Third quarter 2023

BOK Financial Investment Management

Investment expertise. Competitive results.

Four centers of expertise. More than 70 experienced investment professionals. Collaborating as one team.

Strategic Investment Advisors
Investment advisory and consulting

Research and analytics that build the foundation for investment services offered by BOK Financial.

- Asset allocation research.
- Manager selection and due diligence.
- Outsourced CIO services.
- Investment consulting.
- Managed accounts.
- Multi-asset solutions.

Cavanal Hill Investment Management
Asset management

A registered investment advisor and subsidiary of BOKF, NA. Fundamental and quantitative research across the capital markets.

- Taxable fixed income.
- Tax-free fixed income.
- Cash management.
- Domestic equity.
- Energy.
- Opportunistic strategies.

Alternative Investments
Comprehensive alternative services

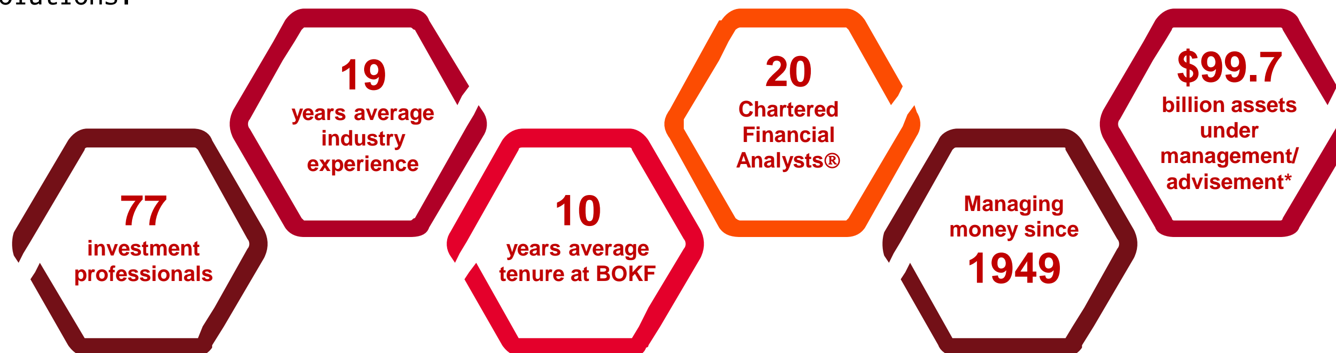
Provides access to a variety of non-traditional asset classes and strategies delivered through limited partnerships.

- Private equity.
- Real assets.
- Hedge funds.
- Semi-liquid or interval funds.
- Liquid alternatives.

Investment Management Communication

A dedicated team providing education and insight into the BOK Financial Investment Management process as well as current economic and market conditions for both internal and external audiences.

- Regular market commentary.
- Timely response to changing market conditions.



*The Investment Management team is part of the BOK Financial Wealth Management division, which had $99.7 billion in assets under management and custody as of 12/31/2022.

Key points

1. Economic growth remains resilient in the face of significant tightening from the Federal Reserve.

2. U.S. consumers continue to support the economy as they benefit from a strong job market and higher wages as headline inflation, particularly energy costs, subsides.

3. Financial markets have consistently underestimated the stickiness of core inflation. The Federal Reserve will likely hold financial conditions tight to ensure inflation slows.

4. Equity markets appear to be pricing in a soft landing or the near miraculous no-landing, despite growing signs of broad economic slowing and a continued firm Fed hand.

5. Since an economic recession is not priced into financial markets and with limited upside to current equity valuations, we remain cautious on equities. High-quality fixed-income markets seem to provide better risk-adjusted return potential.

Base case outlook

Economy

Economic growth slows, and recession odds increase.

Policy

The Federal Reserve is nearing the end of its tightening cycle. Ongoing fiscal outlays are supporting demand.

Markets

Bond markets offer attractive yields but low spreads. Equities remain volatile as earnings are a risk.

Risks: Tighter lending standards and higher unemployment slow growth significantly.

Risk: Persistent inflation takes rates higher than expected.

Risk: The potential for a global recession leads to earnings collapse.

State of the economy

1 | Economic deceleration

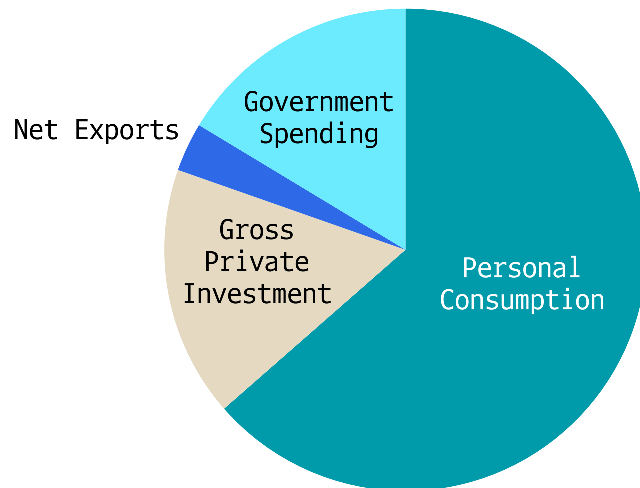
2 | Strong consumer

3 | Sticky inflation

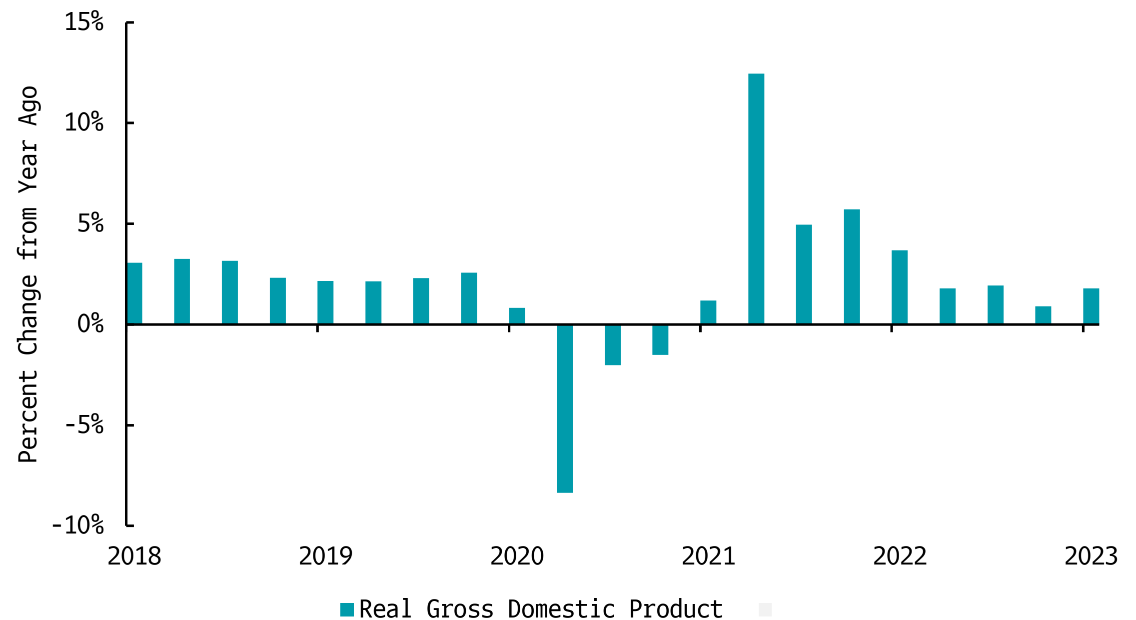
GDP - Cool the economy to stop inflation

- Growth re-accelerated beginning in the summer of 2022 despite the Federal Reserve raising rates.
- A strong job market and excess COVID savings fueled consumer spending, buoying the economy.
- GDP growth should decelerate significantly in 2023 as Fed tightening impacts the economy with a lag and as excess consumer savings is depleted.

Composition of GDP



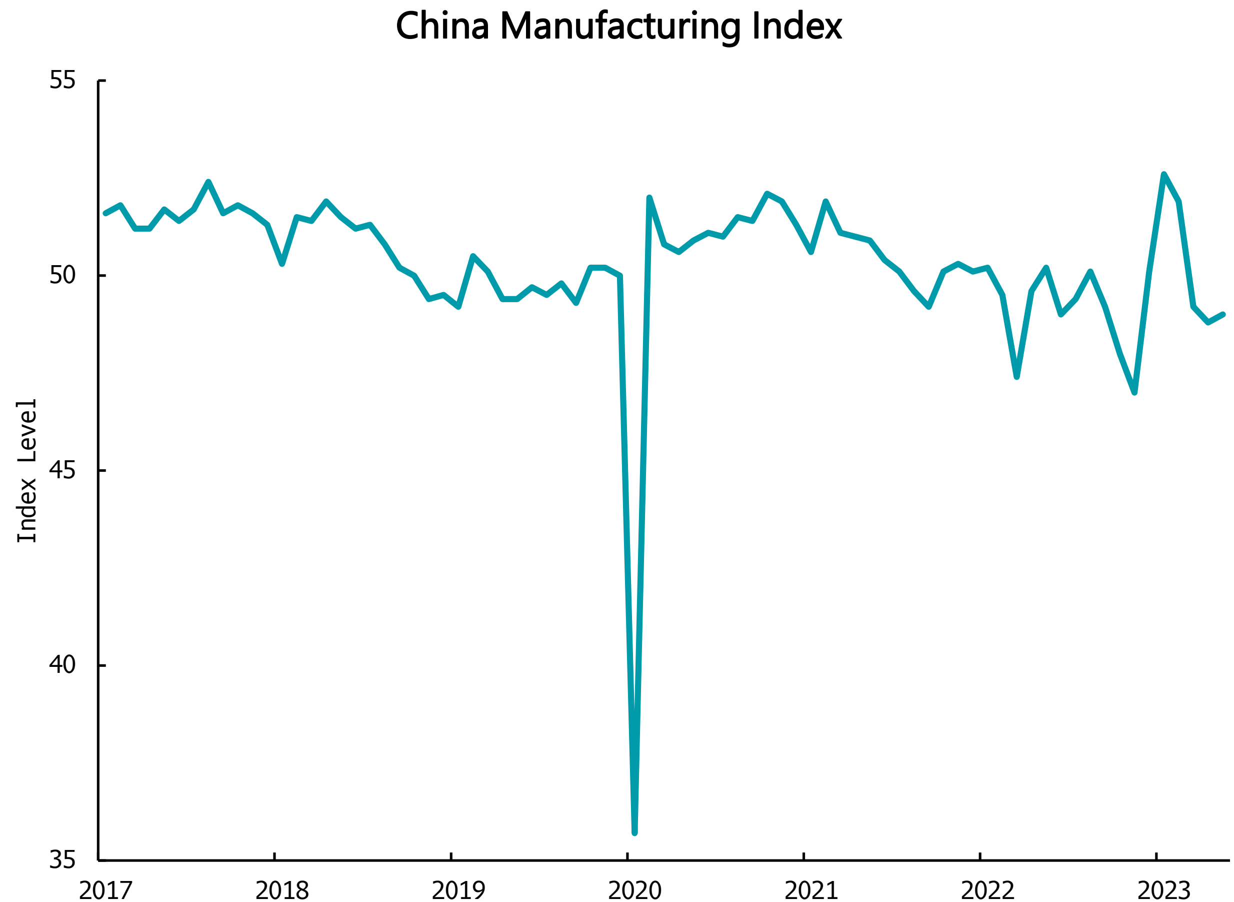
Real Gross Domestic Product



Source: Federal Reserve. Data shown as of June 30, 2023.

