

Q2

Quarterly Market Review

Second Quarter 2023



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Commentary From Our Investment Team

Second Quarter 2023

Recessions Are Hard To Call, But We Know What Comes After

In the movie *Being There*, Peter Sellers plays a simple-minded gardener called Chauncey who is accidentally swept up into a circle of high influence in Washington, D.C. Everyone he meets mistakes his blank expression for an intent interest in what they have to say. And his simple statements about the basics of gardening are taken as deep wisdom.

When the President asks Chauncey his advice about the economy, Seller's character answers, "In the garden growth has its seasons. First comes spring and summer, but then we have fall and winter. And then we get spring and summer again."

The President replies, "That is one of the most refreshing and optimistic statements I've heard in a very long time." (1)

It's an amusing scene, yet like all great comedy is at least 95% true. When we look back at the market's performance in the second quarter and wonder about what might lie ahead, Chauncey's line about the seasons following one another makes quite a bit of sense.

After 2022's economic winter, investors have spent the first half of 2023 looking for any signs of spring. High inflation, repeated interest rate hikes, labor shortages, and other factors have created an environment that's been hostile to growth. Yet late in the quarter we are beginning to see signs that these economic headwinds are beginning to die down.

The financial pundits have been filling their allotted airtime with daily speculation about which way the economy is headed. Some have been cautiously optimistic. Some have been pessimistic. But as usual, the doomsayers have a much more riveting story and often a book to sell and so more often get the headlines.

As much as we all want to know right now how the economy is doing and which way it is headed, official assessments by real economists take time. A

trove of diverse data must be analyzed and often the bellwethers we took for a fact a few months ago turn out to have been misleading.

Because of this lag time, we can never know if we are in a recession today. Take for example the economic downturn of 15 years ago. The official announcement that the economy was indeed in a recession came in December 2008—a year after the recession had actually started. By then stock prices had dropped more than 40%. And although that recession ended in May 2009, the announcement came 16 months later, by which time U.S. stocks had rebounded. (2)

However, even though we might not know the direction the economy is headed at any given moment, we *do* know that just as spring follows winter recoveries follow recessions.

Dimensional recently did a study of post-recession returns for the 75 year period beginning in 1947, the first year that U.S. gross domestic product data was calculated on a quarterly basis. (Note: there have been 12 official recessions during this period.) The analysts looked specifically at the 1-, 3-, and 5-year returns of the S&P 500 after the recession start dates.

They found that over this period the average 1-year return immediately following a recession was 6.4%. The 3-year average was 43.7%. And the 5-year was 70.5%.

As you might expect, the 1-year return is about half the average for all months of that period. But surprisingly, the 3-year return is 1% higher than the average. This is because after a downturn the market tends to enter a period of growth.

Chauncey from *Being There* was more right than he knew. The market is in many ways like a garden. Its growth is the result of innumerable complex processes, some of which are not fully understood.



Commentary From Our Investment Team

Second Quarter 2023

Recessions Are Hard To Call, But We Know What Comes After

Consider the massive amounts of information stored in a single bean seed. Once placed in dirt, it senses when to sprout. It knows how to collect water and nutrients from the soil. It directs its growth directly against the force of gravity, while angling its leaves for maximum sunlight. It lures in bees to pollinate its blossoms. And then it makes hundreds of copies of itself.

The good news is that you don't need a PhD in botany to grow a bean plant. You just poke a seed into some moist topsoil. A four year old can do it. And that's similar to investing in the market. You don't need to understand its mind-numbing complexities for it to work for you.

Of course a master gardener can help you maximize your bean yield. Or if you're impatient, warn you against digging up your seeds to see if they are sprouting. A trusted advisor can help you in similar ways with your investments.

Also like a garden, the market will have seasons where things aren't going to grow very well or maybe not at all. But these have always passed. And the prudent investor realizes that because he or she cannot predict when the market will enter a period of recovery, the only chance of benefiting from those unexpected big days is to have their money in the market.

In other words, you can miss out on the growing season when you don't have your seeds in the ground.

Sources:

1. <https://www.imdb.com/title/tt0078841/characters/nm0000634>
2. <http://elink.dimensional.com/m/1/62855187/02-b23156-ab54fdf6dcce49108472a6224b1dd78e/1/75/9b9c6736-3673-4677-b6df-b0f554dc1ed9>

Quarterly Market Review

Second 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: Let the Compounding Commence!



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 |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Q2 2023 | STOCKS | | | | BONDS | |
| | 8.39% | 3.03% | 0.90% | 0.71% | -0.84% | 0.73% |
| |  |  |  |  |  |  |
| Since Jan. 2001 | | | | | | |
| Average Quarterly Return | 2.3% | 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 June 30, 2023

