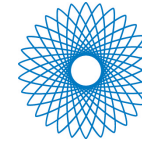


Gradient Capital
ADVISORS, LLC

Q4

Quarterly Market Review
Fourth Quarter 2023



Quarterly Market Review

Fourth 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

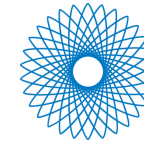
Real Estate Investment Trusts (REITs)

Commodities

Fixed Income

Global Fixed Income

Quarterly Topic: Country Debt and Stock Returns

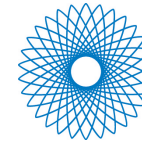


Quarterly Market Summary

Index returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
Q4 2023	STOCKS				BONDS	
	12.07%	10.51%	7.86%	15.47%	6.82%	5.36%
						
Since Jan. 2001						
Average Quarterly Return	2.3%	1.6%	2.5%	2.3%	0.9%	0.9%
Best Quarter	22.0%	25.9%	34.7%	32.3%	6.8%	5.4%
	2020 Q2	2009 Q2	2009 Q2	2009 Q3	2023 Q4	2023 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 © 2024 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 2024, all rights reserved. Bloomberg data provided by Bloomberg.

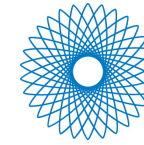


Long-Term Market Summary

Index returns as of December 31, 2023

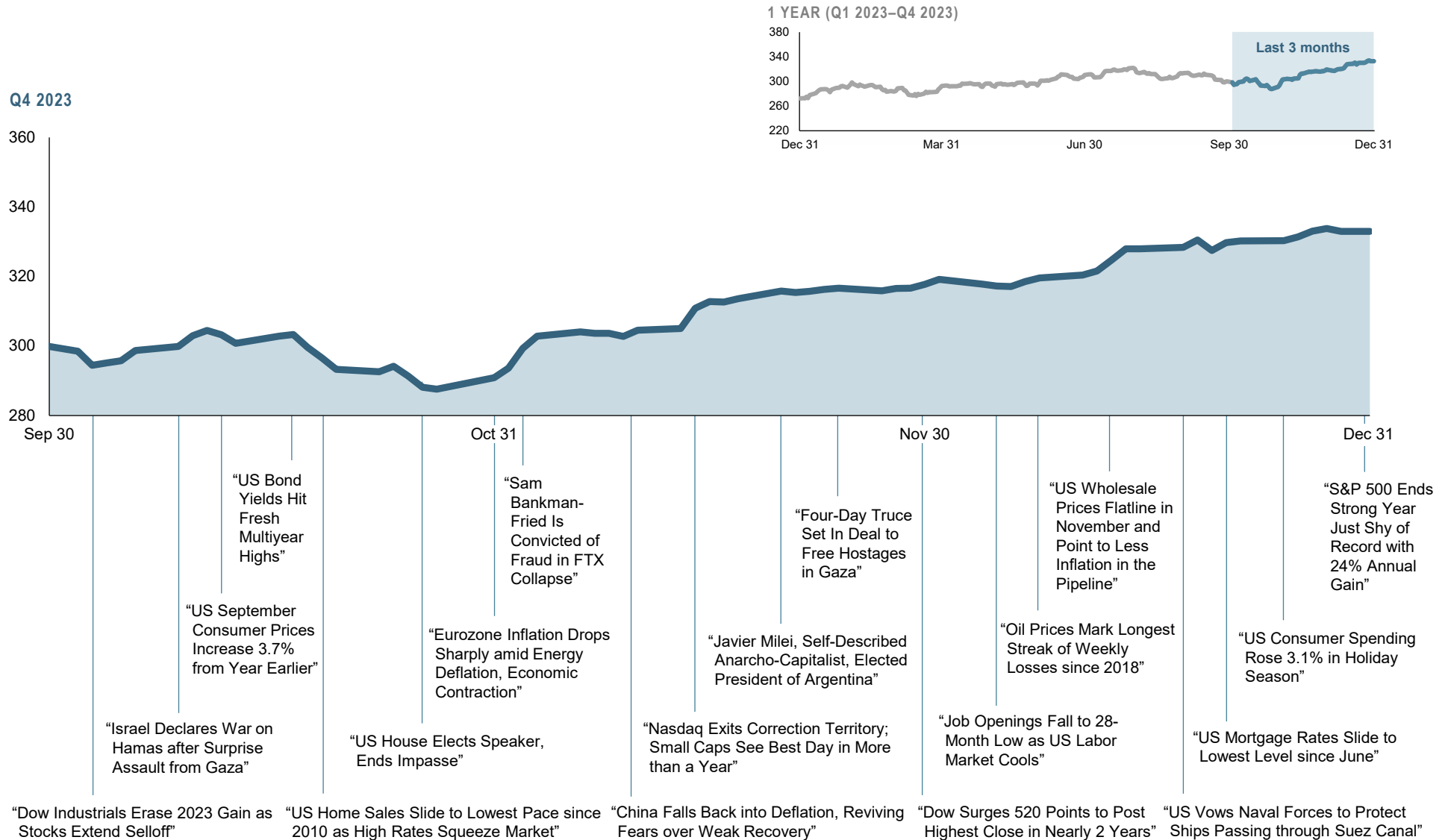
	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
1 Year	STOCKS				BONDS	
	25.96%	17.94%	9.83%	10.23%	5.53%	8.32%
5 Years						
	15.16%	8.45%	3.68%	4.16%	1.10%	1.50%
10 Years						
	11.48%	4.32%	2.66%	4.72%	1.81%	2.80%