Global GDP-China slowdown

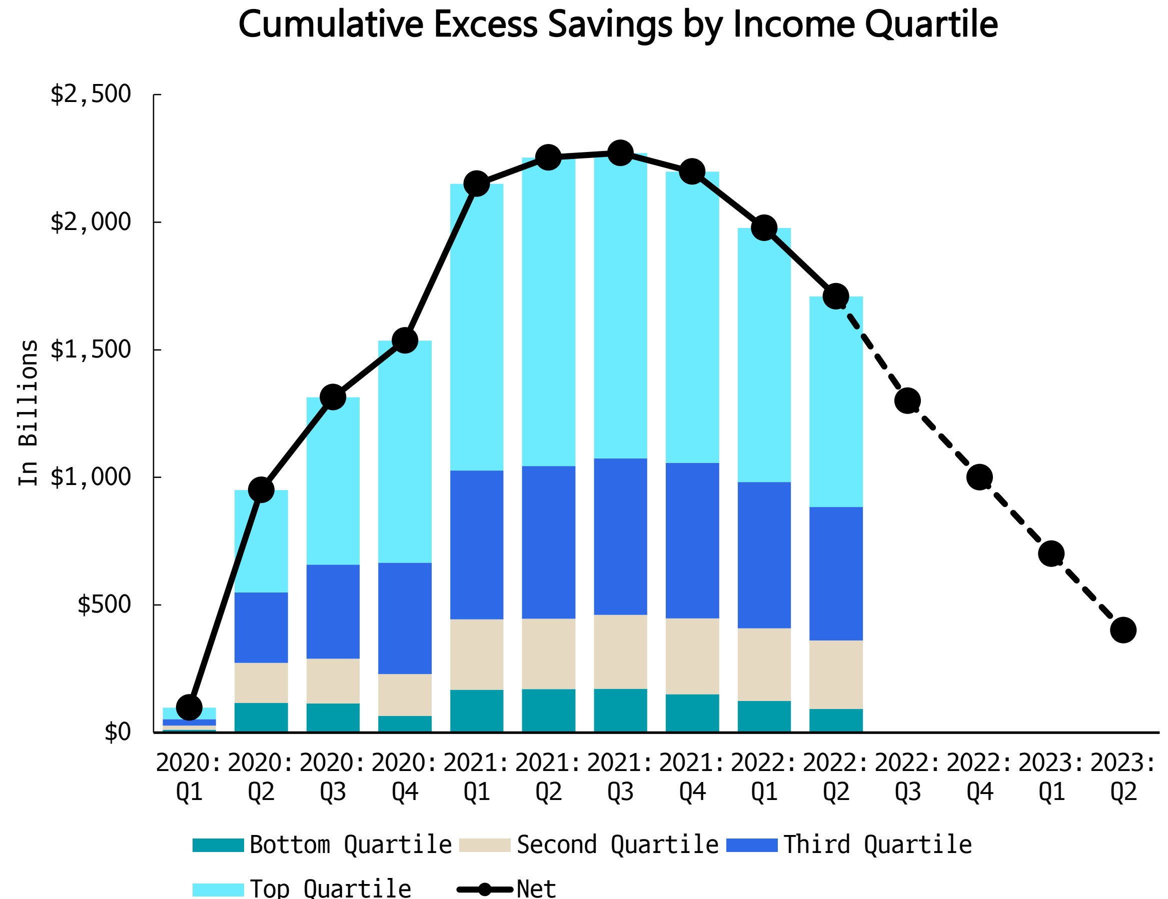
- After three years of lockdown, China has begun reopening its economy.
- The reopening has been fairly disappointing as many of the pre-COVID imbalances in China's economy remain.
- Disappointing Chinese growth has dampened global growth prospects.



Source: Bloomberg. Data shown as of June 30, 2023.

Consumer - Excess savings being spent

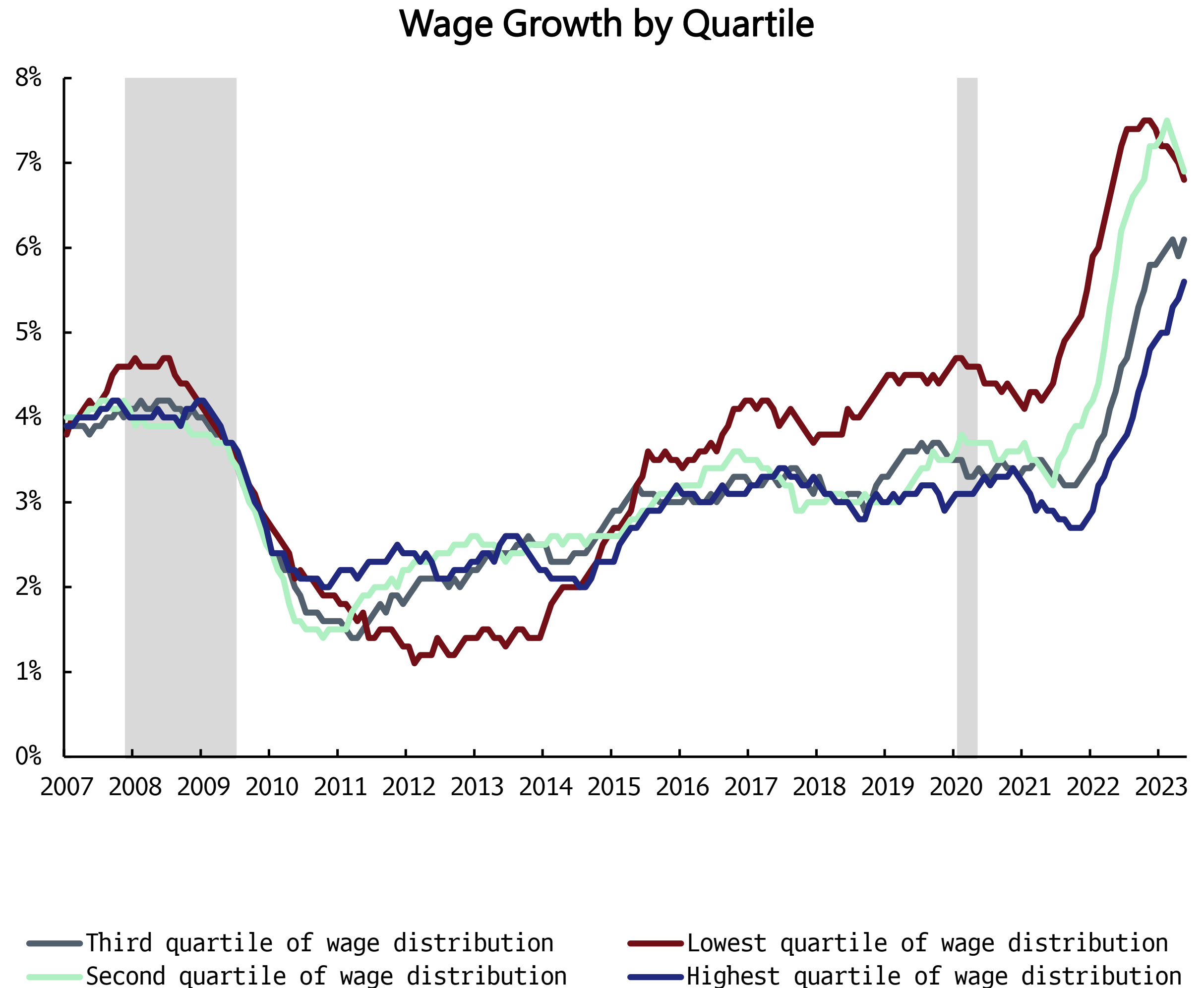
- At its peak, consumers had over $2 trillion in excess savings.
- As we approach the end of 2023, excess savings are likely to be depleted.
- The lower end of U.S. incomes have spent all stimulus and are increasing credit card debt.
- A slowing consumer is one factor that may lead to a decelerating economy in 2023.



Source: Federal Reserve Bank of St. Louis. Data as of October 31, 2022. Values after October 31, 2022, are estimates.

Consumer - Wage gains by income quartile

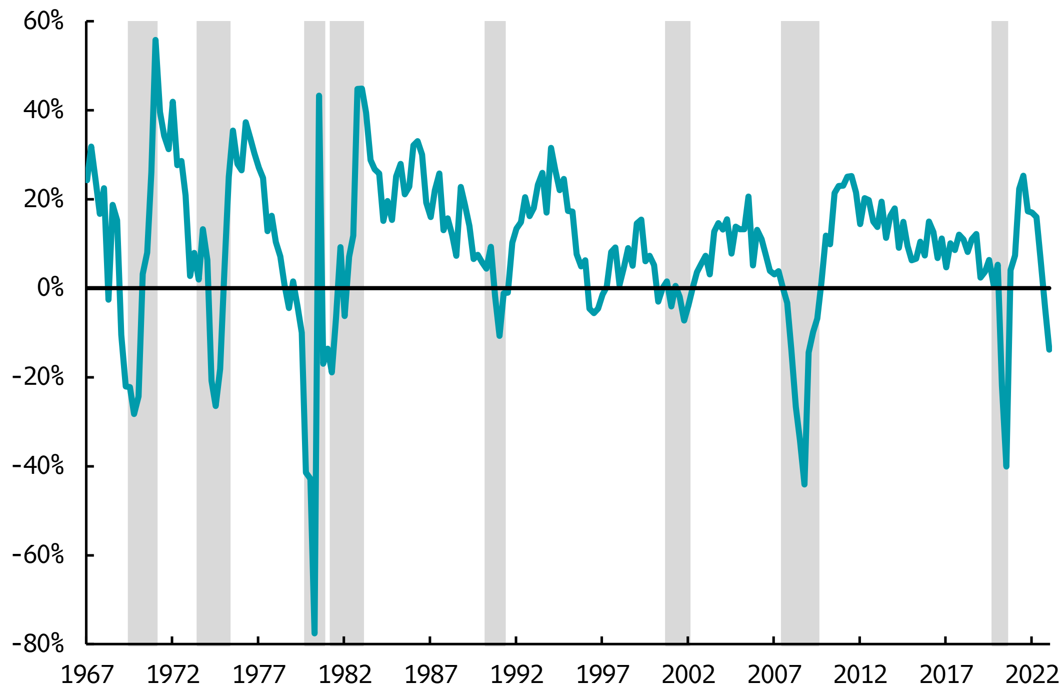
- The largest wage gains have been within the lower half of income earners.
- As headline inflation declines, these higher wages support consumer spending.
- Companies will have to deal with narrowing margins as inflation slows real unit growth.