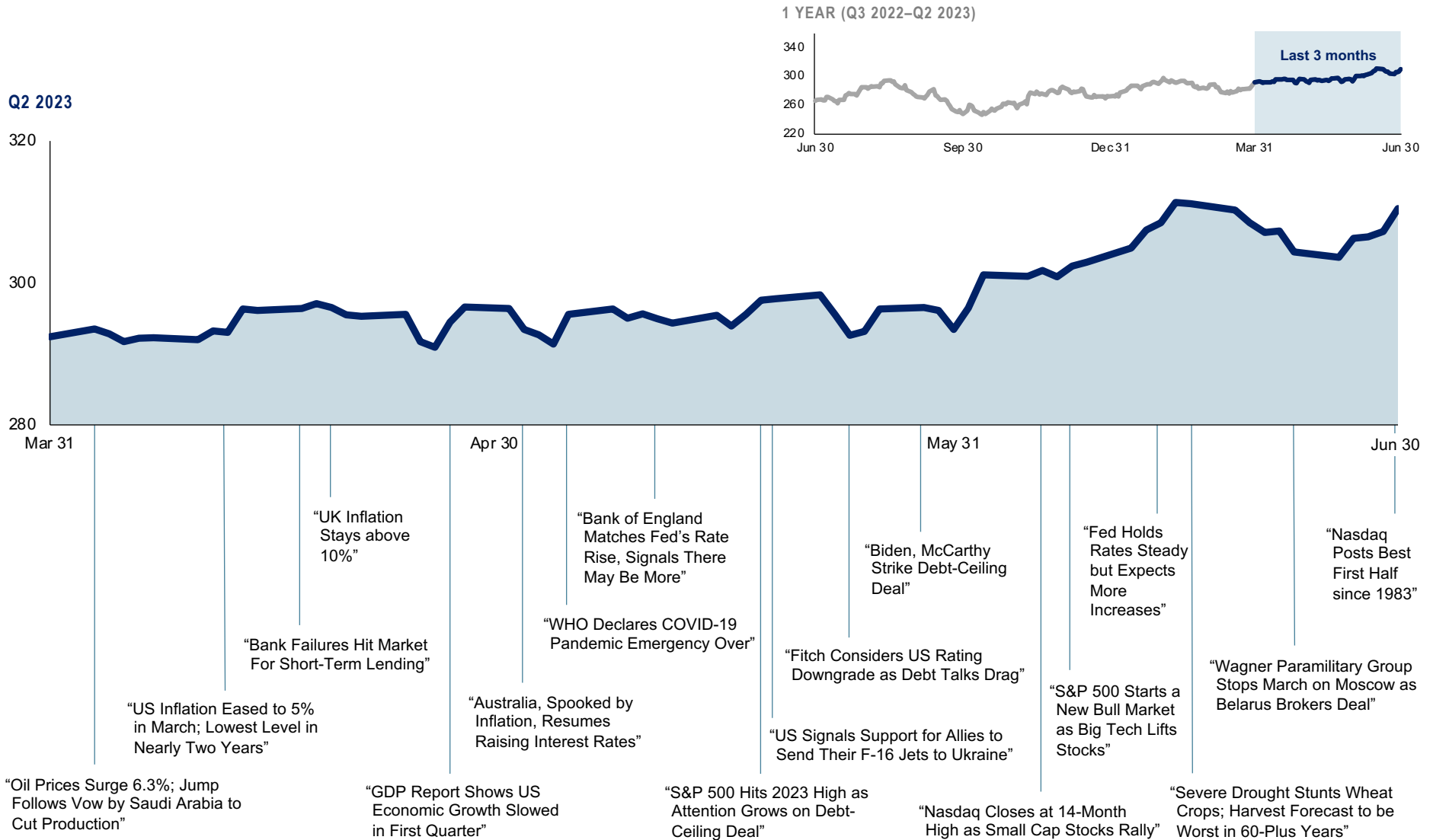
| | US Stock Market | International Developed Stocks | Emerging Markets Stocks | Global Real Estate | US Bond Market | Global Bond Market ex US |
|----------|-----------------|--------------------------------|-------------------------|--------------------|----------------|--------------------------|
| 1 Year | STOCKS | | | | BONDS | |
| | 18.95% | 17.41% | 1.75% | -3.02% | -0.94% | 1.51% |
| | | | | | | |
| 5 Years | | | | | | |
| | 11.39% | 4.58% | 0.93% | 1.35% | 0.77% | 0.95% |
| | | | | | | |
| 10 Years | | | | | | |
| | 12.34% | 5.40% | 2.95% | 3.80% | 1.52% | 2.48% |
| | | | | | | |

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World Stock Market Performance