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World Stock Market Performance

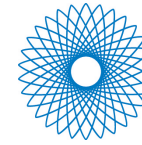
MSCI All Country World Index with selected headlines from Q4 2023



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.

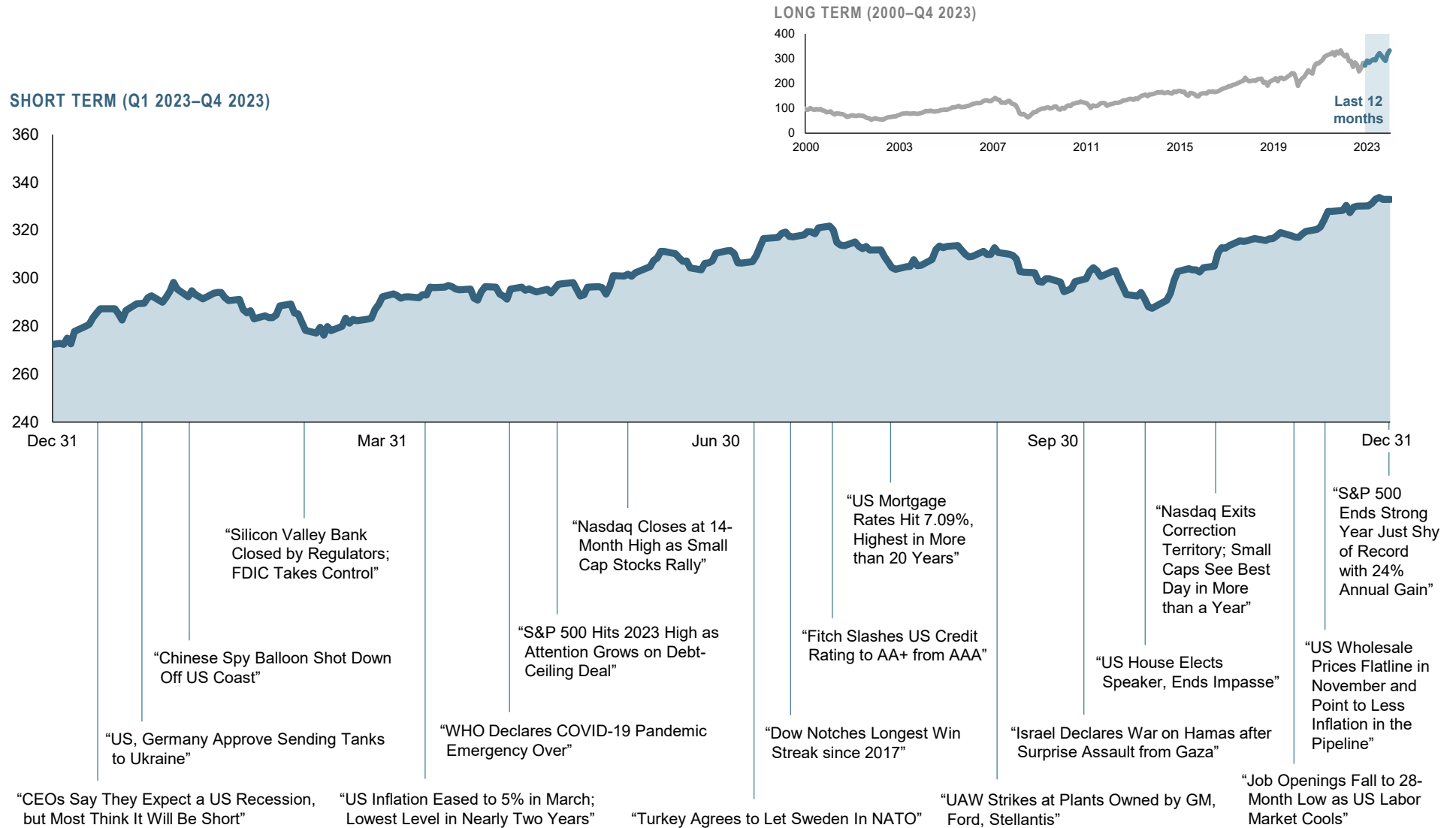
Graph Source: MSCI ACWI Index (net dividends). MSCI data © MSCI 2024, all rights reserved. Index level based at 100 starting January 2000.