Source: Federal Reserve Bank of Atlanta. Data as of May 31, 2023.

Consumer - Liquidity declining

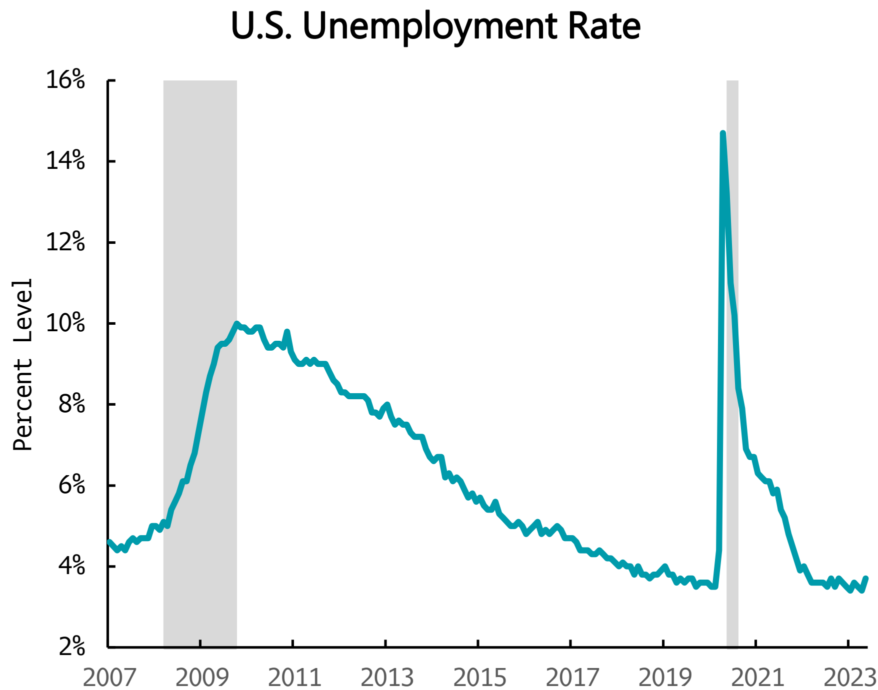
- As consumers spend down their excess savings, they're continuing to spend on credit cards where interest rates average above 20%.
- U.S. banks are becoming less willing to lend to consumers.
- Tighter access to credit is associated with past recessions.

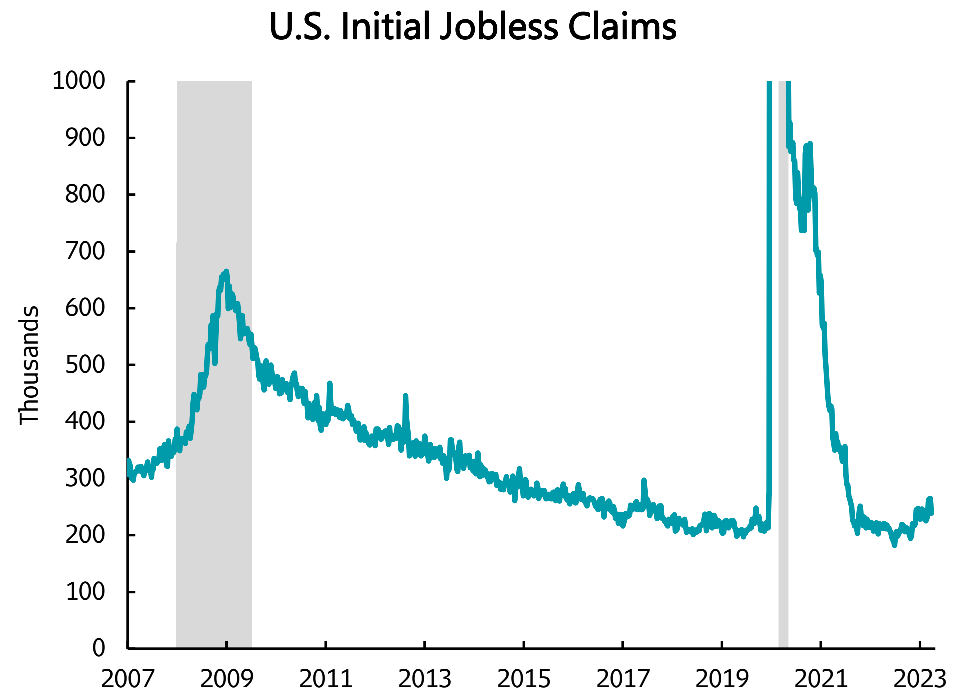


Source: Chart 1 - Cornerstone. Data shown as of February 28, 2023. Chart 2 - Bloomberg. Data shown as of March 31, 2023.

Consumer - Job market

- The labor market remains unbalanced, with unemployment near multi-decade lows.
- The unbalanced labor market, with more demand than supply, has led to wage gains that have fueled inflation.
- Open jobs continue to exceed supply of unemployed labor.

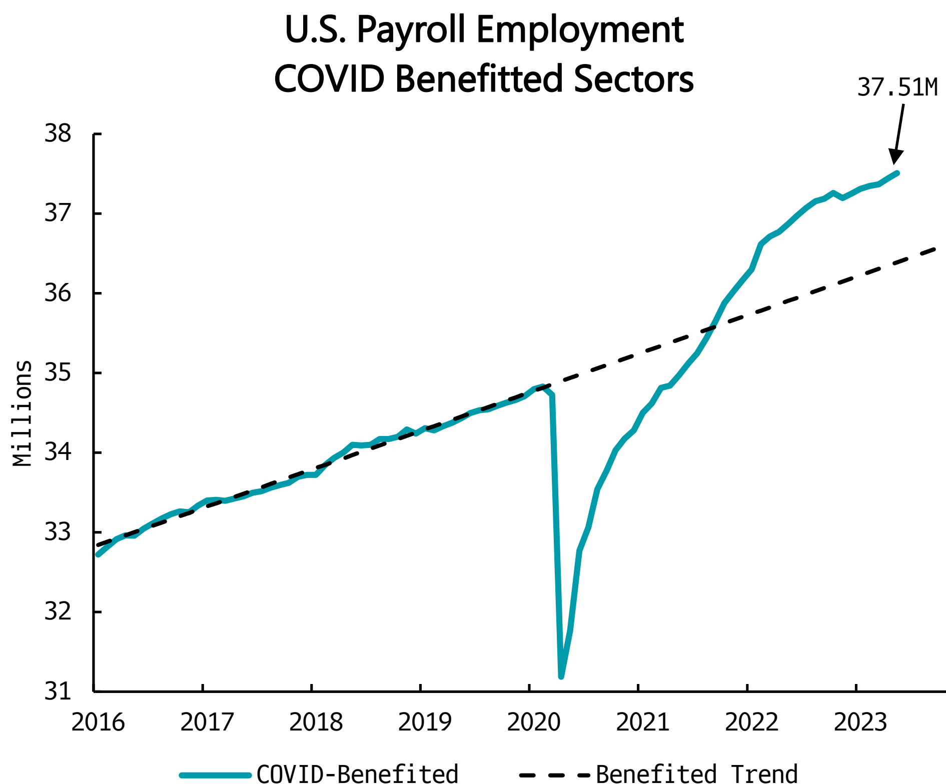


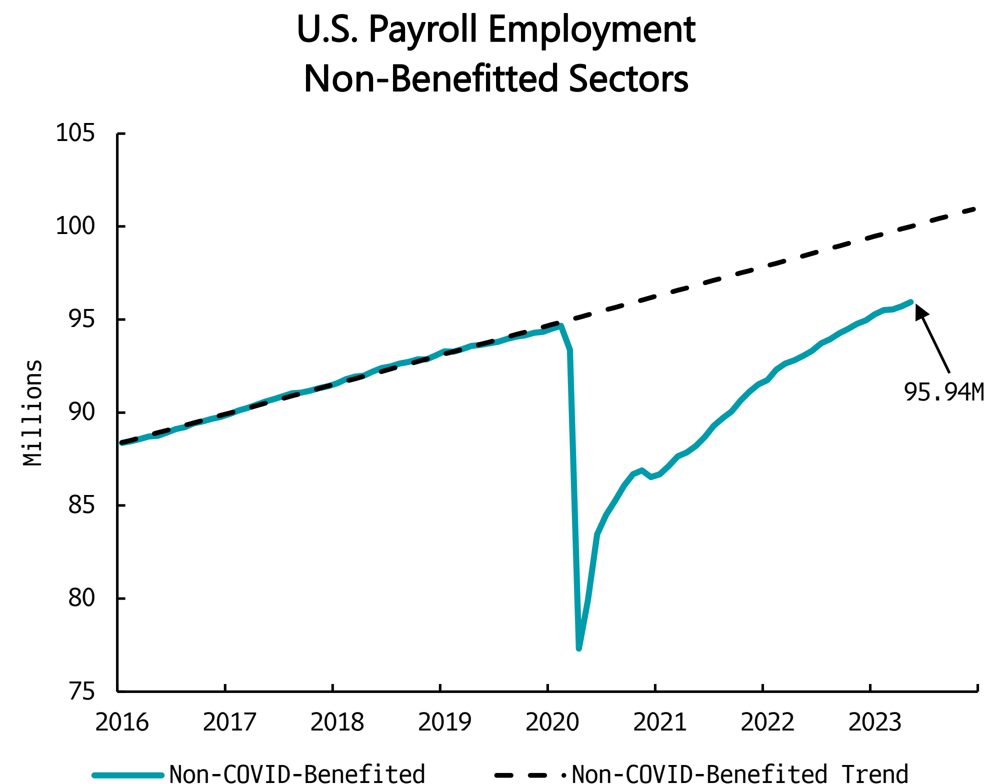


Source: Bloomberg. Data shown as of June 30, 2023.

Consumer - Job market is bifurcated

- Recent layoff announcements have been primarily in COVID- benefited sectors where employment remains above trend.
- Businesses that did not benefit from COVID remain below trend, which puts upward pressure on wages and drives inflation higher.