MSCI All Country World Index with selected headlines from Q2 2023



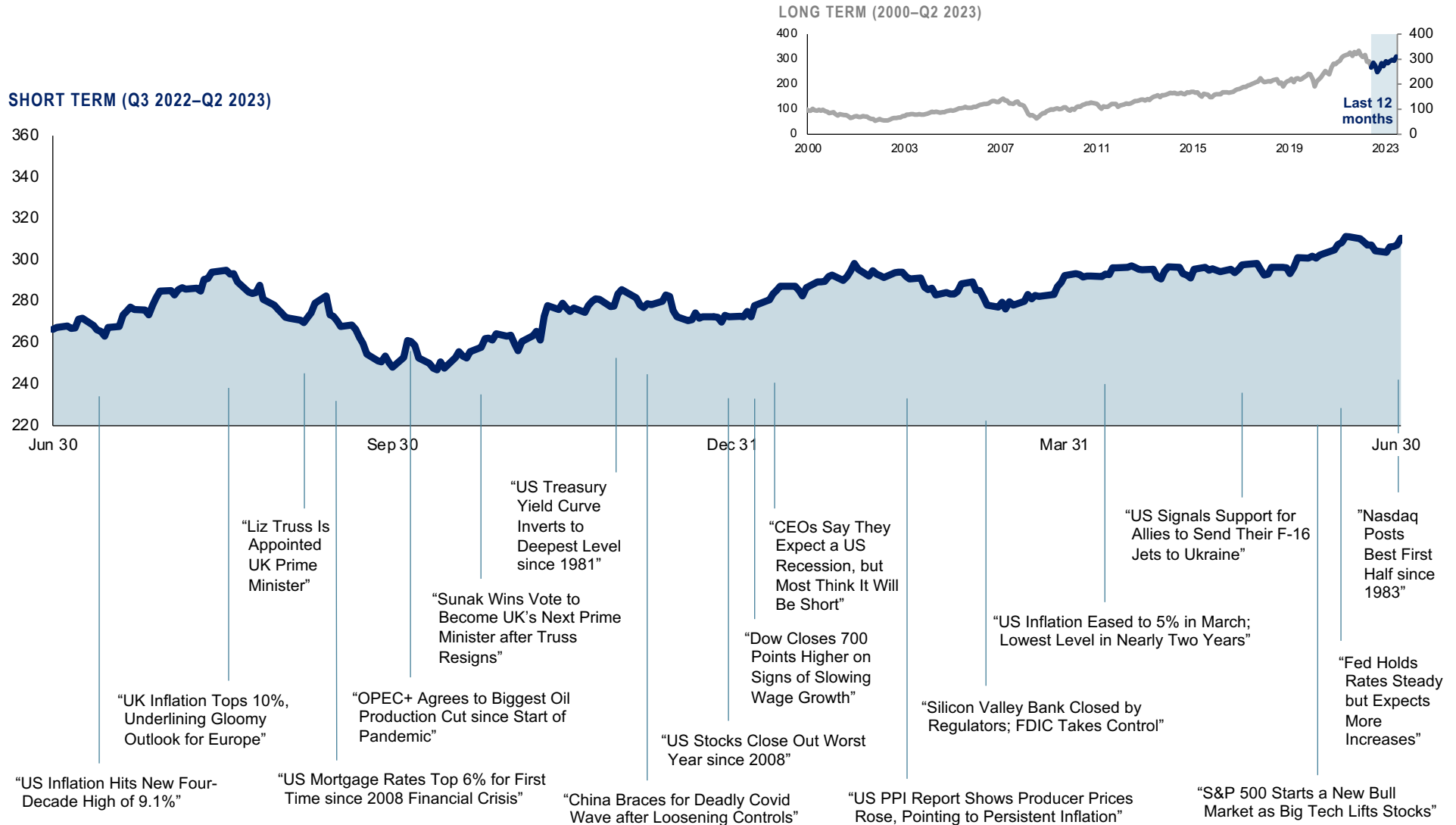
These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

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



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

Second quarter 2023 index returns

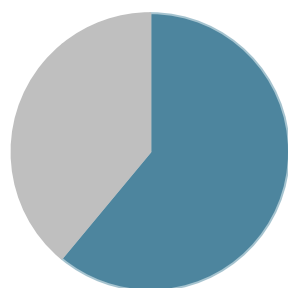
The US equity market posted positive returns for the quarter and outperformed both non-US developed and emerging markets.

Value underperformed growth.

Small caps underperformed large caps.

REIT indices underperformed equity market indices.

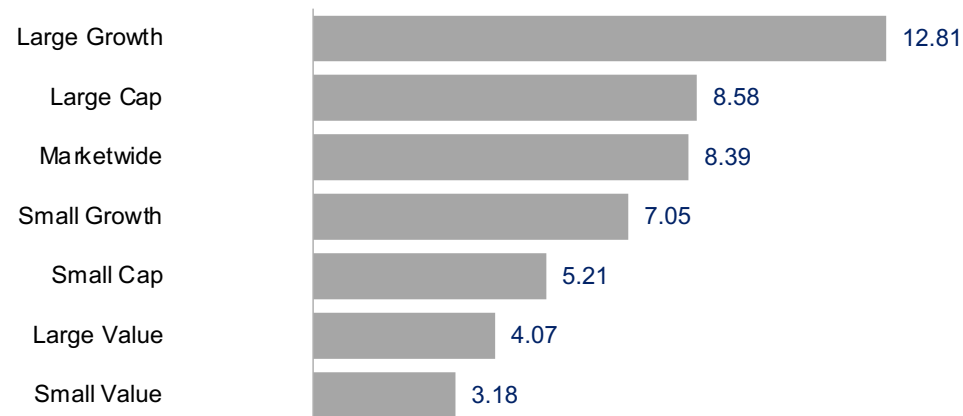
World Market Capitalization—US



61%

US Market
\$43.4 trillion

Ranked Returns (%)



Period Returns (%)

| Asset Class | QTR | YTD | 1 Year | Annualized | | |
|--------------|-------|-------|--------|------------|---------|----------|
| | | | | 3 Years | 5 Years | 10 Years |
| Large Growth | 12.81 | 29.02 | 27.11 | 13.73 | 15.14 | 15.74 |
| Large Cap | 8.58 | 16.68 | 19.36 | 14.09 | 11.92 | 12.64 |
| Marketwide | 8.39 | 16.17 | 18.95 | 13.89 | 11.39 | 12.34 |
| Small Growth | 7.05 | 13.55 | 18.53 | 6.10 | 4.22 | 8.83 |
| Small Cap | 5.21 | 8.09 | 12.31 | 10.82 | 4.21 | 8.26 |
| Large Value | 4.07 | 5.12 | 11.54 | 14.30 | 8.11 | 9.22 |
| Small Value | 3.18 | 2.50 | 6.01 | 15.43 | 3.54 | 7.29 |

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: 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 2023, 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

Second 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.