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.**



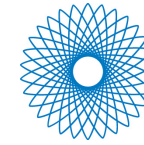
World Stock Market Performance

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



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 2024, 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

Fourth quarter 2023 index returns

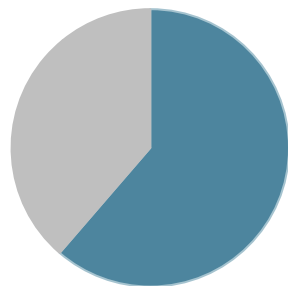
The US equity market posted positive returns for the quarter and outperformed both non-US developed and emerging markets.

Value underperformed growth within large caps and outperformed within small caps.

Small caps outperformed large caps.

REIT indices outperformed equity market indices.

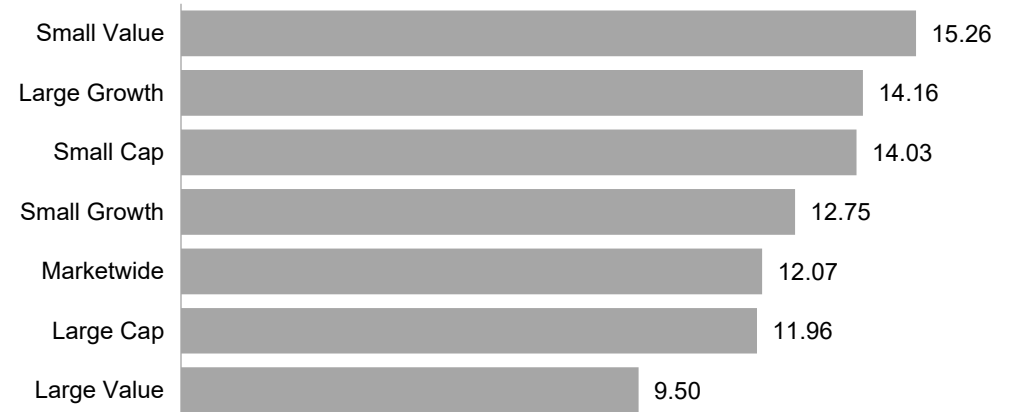
World Market Capitalization—US



61%

US Market
\$46.4 trillion

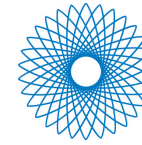
Ranked Returns (%)



Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Small Value	15.26	14.65	7.94	10.00	6.76
Large Growth	14.16	42.68	8.86	19.50	14.86
Small Cap	14.03	16.93	2.22	9.97	7.16
Small Growth	12.75	18.66	-3.50	9.22	7.16
Marketwide	12.07	25.96	8.54	15.16	11.48
Large Cap	11.96	26.53	8.97	15.52	11.80
Large Value	9.50	11.46	8.86	10.91	8.40

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. MSCI data © MSCI 2024, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.



International Developed Stocks

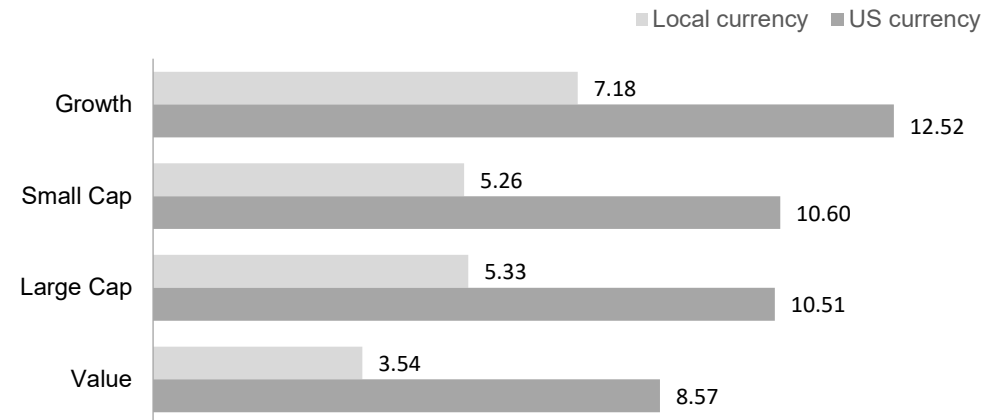
Fourth quarter 2023 index returns

Developed markets outside of the US posted positive returns for the quarter and underperformed the US market, but outperformed emerging markets.

Value underperformed growth.

Small caps outperformed large caps.