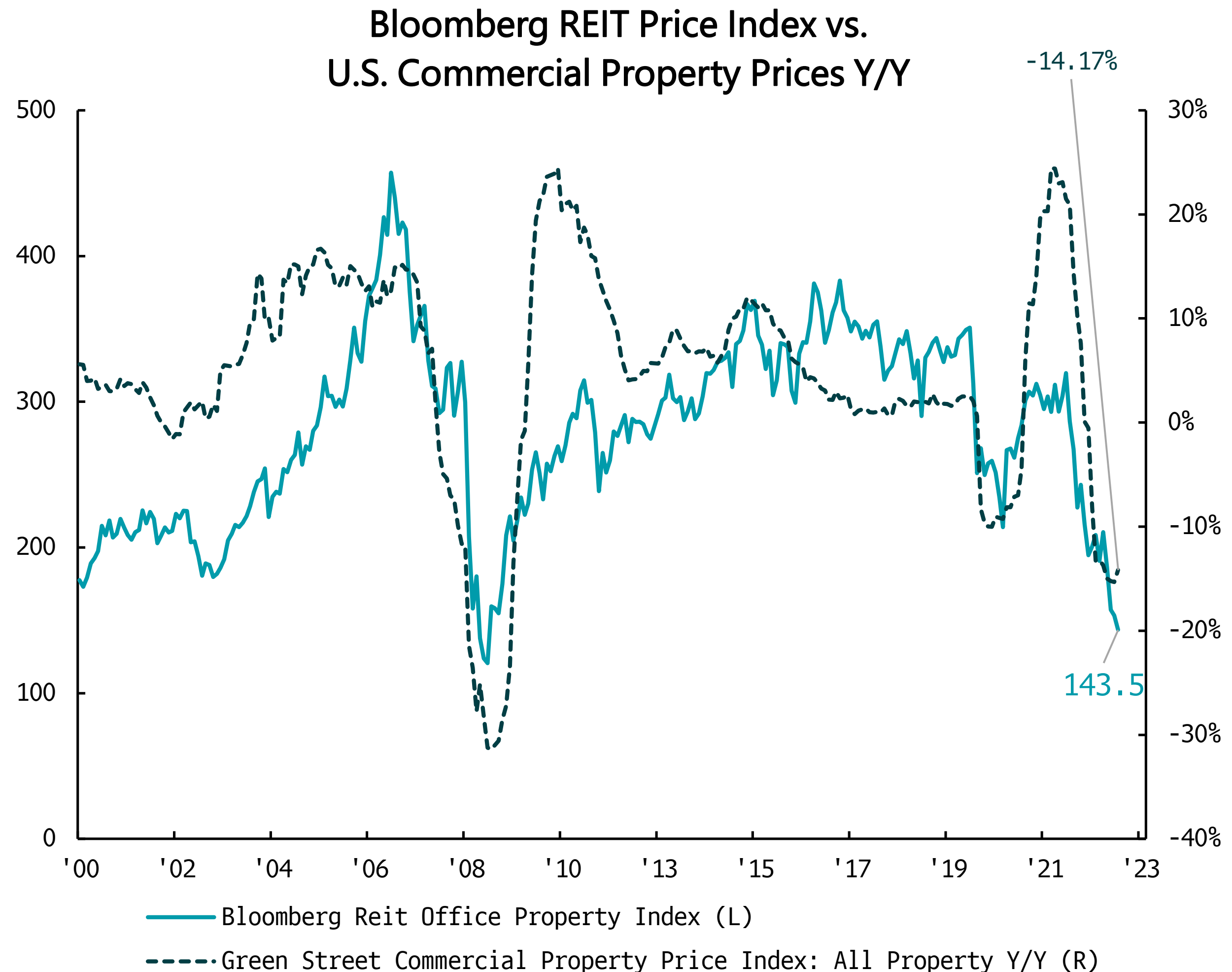




COVID benefited sectors include residential construction, specialty trade, retail (excluding autos, transportation and warehousing), information, and professional and technical services.
Source: Cornerstone. Data shown as of June 30, 2023.

Investment - Commercial real estate

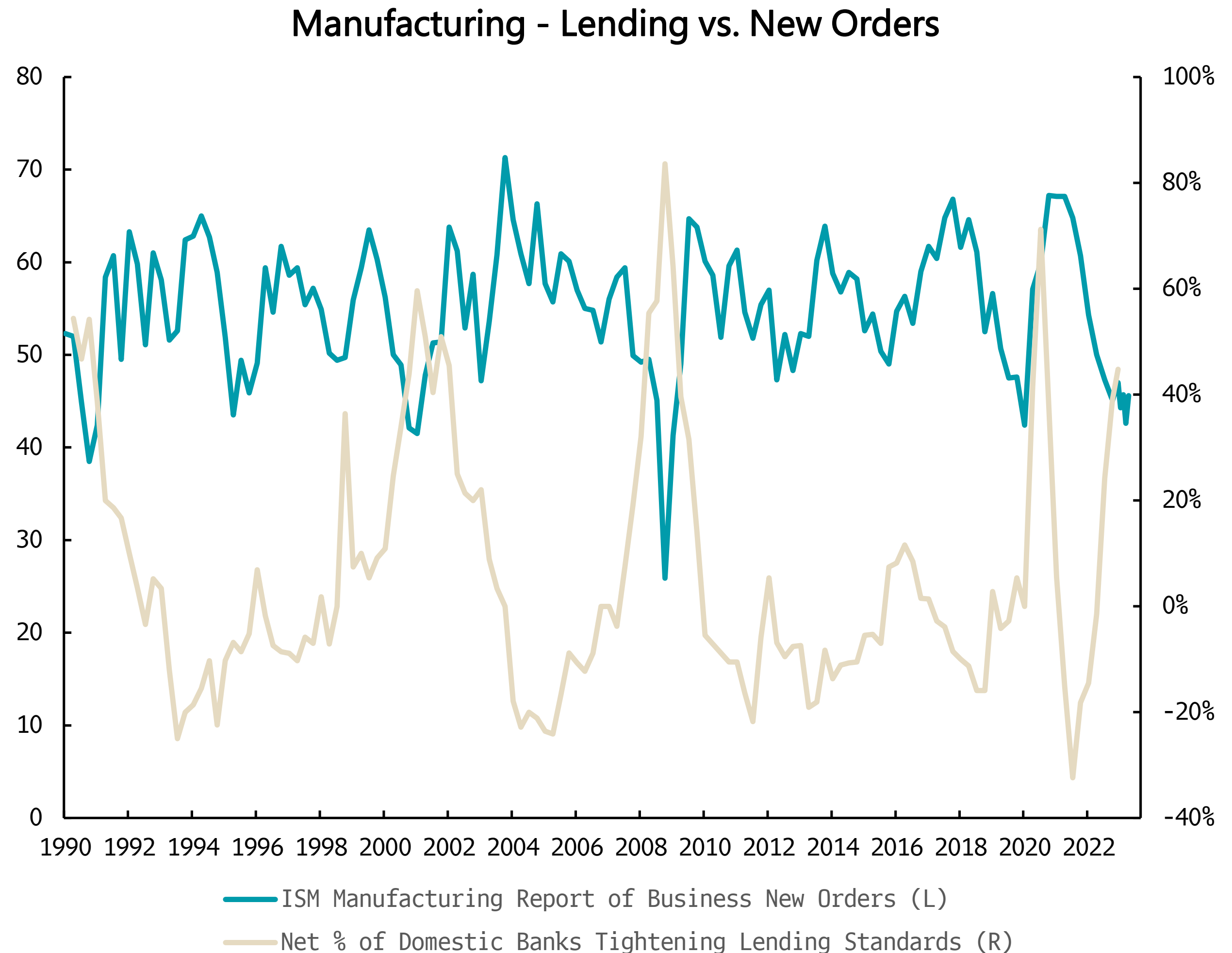
- COVID is still impacting our economy. A material shift toward hybrid work puts commercial office space at risk of lower valuations.
- Higher interest rates add to the deteriorating economics of large commercial office spaces.
- Commercial real estate is a major asset base for U.S. banks.



Source: Strategas. Data shown as of May 31, 2023.

Investment – Banks see more risk

- With concern of a slowdown, banks are tightening lending standards for commercial and industrial loans.
- CEO confidence is approaching a low, and as a result, new investments may be deferred.
- Economic activity associated with new investments is likely to slow, another headwind to economic growth.



Source: Bloomberg. Data shown as of June 30, 2023.

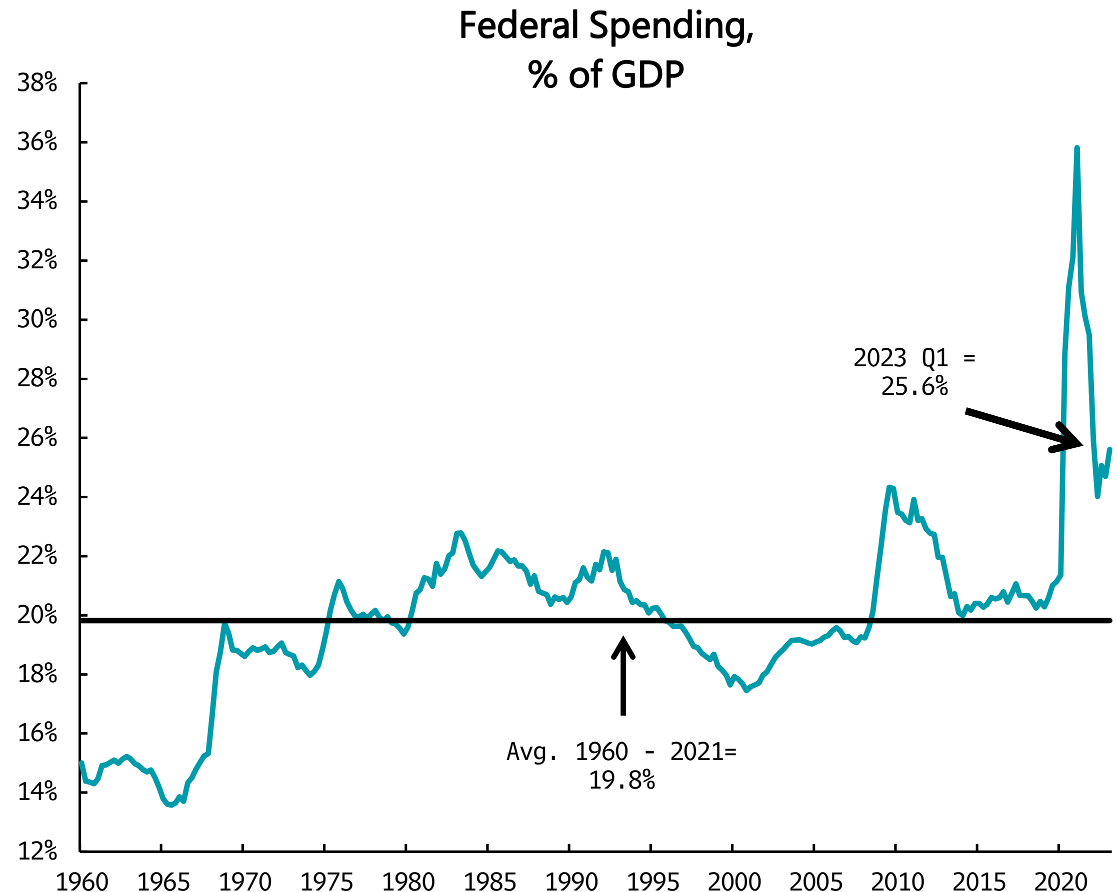
Net exports – Deglobalization

- Increasing geopolitical tensions are leading to new non-dollar-denominated trade agreements.
- Globalization, a theme present since the end of the Cold War, may have peaked.
- The U.S. is assessing its ability to re-shore key technologies, including semiconductors and advanced technology, fueling a burgeoning trade war with China.