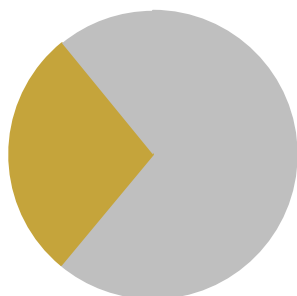
Value outperformed growth.

Small caps underperformed large caps.

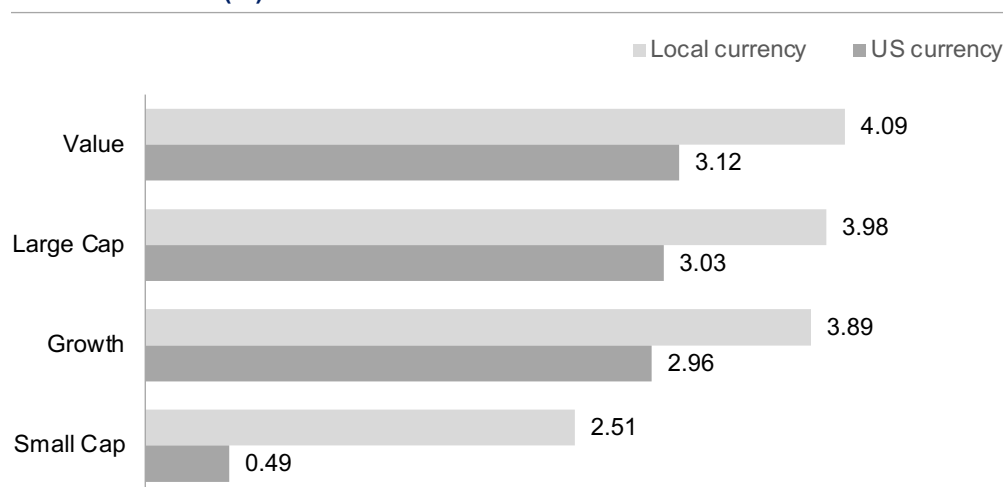
World Market Capitalization—International Developed

28%

International
Developed Market
\$20.0 trillion



Ranked Returns (%)



Period Returns (%)

| Asset Class | QTR | YTD | 1 Year | Annualized | | |
|-------------|------|-------|--------|------------|---------|----------|
| | | | | 3 Years | 5 Years | 10 Years |
| Value | 3.12 | 8.92 | 15.49 | 12.07 | 3.24 | 4.25 |
| Large Cap | 3.03 | 11.29 | 17.41 | 9.30 | 4.58 | 5.40 |
| Growth | 2.96 | 13.76 | 19.40 | 6.24 | 5.46 | 6.28 |
| Small Cap | 0.49 | 5.50 | 10.05 | 6.42 | 1.83 | 5.97 |

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Emerging Markets Stocks

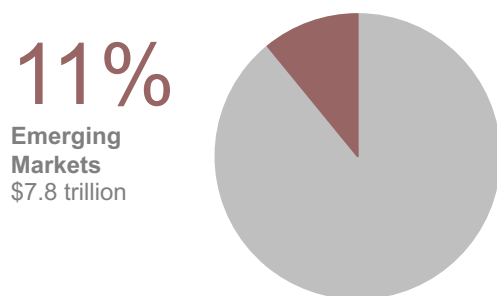
Second quarter 2023 index returns

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

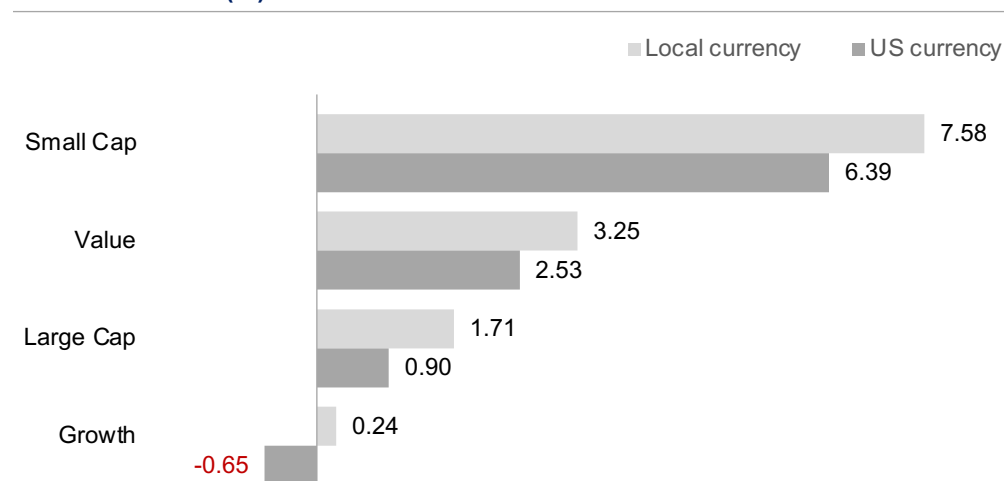
Value outperformed growth.

Small caps outperformed large caps.