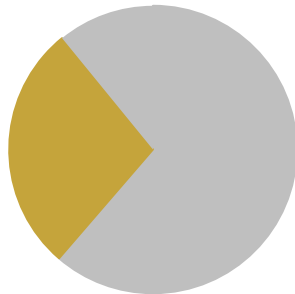
Ranked Returns (%)



World Market Capitalization—International Developed

28%

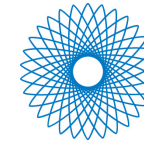
International
Developed Market
\$21.0 trillion



Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Growth	12.52	17.45	0.44	8.94	5.08
Small Cap	10.60	12.62	-0.20	7.05	4.63
Large Cap	10.51	17.94	4.42	8.45	4.32
Value	8.57	18.48	8.19	7.48	3.29

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 2024, 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

Fourth quarter 2023 index returns

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

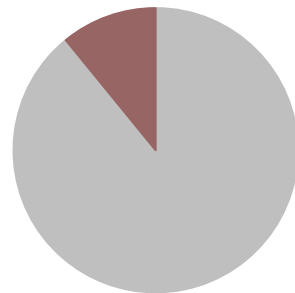
Value outperformed growth.

Small caps outperformed large caps.

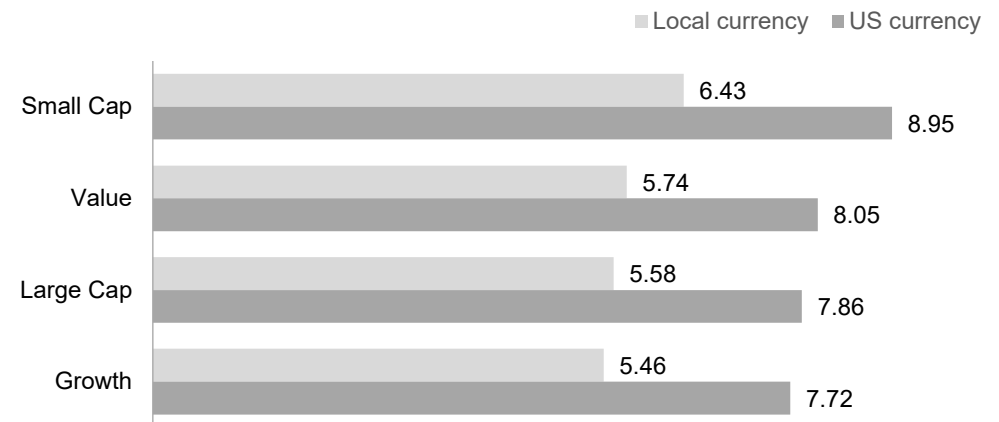
World Market Capitalization—Emerging Markets

11%

Emerging Markets
\$8.2 trillion



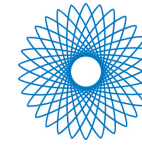
Ranked Returns (%)



Period Returns (%)