Source: Our World in Data. Data as of December 31, 2020.

Government - Spending as a share of GDP

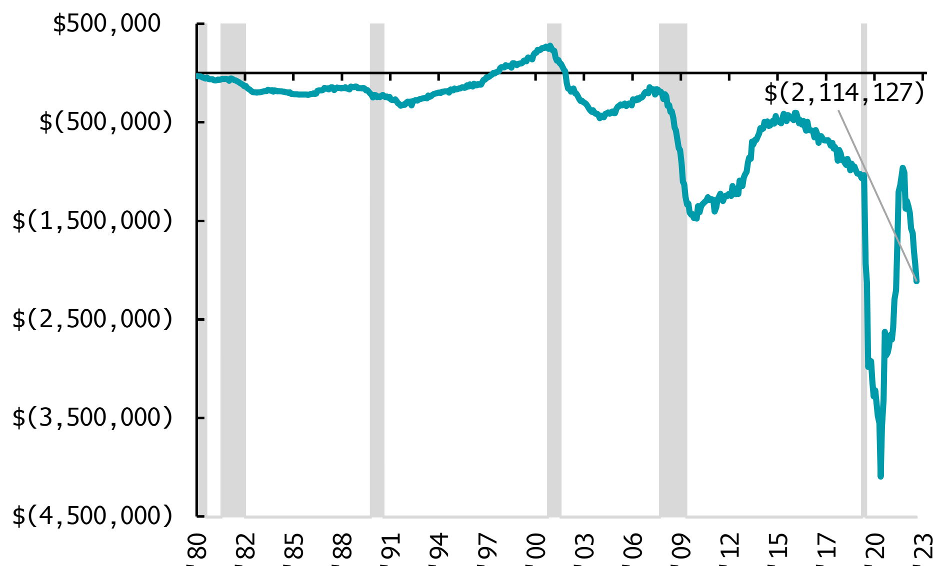
- Periods of economic stress commonly result in increased spending by the federal government.
- The increase in spending as a result of the pandemic was unprecedented.
- While spending has declined, it is still near the peak of spending during the Great Recession of 2008-2009.
- This ratio can be reduced by either reducing spending while GDP remains constant or holding spending constant while GDP grows.
- The suspension of the debt ceiling keeps government spending in place.

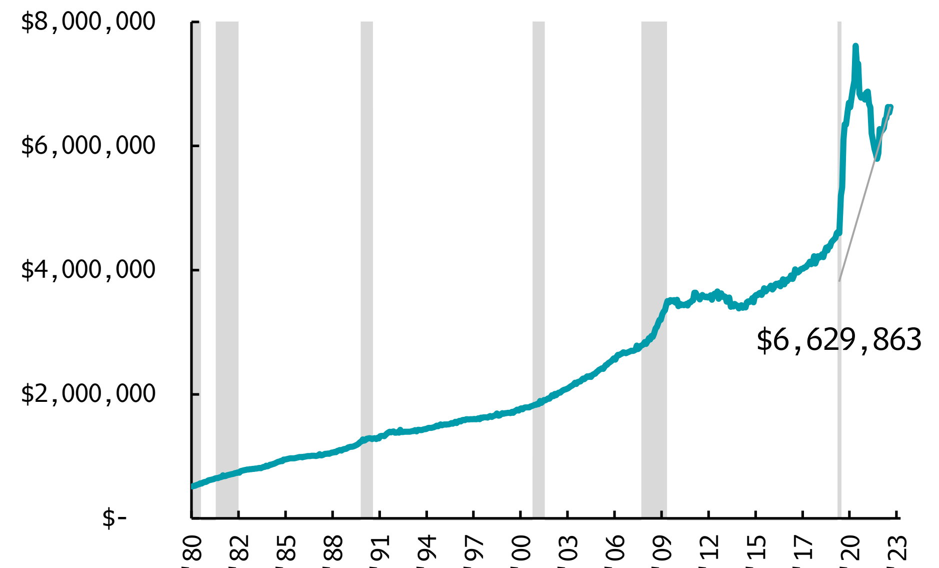


Source: Strategas. Data shown as of March 31, 2023.

Government - Federal debt continues to grow

- Spending has declined from its COVID related peak yet recent data show deficits are increasing again.
- The suspension of the debt ceiling means deficits can rise, or fall, based upon economic performance and budgetary decisions.
- The majority of the budget is mandatory spending, with much of that indexed to inflation, making it difficult to find areas where material spending cuts can be made.

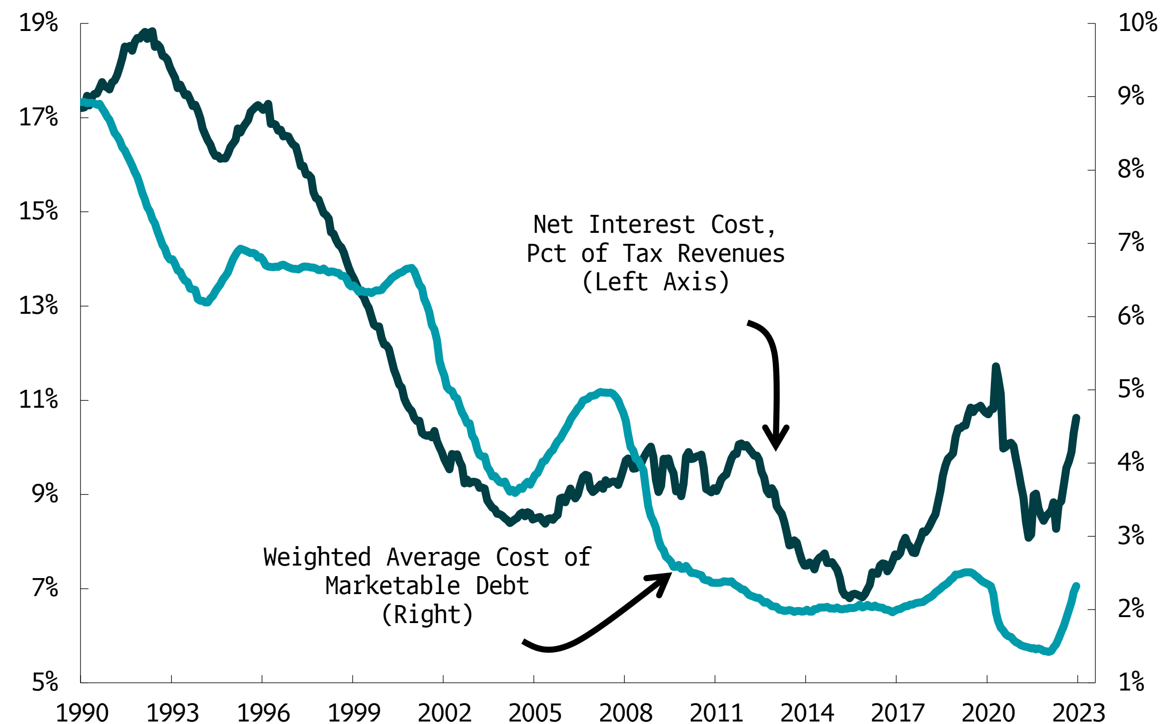




Source: Strategas. Data shown as of May 31, 2023.

Government - Rising rates on government debt

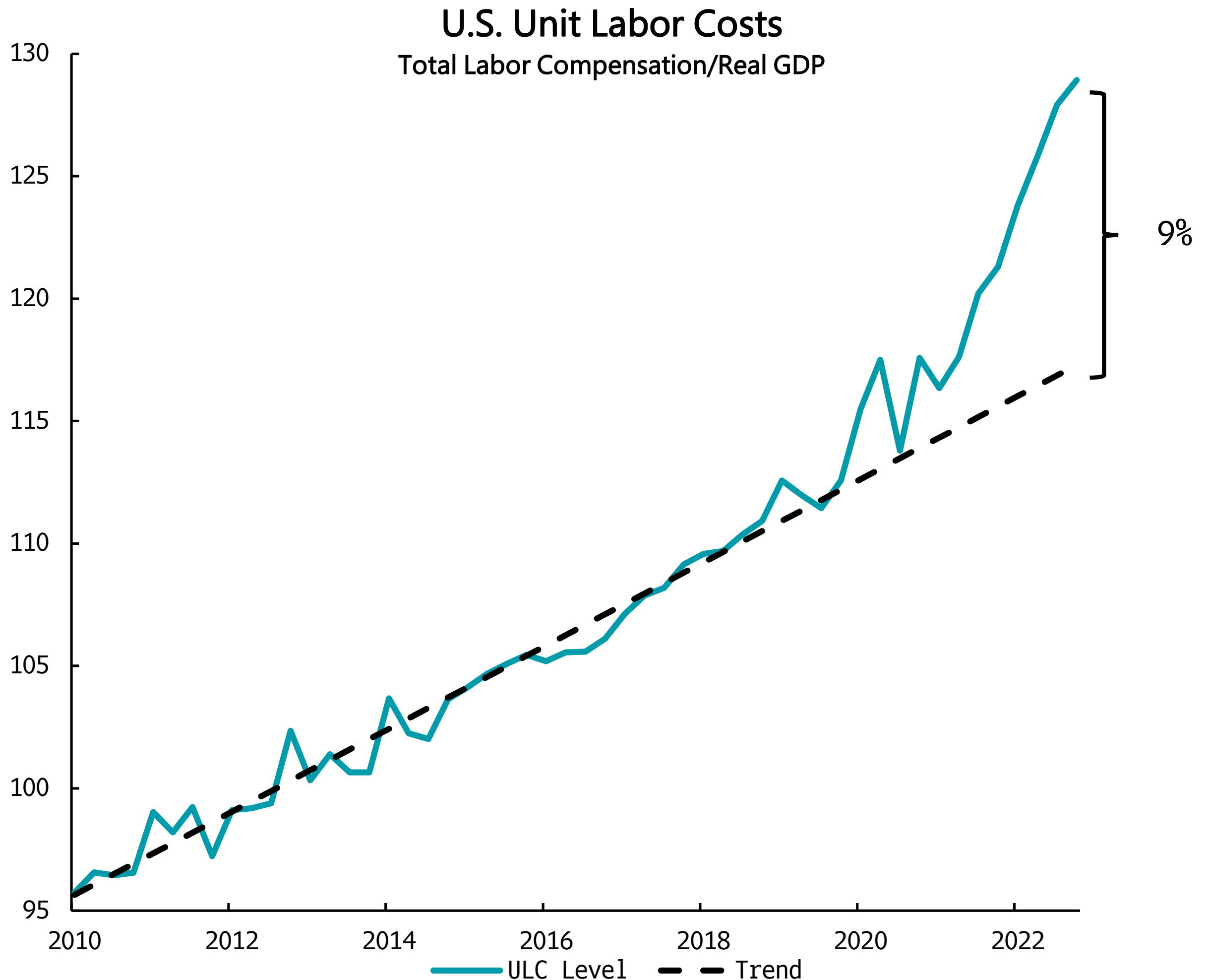
- As interest rates fell and remained low, the federal government could borrow money with little budgetary impact.
- Higher inflation has changed this environment. About fifty percent of the outstanding debt will re-price over the next three years.
- This very short maturity schedule helped hold down interest costs when rates were low but now threatens an explosive increase in debt service going forward.