World Market Capitalization—Emerging Markets



Ranked Returns (%)



Period Returns (%)

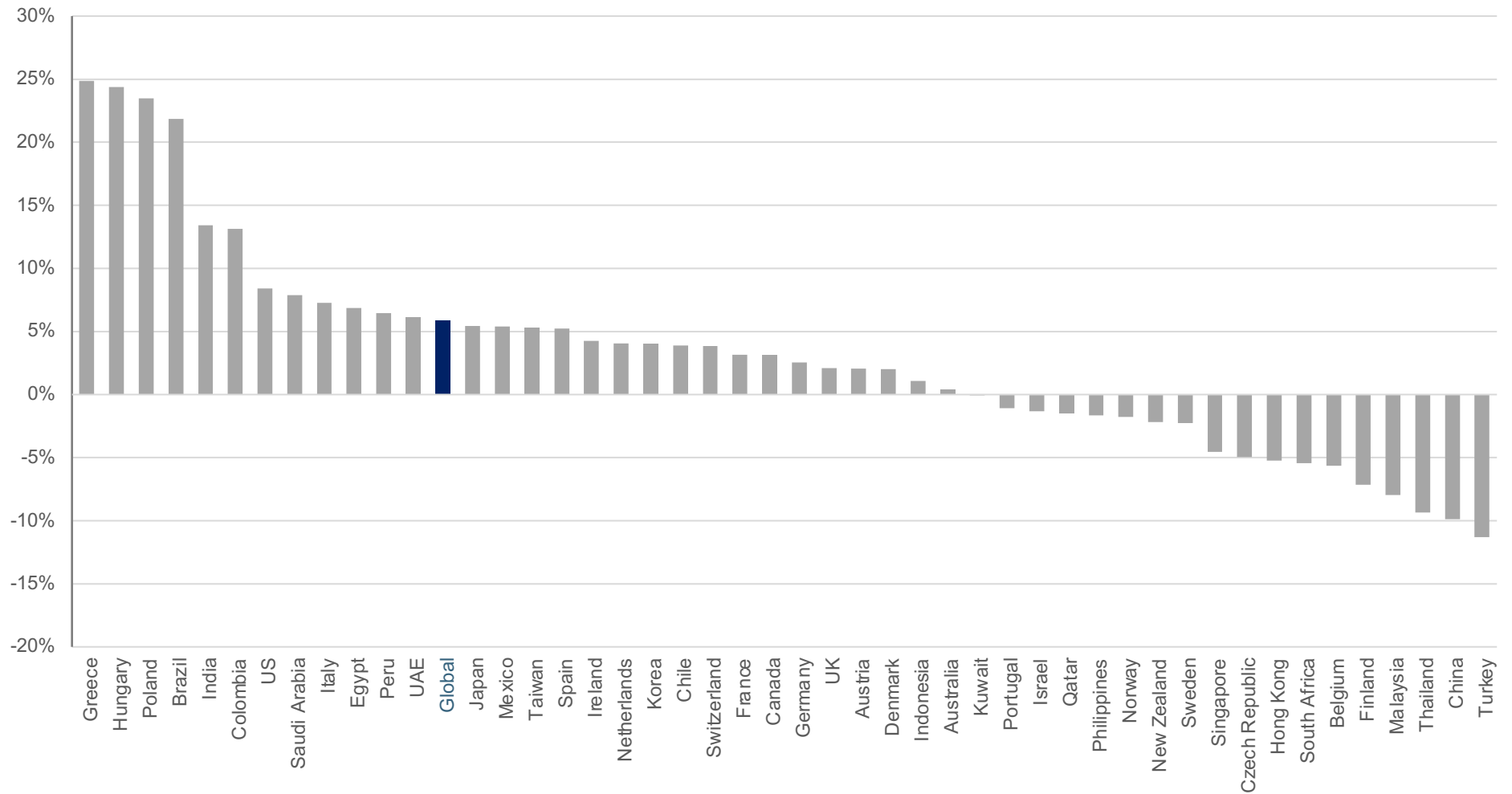
| Asset Class | QTR | YTD | 1 Year | Annualized | | |
|-------------|-------|-------|--------|------------|---------|----------|
| | | | | 3 Years | 5 Years | 10 Years |
| Small Cap | 6.39 | 10.50 | 13.28 | 13.72 | 4.93 | 4.63 |
| Value | 2.53 | 6.53 | 4.13 | 6.27 | 1.22 | 1.99 |
| Large Cap | 0.90 | 4.89 | 1.75 | 2.32 | 0.93 | 2.95 |
| Growth | -0.65 | 3.32 | -0.45 | -1.36 | 0.53 | 3.79 |

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Country Returns

Second 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)

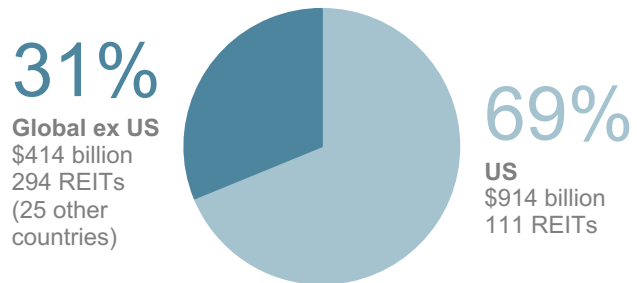
Second quarter 2023 index returns

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

Ranked Returns (%)



Total Value of REIT Stocks



Period Returns (%)

| Asset Class | QTR | YTD | 1 Year | Annualized | | |
|--------------------|-------|-------|--------|------------|---------|----------|
| | | | | 3 Years | 5 Years | 10 Years |
| US REITS | 2.92 | 5.77 | -0.69 | 9.17 | 3.28 | 5.75 |
| Global ex US REITS | -2.98 | -3.85 | -7.02 | 0.31 | -2.61 | 1.36 |

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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