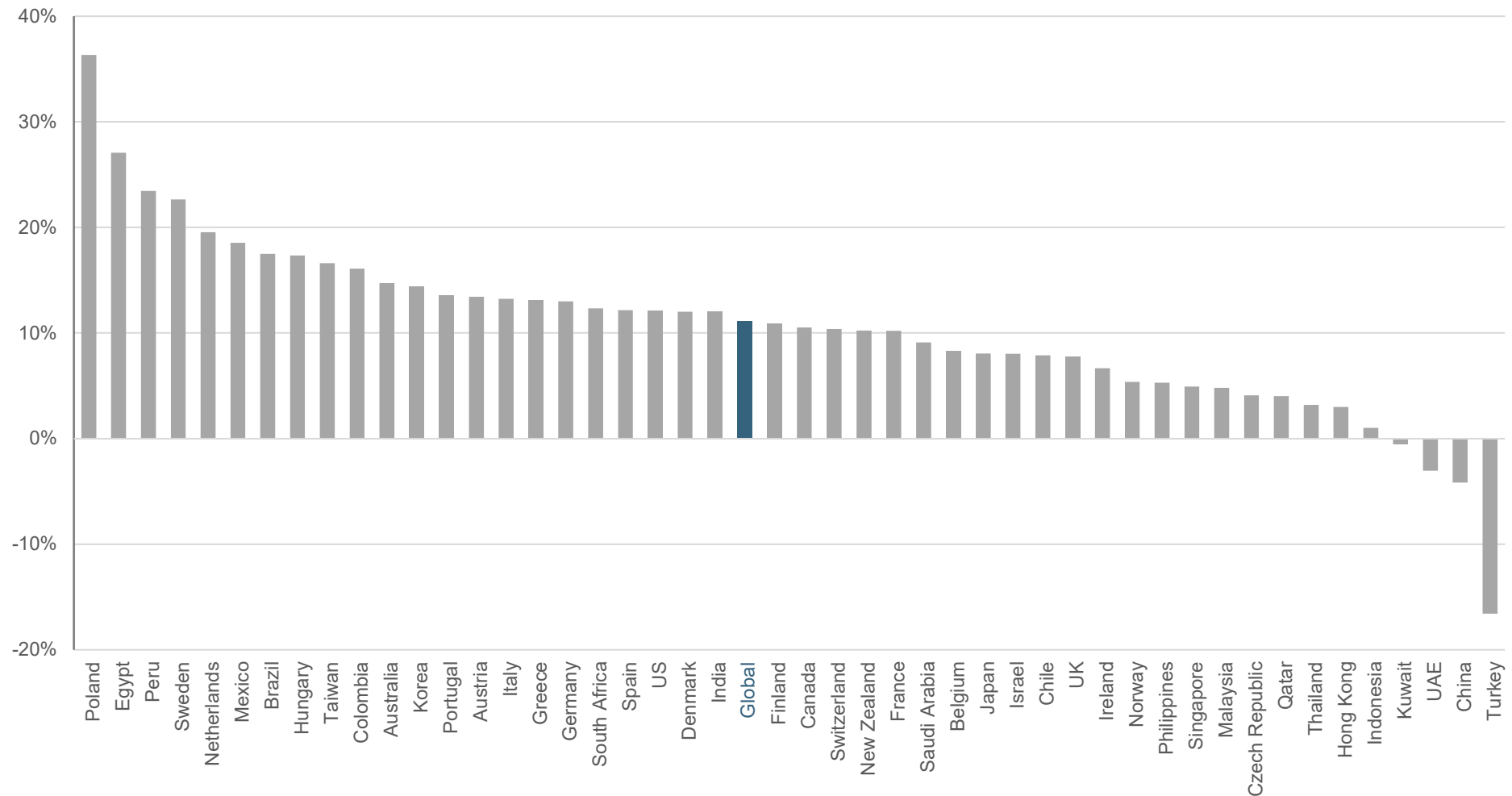
Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Small Cap	8.95	23.92	6.45	9.92	5.34
Value	8.05	14.21	-0.01	3.37	1.94
Large Cap	7.86	9.83	-5.08	3.68	2.66
Growth	7.72	5.83	-9.67	3.90	3.28

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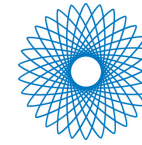
Country Returns

Fourth 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 2024, all rights reserved.



Real Estate Investment Trusts (REITs)

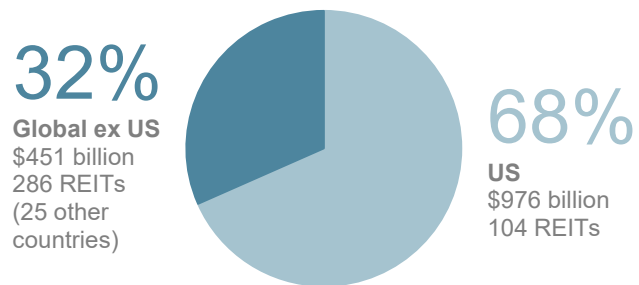
Fourth quarter 2023 index returns

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

Ranked Returns (%)



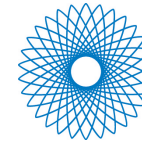
Total Value of REIT Stocks



Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
US REITS	16.35	13.96	7.18	6.12	7.00
Global ex US REITS	14.98	5.59	-2.69	0.48	1.92

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 © 2024 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.