Source: Strategas. Data shown as of December 31, 2022.

Inflation - Wages are a driver

- Competition for workers in the job market has led to significant wage increases.
- At the same time, productivity has been negative, increasing unit labor costs.
- Higher unit labor costs mean companies raise prices or reduce margins, either of which is a drag on economic growth.
- The Federal Reserve will likely maintain tight financial conditions to stop a wage-price spiral.



Source: Cornerstone. Data as of December 31, 2022.

Policy response

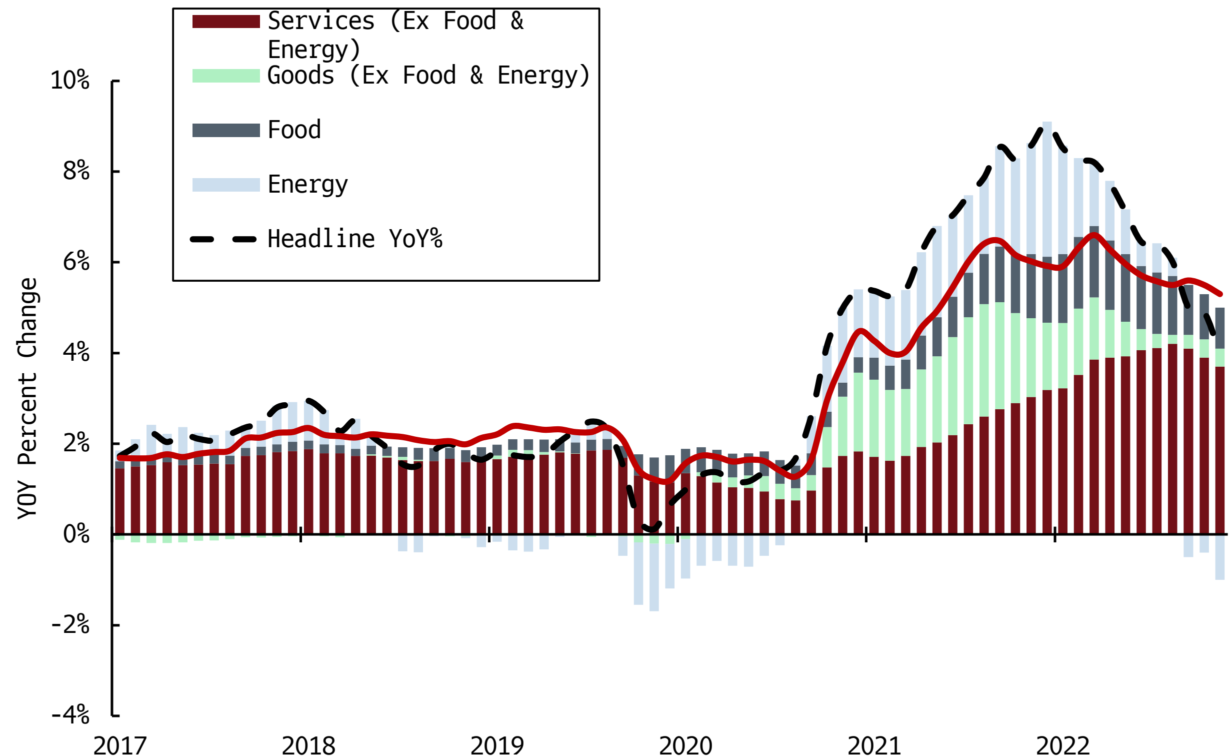
1 Core CPI remains high

2 Tight monetary policy

3 Yield curve inversion

CPI remains elevated

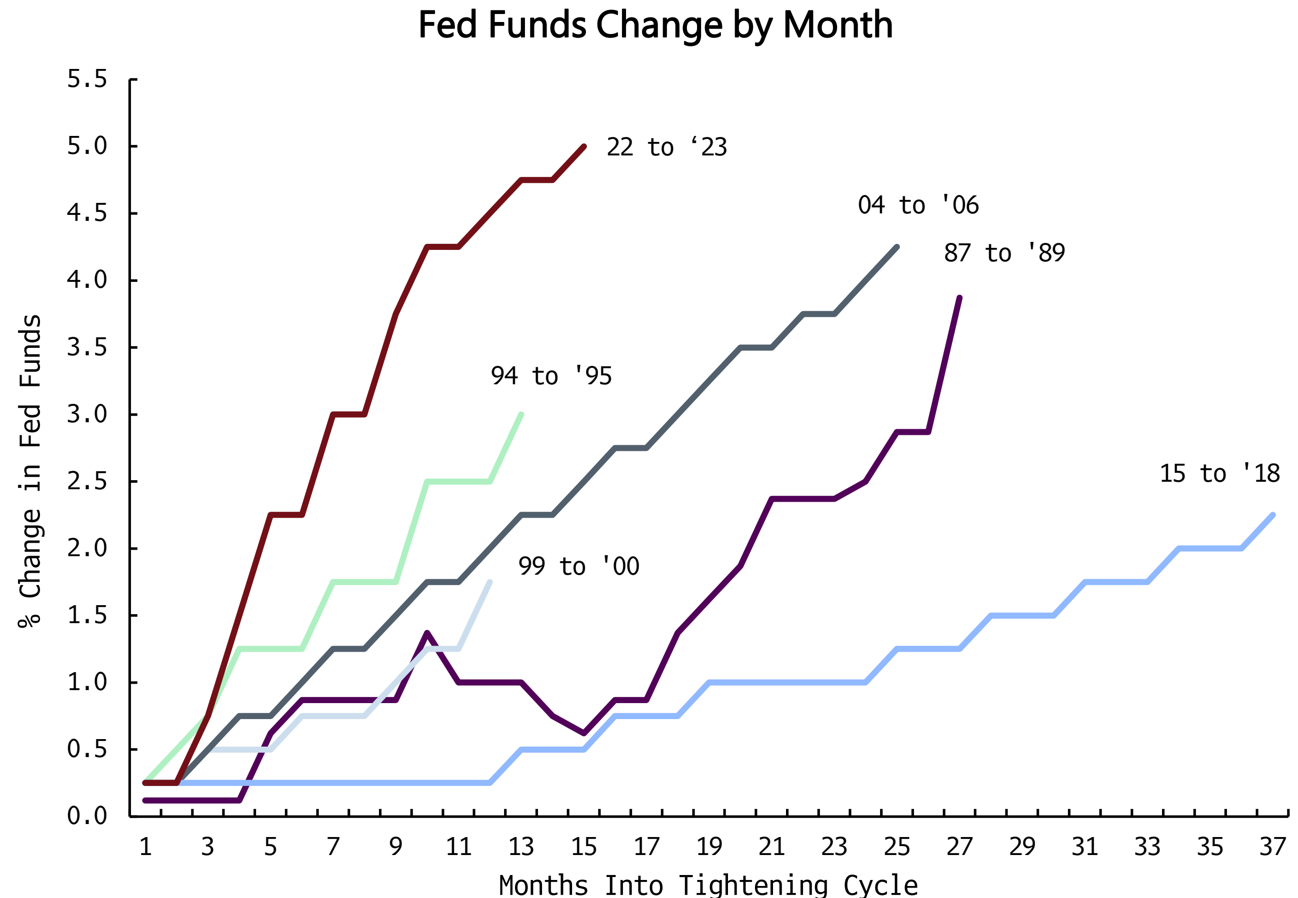
- Headline inflation is moderating rapidly but remains well above prior peaks in the past 30 years.
- Core inflation remains uncomfortably high, with wage pressure driving higher prices.
- The Federal Reserve remains committed to its 2% inflation target, and rates are running well above that level.
- The Fed will maintain its hawkish view until both current inflation abates and inflation expectations cool.



Source: Bureau Labor and Statistics. Data as of May 31, 2023.

Rising rates may stifle demand

- Financial conditions have tightened faster than they have in 40 years.
- The Federal Reserve has now raised rates to 5-5.25%
- Despite rate increases, economic growth remains positive, and inflation remains above target.
- Additional rate increases are expected.



Source: Bloomberg, June 30, 2023.

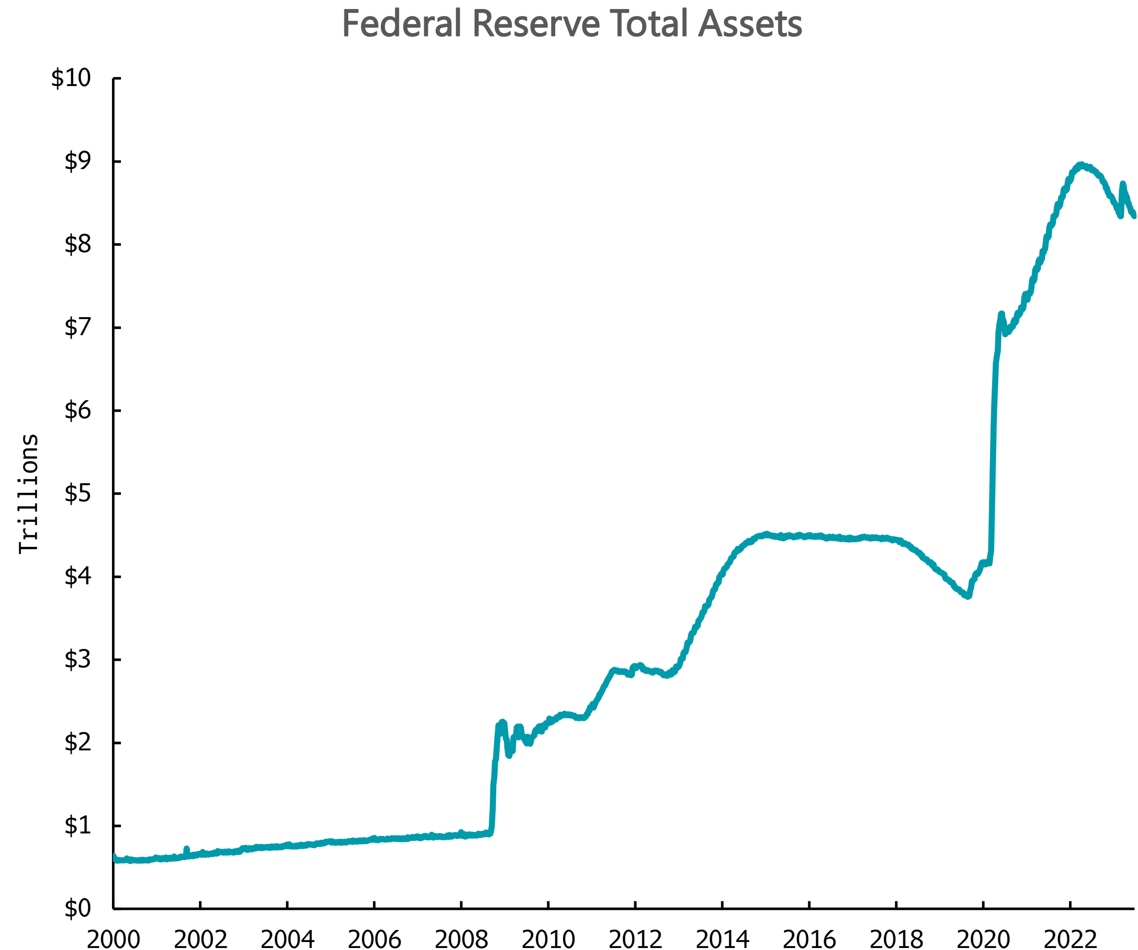
The Fed balance sheet has peaked

- After years of balance sheet expansion the Federal Reserve is shrinking its balance sheet.