Second quarter 2023 index returns

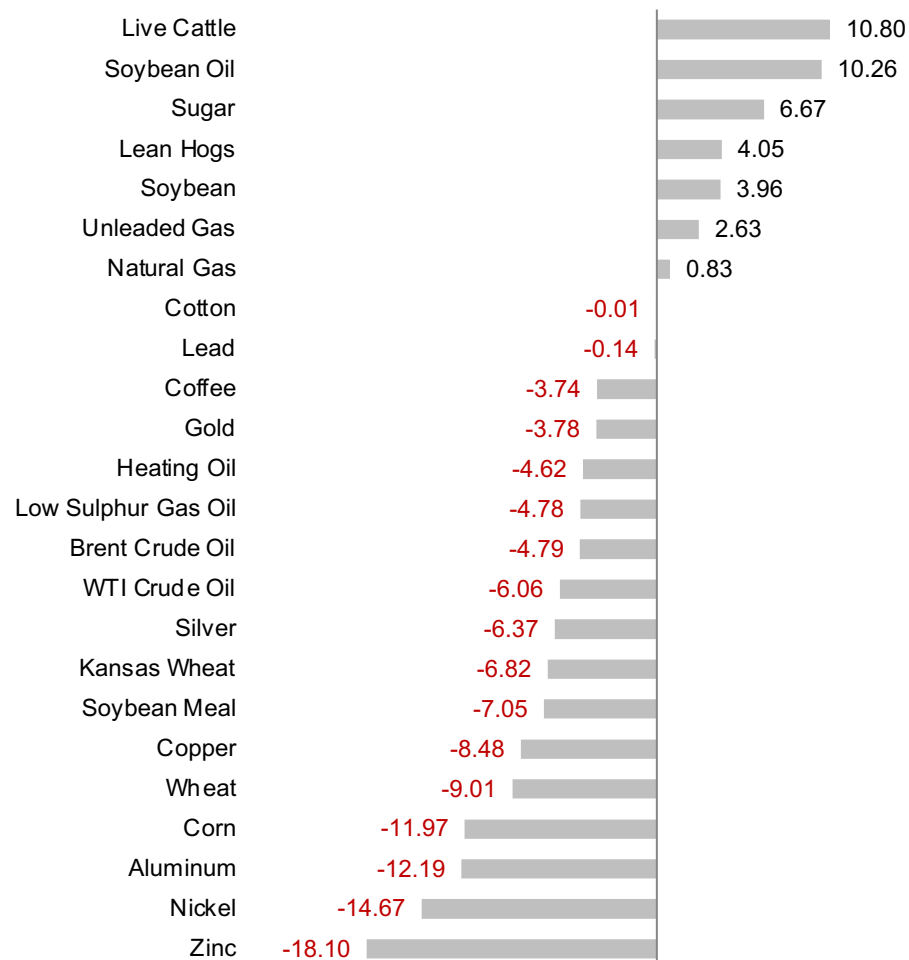
The Bloomberg Commodity Total Return Index returned -2.56% for the second quarter of 2023.

Zinc and Nickel were the worst performers, returning -18.10% and -14.67% during the quarter, respectively. Live Cattle and Soybean Oil were the best performers, returning +10.80% and +10.26% during the quarter, respectively.

Period Returns (%)

| Asset Class | QTR | YTD | 1 Year | Annualized | | |
|-------------|-------|-------|--------|------------|---------|----------|
| | | | | 3 Years | 5 Years | 10 Years |
| Commodities | -2.56 | -7.79 | -9.61 | 17.82 | 4.73 | -0.99 |

Ranked Returns (%)





Fixed Income

Second quarter 2023 index returns

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

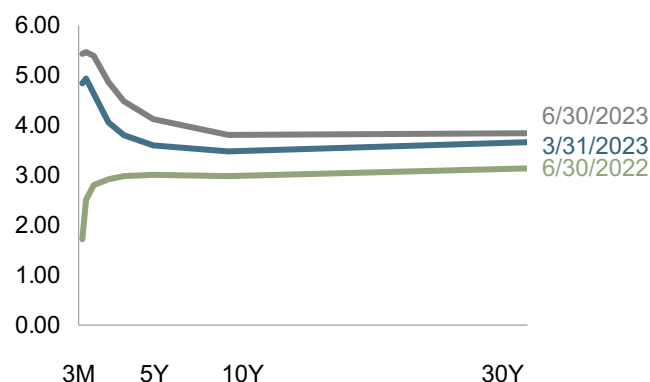
On the short end of the yield curve, the 1-Month US Treasury Bill yield increased 50 basis points (bps) to 5.24%, while the 1-Year US Treasury Bill yield increased 76 bps to 5.40%. The yield on the 2-Year US Treasury Note increased 81 bps to 4.87%.

The yield on the 5-Year US Treasury Note increased 53 bps to 4.13%. The yield on the 10-Year US Treasury Note increased 33 bps to 3.81%. The yield on the 30-Year US Treasury Bond increased 18 bps to 3.85%.