Commodities

Fourth quarter 2023 index returns

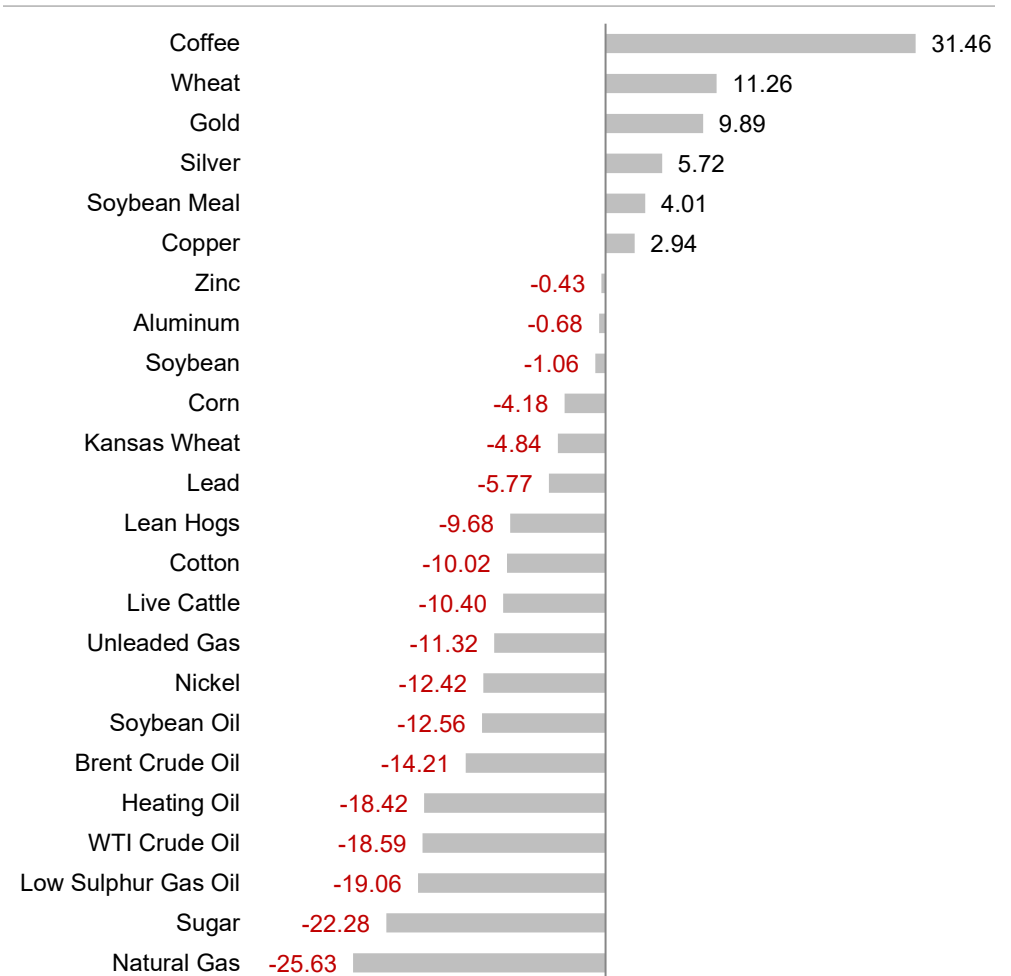
The Bloomberg Commodity Total Return Index returned -4.63% for the fourth quarter of 2023.

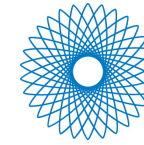
Natural Gas and Sugar were the worst performers, returning -25.63% and -22.28% during the quarter, respectively. Coffee and Wheat were the best performers, returning +31.46% and +11.26% during the quarter, respectively.

Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Commodities	-4.63	-7.91	10.76	7.23	-1.11

Ranked Returns (%)





Fixed Income

Fourth quarter 2023 index returns

Interest rates generally decreased in the US Treasury market for the quarter.

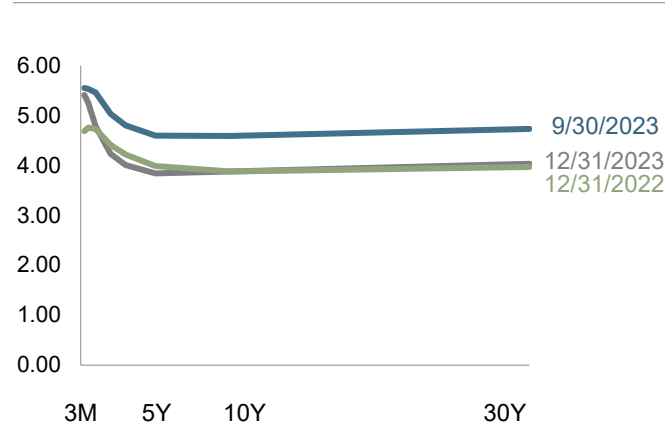
On the short end of the yield curve, the 1-Month US Treasury Bill yield increased 5 basis points (bps) to 5.60%, while the 1-Year US Treasury Bill yield decreased 67 bps to 4.79%. The yield on the 2-Year US Treasury Note decreased 80 bps to 4.23%.

The yield on the 5-Year US Treasury Note decreased 76 bps to 3.84%. The yield on the 10-Year US Treasury Note decreased 71 bps to 3.88%. The yield on the 30-Year US Treasury Bond decreased 70 bps to 4.03%.