- In response to a bank run in March 2023, the Fed increased its lending of reserves, reversing some of its balance sheet declines.

- If inflation remains firm, the Fed may accelerate its balance sheet reduction via bond sales.

- Reducing the size of the Fed's balance sheet is an



Source: Bloomberg. Data shown as of June 30, 2023.

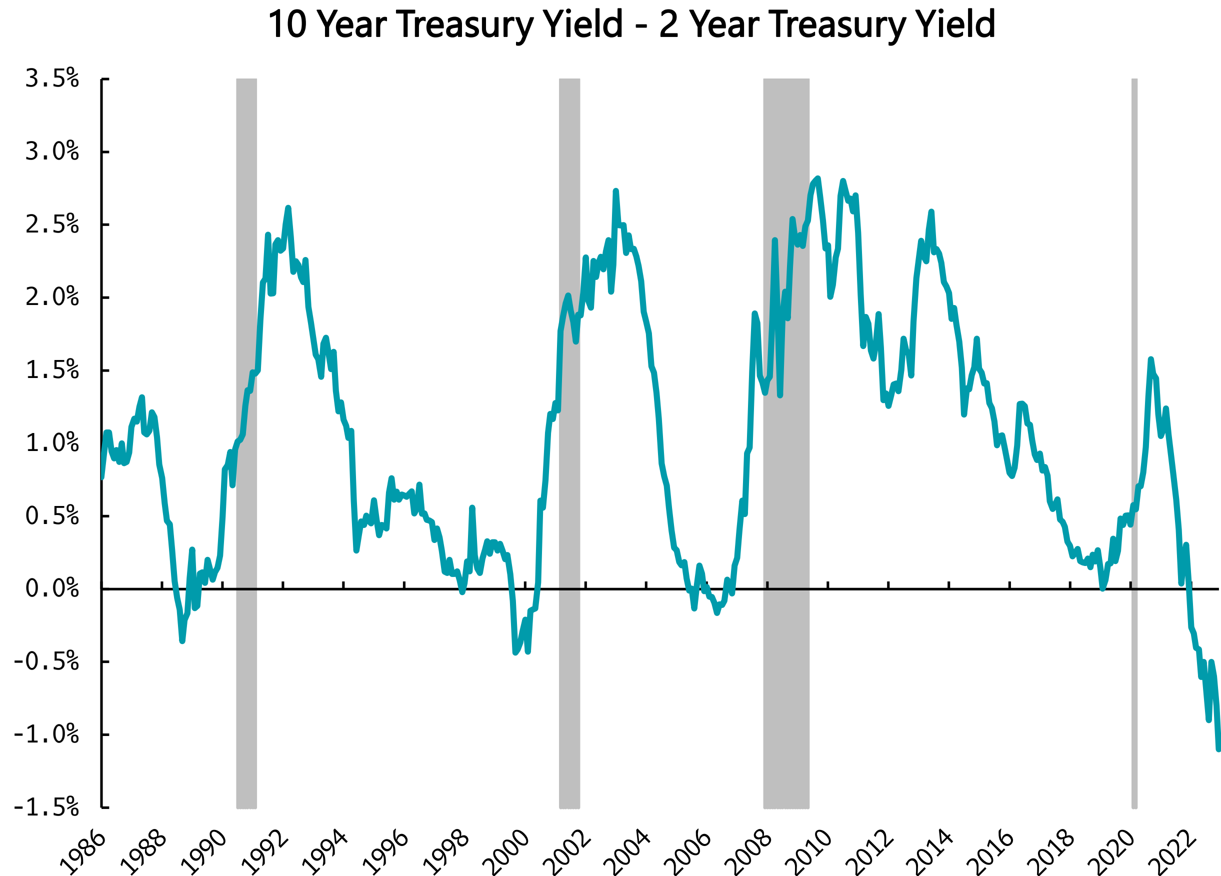
Inflation expectations are key metric

- As the Federal Reserve began its tightening cycle, inflation expectations turned lower.
- Recent data on expectations has been volatile.
- The Fed fears losing control of inflation expectations as that would create a significant monetary challenge.

Source: Bloomberg. Data shown as of June 30, 2023.

Yield curve inversion is significant

- The 2 year -10 year yield curve has inverted, meaning near-term rates are higher than longer-term rates.
- Inversions often indicate a recession, and we haven't seen an inversion of this magnitude in decades.
- It's always dangerous to say things are different this time, so an inverted yield curve is something we are watching with great interest, given the economic slowdown we anticipate.



Source: Bloomberg. Data shown as of June 30, 2023.

Market pulse

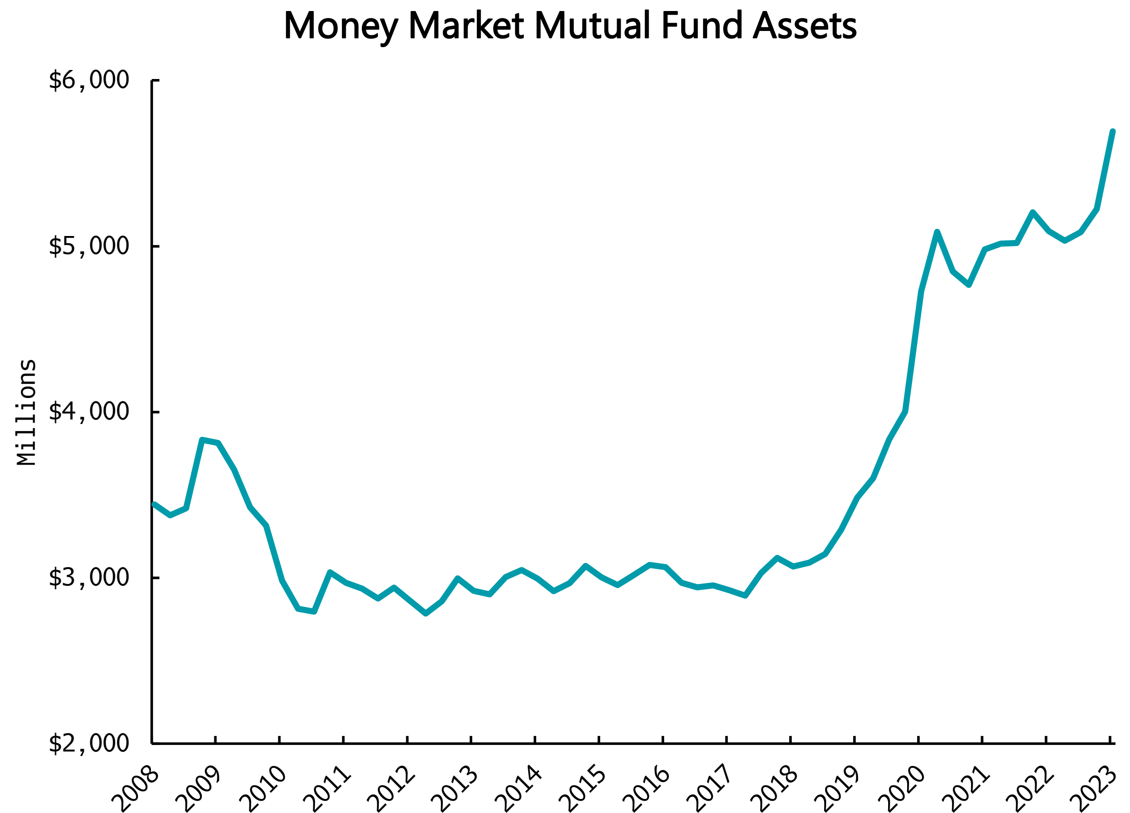
1 Higher fixed income yields

2 Equity market valuation

3 Alternative investments

Yield is everywhere now

- With short yields near 5%, investors are flocking to money market mutual funds, Treasury bills and CDs.
- System wide, domestic bank deposits have stabilized.
- M2 growth has turned negative but the “stock” of money in the economy is still very high.



Source: Bloomberg Data shown as of March 31, 2023.

Bond market yields increased

- Government bond yields are trading near the highest yields since the 2008 financial crisis.
- Investment-grade bond yields are beginning to appear attractive as rates approach 20-year highs.
- Bonds may represent attractive value at these levels if inflation continues to subside from recent levels, as we expect.
- One note of caution is that credit spreads remain subdued and may have the potential to widen if a recession does occur.