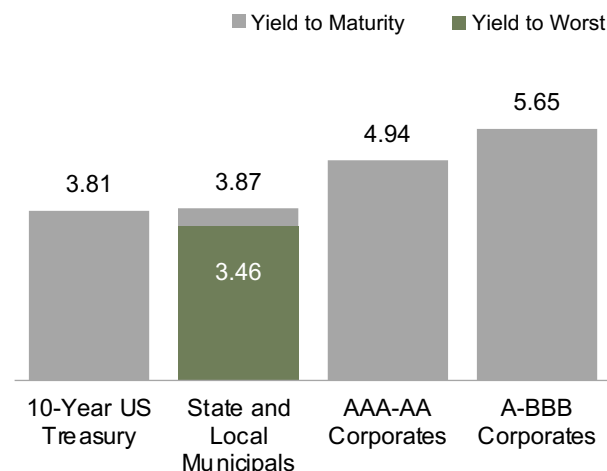
In terms of total returns, short-term US treasury bonds returned -0.90% while intermediate-term US treasury bonds returned -1.15%. Short-term corporate bonds returned +0.07% and intermediate-term corporate bonds returned -0.16%.¹

The total returns for short- and intermediate-term municipal bonds were -0.37% and -0.72%, respectively. Within the municipal fixed income market, general obligation bonds returned -0.41% while revenue bonds returned +0.04%.²

US Treasury Yield Curve (%)



Bond Yield Across Issuers (%)



Period Returns (%)

| Asset Class | QTR | YTD | 1 Year | Annualized | | |
|------------------------------------------------------------|-------|------|--------|------------|---------|----------|
| | | | | 3 Years | 5 Years | 10 Years |
| Bloomberg U.S. High Yield Corporate Bond Index | 1.75 | 5.38 | 9.06 | 3.13 | 3.36 | 4.43 |
| ICE BofA US 3-Month Treasury Bill Index | 1.17 | 2.25 | 3.59 | 1.27 | 1.55 | 0.98 |
| ICE BofA 1-Year US Treasury Note Index | 0.42 | 1.67 | 1.93 | 0.23 | 1.30 | 0.89 |
| Bloomberg Municipal Bond Index | -0.10 | 2.67 | 3.19 | -0.58 | 1.84 | 2.68 |
| FTSE World Government Bond Index 1-5 Years (hedged to USD) | -0.27 | 1.53 | 0.28 | -1.15 | 0.95 | 1.14 |
| Bloomberg U.S. Aggregate Bond Index | -0.84 | 2.09 | -0.94 | -3.96 | 0.77 | 1.52 |
| FTSE World Government Bond Index 1-5 Years | -1.19 | 0.87 | -0.27 | -2.84 | -0.77 | -0.67 |
| Bloomberg U.S. TIPS Index | -1.42 | 1.87 | -1.40 | -0.12 | 2.49 | 2.08 |
| Bloomberg U.S. Government Bond Index Long | -2.29 | 3.73 | -6.79 | -12.02 | -0.88 | 1.81 |

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 © 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

Second quarter 2023 yield curves

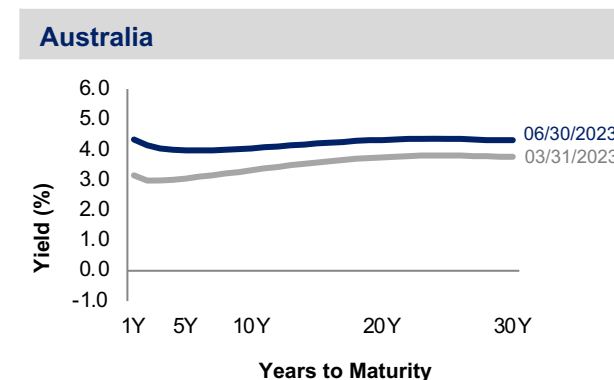
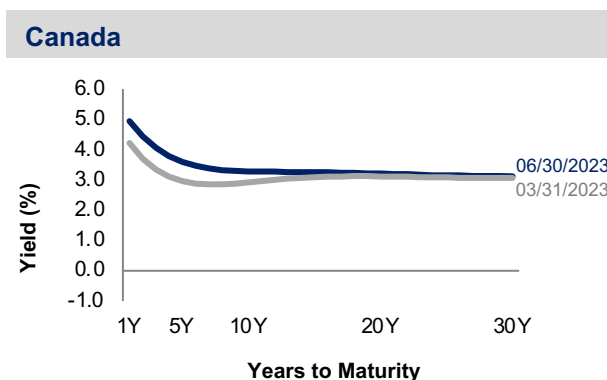
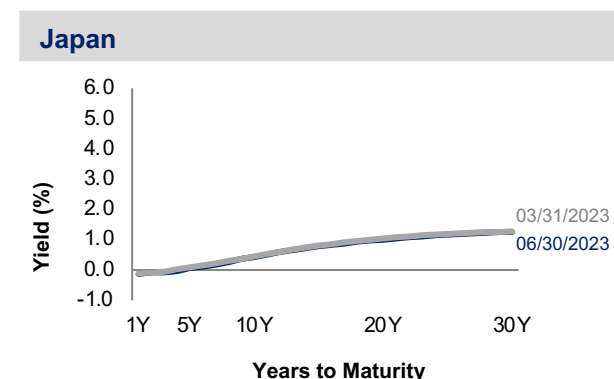
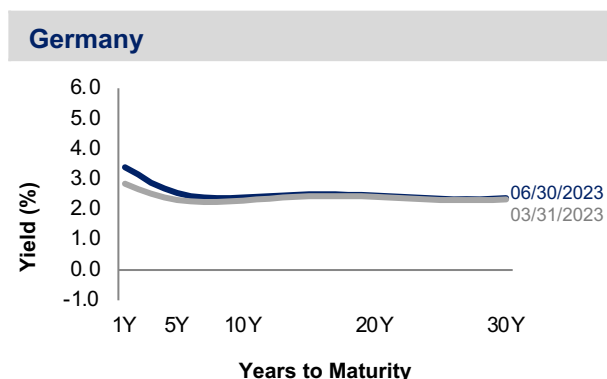
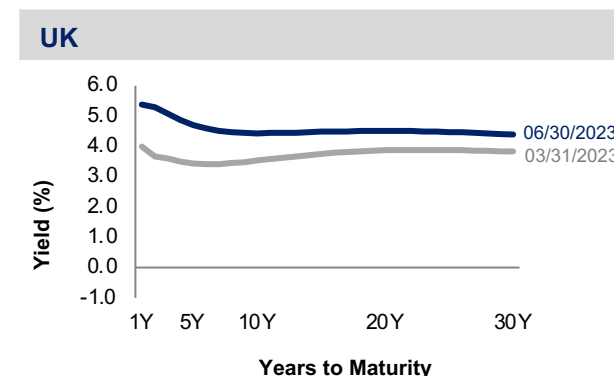
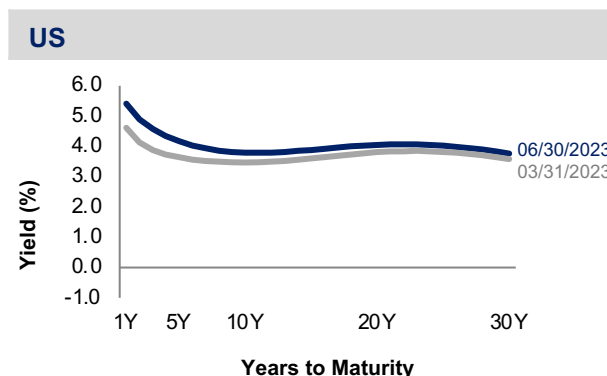
With the exception of Japan, interest rates generally increased across global developed markets for the quarter.

