverse outcome for investors. Given these results, there is a good case to avoid concentrated exposure to a single company. Source: “Singled Out: Historical Performance of Individual Stocks” (Dimensional Fund Advisors, 2022).

2. Regional banks weight reflects the weight of the “Regional Banks” GICS Sub-Industry. GICS was developed by and is the exclusive property of MSCI and S&P Dow Jones Indices LLC, a division of S&P Global.

Investments involve risks. The investment return and principal value of an investment may fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original value. Past performance is not a guarantee of future results. There is no guarantee strategies will be successful. Diversification neither assures a profit nor guarantees against loss in a declining market. Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

All returns are in USD. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.

The information in this material is intended for the recipient's background information and use only. It is provided in good faith and without any warranty or representation as to accuracy or completeness. Information and opinions presented in this material have been obtained or derived from sources believed by Dimensional to be reliable, and Dimensional has reasonable grounds to believe that all factual information herein is true as at the date of this material. It does not constitute investment advice, a 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. Before acting on any information in this document, you should consider whether it is appropriate for your particular circumstances and, if appropriate, seek professional advice. It is the responsibility of any persons wishing to make a purchase to inform themselves of and observe all applicable laws and regulations. Unauthorized reproduction or transmission of this material is strictly prohibited. Dimensional accepts no responsibility for loss arising from the use of the information contained herein. This material is not directed at any person in any jurisdiction where the availability of this material is prohibited or would subject Dimensional or its products or services to any registration, licensing, or other such legal requirements within the jurisdiction. “Dimensional” refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. The separate 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 I (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.

Investment products: • Not FDIC Insured • Not Bank Guaranteed • May Lose Value • Dimensional Fund Advisors does not have any bank affiliates.