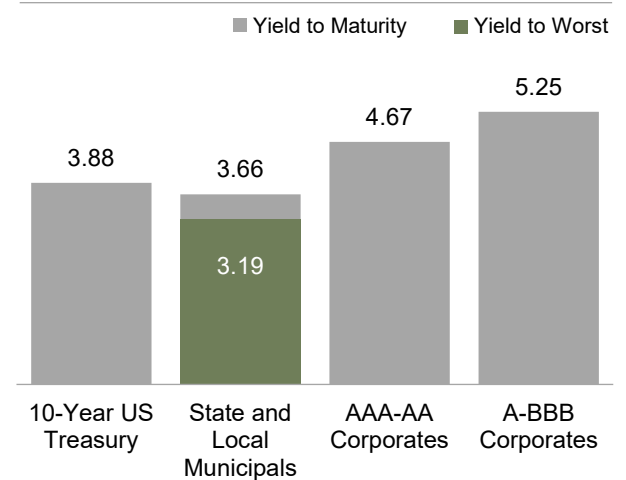
In terms of total returns, short-term US treasury bonds returned +3.21% while intermediate-term US treasury bonds returned +3.99%. Short-term corporate bonds returned +4.12% and intermediate-term corporate bonds returned +5.86%.¹

The total returns for short- and intermediate-term municipal bonds were +3.53% and +6.53%, respectively. Within the municipal fixed income market, general obligation bonds returned +7.79% while revenue bonds returned +8.15%.²

US Treasury Yield Curve (%)



Bond Yield Across Issuers (%)



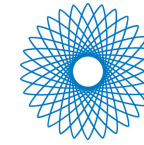
Period Returns (%)

Asset Class	QTR	1 Year	Annualized		
			3 Years	5 Years	10 Years
Bloomberg U.S. Government Bond Index Long	12.69	3.11	-11.35	-1.23	2.27
Bloomberg Municipal Bond Index	7.89	6.40	-0.40	2.25	3.03
Bloomberg U.S. High Yield Corporate Bond Index	7.16	13.44	1.98	5.37	4.60
Bloomberg U.S. Aggregate Bond Index	6.82	5.53	-3.31	1.10	1.81
FTSE World Government Bond Index 1-5 Years	4.95	4.79	-2.95	-0.07	-0.44
Bloomberg U.S. TIPS Index	4.71	3.90	-1.00	3.15	2.42
FTSE World Government Bond Index 1-5 Years (hedged to USD)	3.09	5.26	-0.09	1.34	1.44
ICE BofA 1-Year US Treasury Note Index	1.79	4.74	1.18	1.66	1.18
ICE BofA US 3-Month Treasury Bill Index	1.37	5.01	2.15	1.88	1.25

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 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 © 2024 FTSE Fixed Income LLC, all rights reserved. ICE BofA index data © 2024 ICE Data Indices, LLC. S&P data © 2024 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Bloomberg data provided by Bloomberg.



Global Fixed Income

Fourth quarter 2023 yield curves

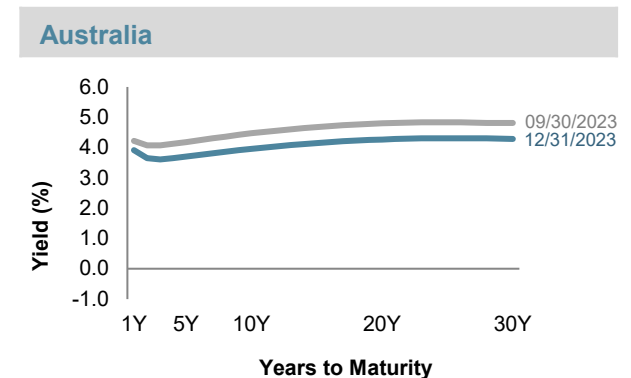
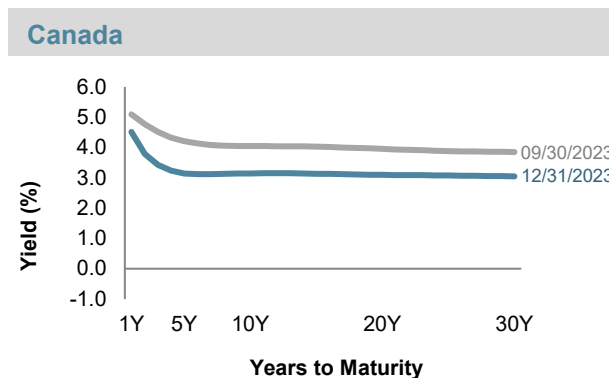
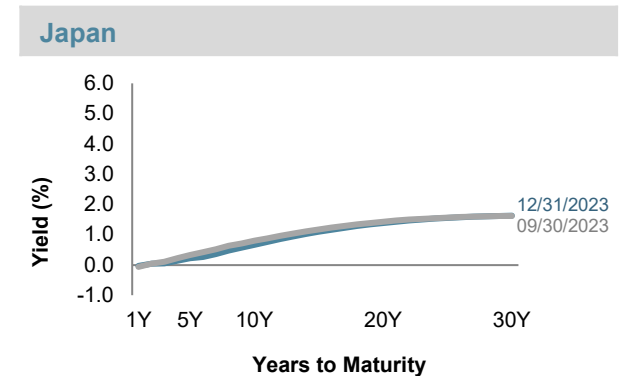
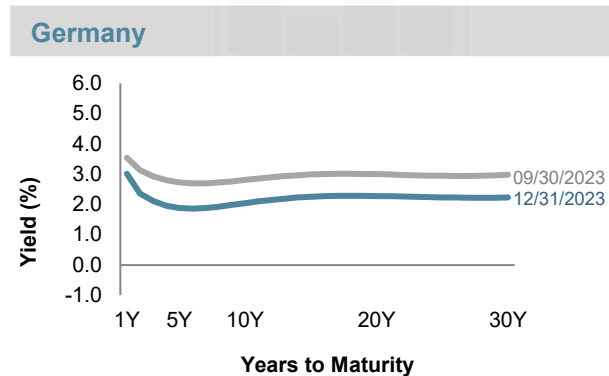
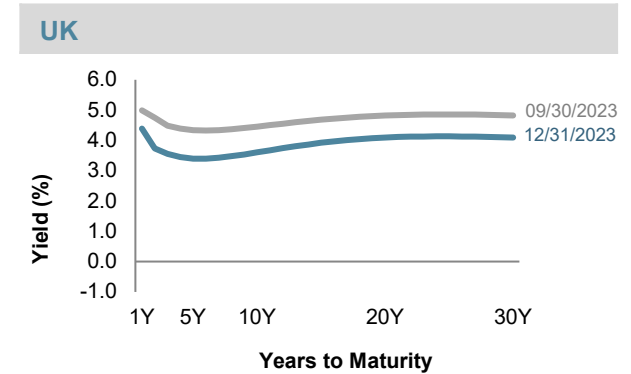
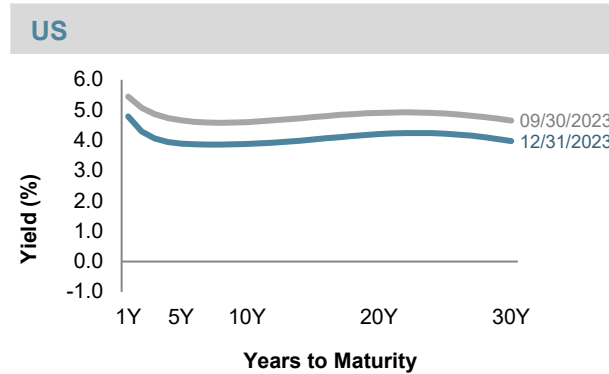
Interest rates generally decreased across global developed markets for the quarter.