Realized term premiums were broadly negative across global developed markets.

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 03/31/2023

| | 1Y | 5Y | 10Y | 20Y | 30Y |
|-----------|-------|-------|------|------|------|
| US | 79.6 | 53.1 | 32.5 | 23.9 | 18.1 |
| UK | 138.7 | 127.0 | 90.6 | 64.2 | 56.6 |
| Germany | 54.3 | 22.2 | 9.4 | 4.0 | 3.8 |
| Japan | -1.0 | -3.0 | -1.8 | -3.3 | -1.3 |
| Canada | 72.1 | 63.3 | 36.3 | 8.9 | 6.1 |
| Australia | 118.9 | 92.6 | 72.3 | 57.1 | 54.9 |





Let the Compounding Commence!

Second quarter 2023

David Booth, Executive Chairman and Founder, Dimensional Fund Advisors

Every year, families and friends celebrate students who are graduating from colleges and universities. Parents beam with pride at their children's accomplishments and exhale in relief now that the tuition bills have finally stopped. It's a time when adults give a lot of advice, which is why I have one simple idea I want to pass along to this year's graduating class that I hope you never forget. Parents, take note too, because with college out of the way, you can get back to focusing on retirement.

Let the compounding begin!

In case you didn't come across this idea in an econ class, let me explain compounding simply. It's the process by which the value of an investment increases over time as earnings or interest are reinvested. It's the snowball effect but with money. Here's an example.

If you're a US investor and lucky enough to have up to \$35,000 left over in your 529 college savings plan, you can roll it over into a Roth IRA starting in 2024, provided the account has been open at least 15 years.¹

If you don't touch that \$35,000 for 50 years, and the market averages a 10% annualized return, which is close to its long-term historical average, then guess how much you'll have?²

A. \$1,584,074

B. \$2,551,167

C. \$4,108,680

The answer is C. Over \$4.1 million!

If you were to start this in your mid-20s and invest that same initial amount for only 45 years, you'd end up with B, or \$2.6 million. That's great, but not as great as C.

If you do it for 40 years, you'll end up with A, or \$1.6 million. Also good, but, you know, not C.

1. Laura Saunders, "Your Child Picked a College! Tee Up Your 529 Plan," Wall Street Journal, May 5, 2023.

2. In US dollars. Based on S&P 500 Index annual returns, 1926–2022. S&P data © 2023 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.



Let the Compounding Commence!

(continued from page 18)

Another benefit of compounding is that it can help you pursue financial goals along the way, like making a down payment on a home. But don't worry if you spent your whole college fund or took out student loans. Start with a little and get in the habit of adding when you can. As you can see from this snowballing, having a lot of time can help make up for not having a lot of money.

In addition to increasing the value of your investments, compounding can also be a valuable force in life. For example, you've made an investment in time and money over the last few years that may have an enormous effect on the rest of your life. How much money are we talking about? College graduates, on average, earn 84% more than those with a high-school education, and that adds up to an extra \$1.2 million over a lifetime.³

Parents, I hope you're feeling a little better about your investment too.

But it's more than just money. When you get to be like me, someone who graduated from college more than 50 years ago, you see that you are the result of the compounding of your life's decisions, both good and bad. It's hard to quantify exactly, but it's sure there. For example, in graduate school, I decided I didn't want to be a professor. That one decision continues to have a profound impact on the rest of my life. Instead, I started a company with the people I met in graduate school. Four decades later, I'm still working with some of them. I even got to go watch my former professor and current colleague Eugene Fama receive a Nobel Prize in Economic Sciences. That was not on my bingo card when I graduated from college. Life is full of surprises, and many of them can come from how your decisions compound over decades.

So, start rolling your snowball, both in life and in investing. Let the compounding commence!

3. "How Does a College Degree Improve Graduates' Employment and Earnings Potential?", Association of Public and Land-Grant Universities.

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