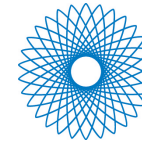
Realized term premiums were generally positive across global developed markets, as longer-term bonds generally outperformed shorter-term bonds.

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

Changes in Yields (bps) since 09/30/2023

	1Y	5Y	10Y	20Y	30Y
US	-65.2	-76.9	-72.2	-70.3	-67.8
UK	-59.7	-93.9	-84.8	-72.8	-73.1
Germany	-52.7	-84.6	-76.3	-72.1	-74.9
Japan	3.9	-10.3	-13.3	-4.1	0.8
Canada	-58.0	-106.2	-90.0	-85.7	-80.5
Australia	-30.6	-48.0	-51.1	-53.2	-52.9





Country Debt and Stock Returns

Fourth quarter 2023

Wes Crill, PhD, Senior Investment Director and Vice President, Dimensional Fund Advisors

US government debt reached 121% of the value of the country's gross domestic product (GDP) last year.¹ Many investors have expressed concern over the impact that servicing this level of debt could have on the stock market. But the historical data show little relation between the two. Since 1975, there have been 153 observations of a country exceeding 100% debt/GDP for a year. Stocks were up for that country/year in 104 of the 153, or about two-thirds of the time.

There are numerous examples of countries carrying high debt for extended periods. Italy and Belgium have both been over 100% debt/GDP in more than 30 of the past 48 years. Meanwhile, their stock markets have returned an average of 10.8% and 12.0% per year, respectively. Japan has been over 200% since 2010 while its market averaged close to 6% per year over that period.

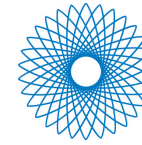
Stock markets set prices to the point where investors have a positive expected return given current information. Country debt is a slow-moving variable, so it's sensible that current prices reflect expectations about the effect of government debt. And it's unsurprising to see stock performance has generally been positive even amid high-debt conditions.

INDEBTED

General government debt, percent of GDP vs. stock market return for developed markets, 1975–2022



1. "General Government Debt," Global Debt Database, International Monetary Fund, September 2023. See following page for important disclosure.



Country Debt and Stock Returns

(continued from page 15)

Past performance is no guarantee of future results.

Debt figures are based on General Government Debt data from the Global Debt Database published by the International Monetary Fund. MSCI index returns are net dividends, in USD. MSCI data © MSCI 2024, all rights reserved.

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