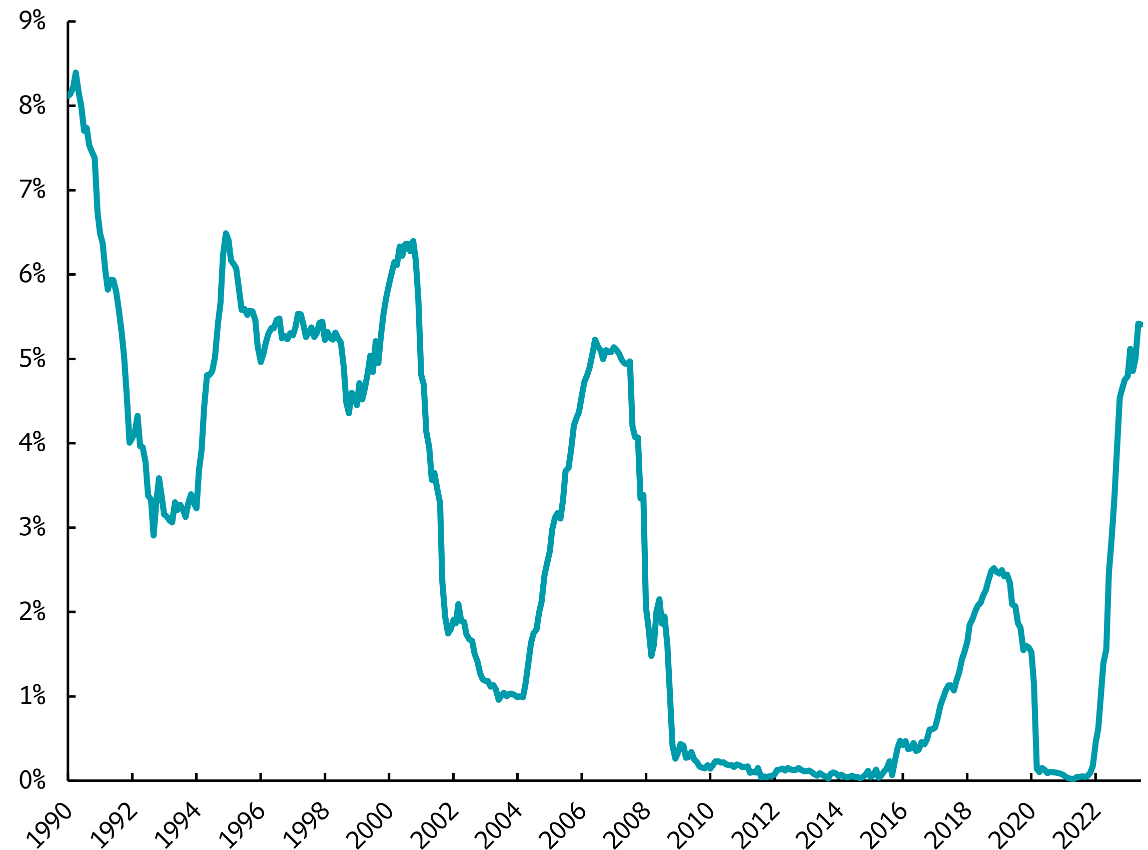
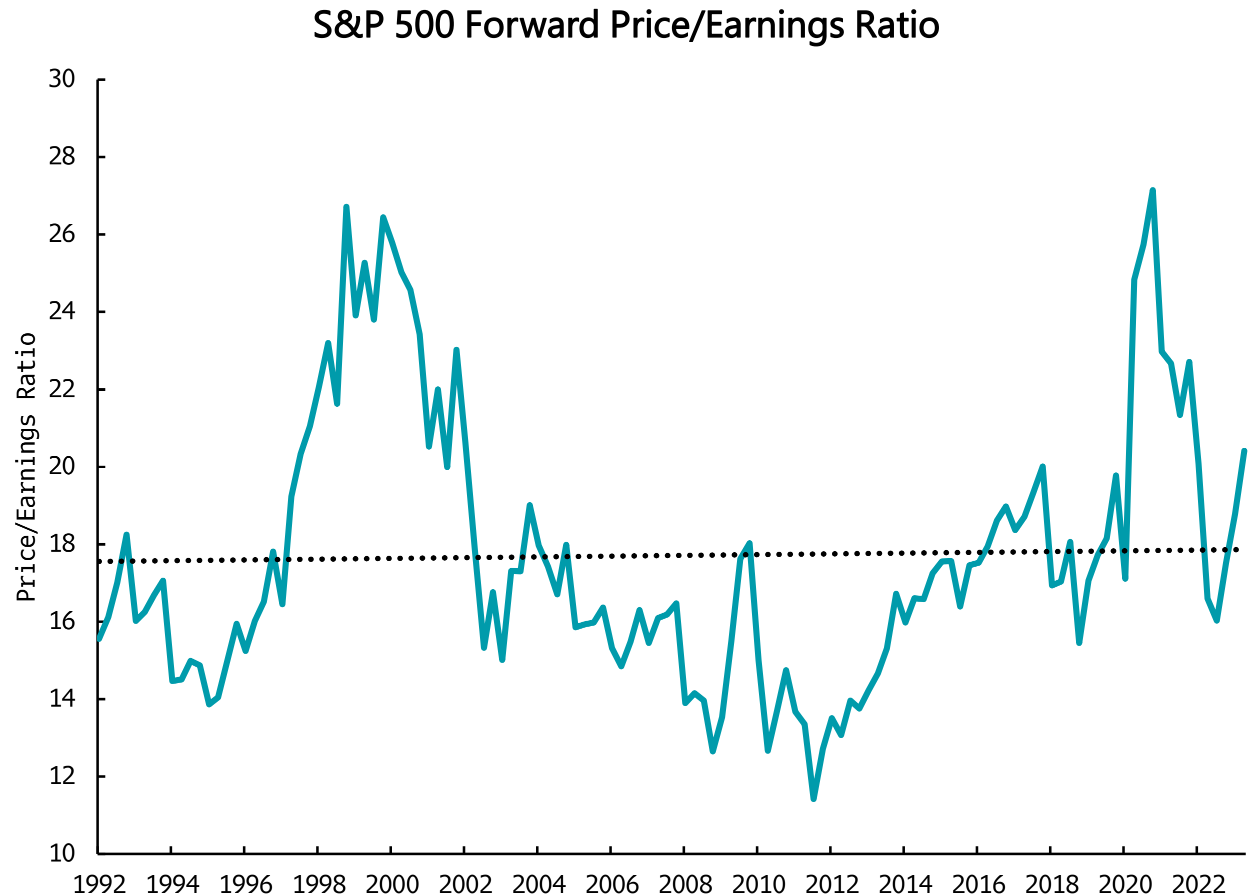


Chart depicts 6 month generic government bonds.
Source: Bloomberg. Data shown as of June 30, 2023.

S&P 500 P/E valuation remains rich

- Multiples are above average and risky in our view, given the risk of recession and the backdrop of higher rates.
- Consensus expectations are that 2023 earnings will be higher than 2022. However, there are risks to that assumption.
- Inflation and higher rates are headwinds to both earnings and multiples.



Source: Bloomberg. Data shown as of June 30, 2023.

Industry concentration

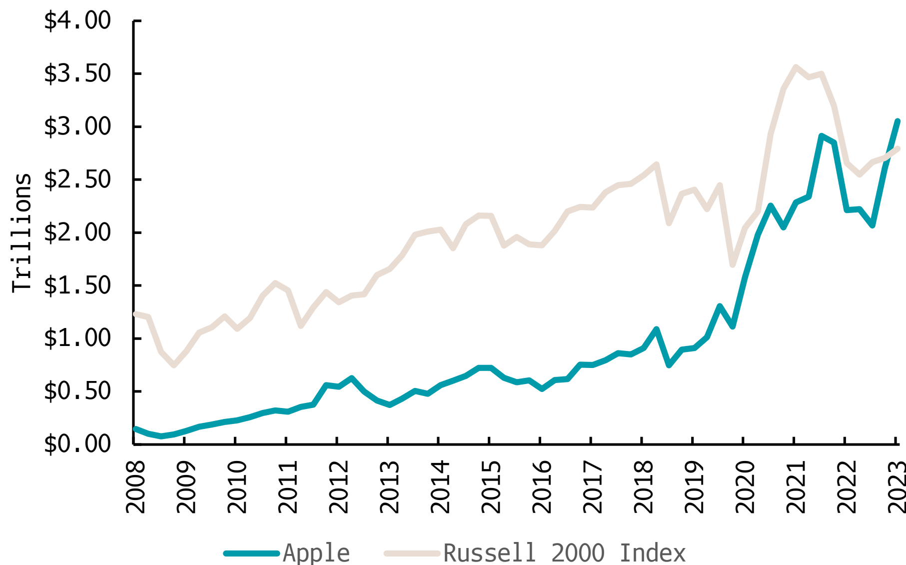
- S&P 500 index returns are largely driven by the highly weighted components of the index.
- Nearly 75% of the S&P 500 market cap gains this year have been driven by just eight companies, with four stocks accounting for over 50%.
- The level of performance dispersion between the Dow Jones, the S&P 500 and the NASDAQ is material.

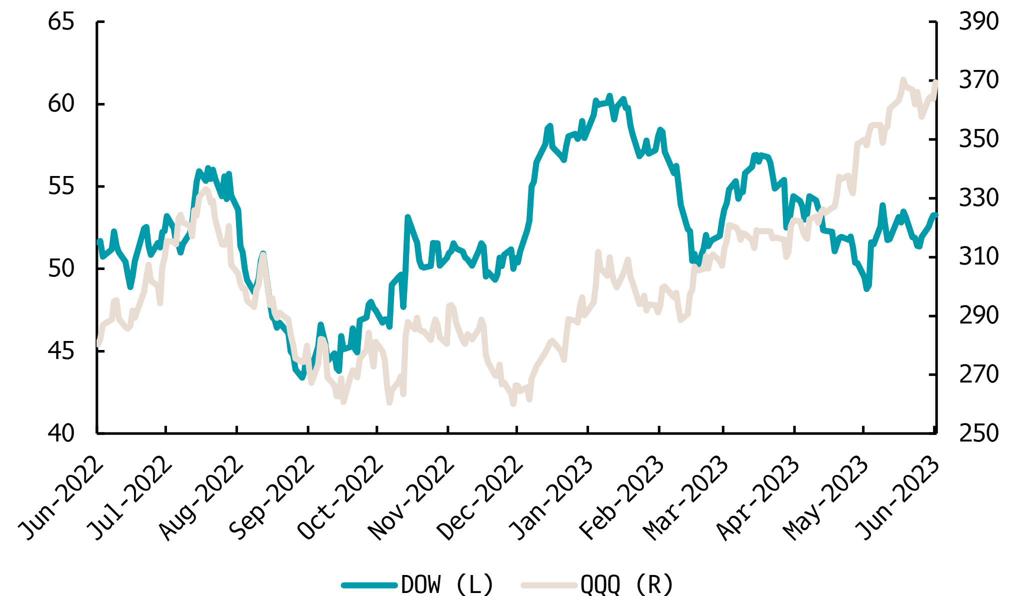
Megacap Tech Stocks	1 Month Total Return	3 Month Total Return	YTD Total Return
AAPL	7.20%	17.79%	49.72%
MSFT	1.53%	18.38%	42.66%
NVDA	7.58%	52.31%	189.54%
AMZN	4.92%	26.21%	55.19%
META	5.27%	35.41%	138.47%
TSLA	22.34%	26.18%	112.51%
GOOG	-3.40%	16.32%	36.33%
GOOGL	-3.99%	15.40%	35.67%
NFLX	9.99%	27.50%	49.38%

Source: Bloomberg. Data shown as of June 30, 2023.

Market narrowness

- As the market continues its rise, much of the returns have been driven by mega-cap tech stocks.
- Apple now has a market cap of $3 trillion, exceeding the entire market cap of the Russell 2000.
- Artificial intelligence has lifted technology stocks in hopes of strong uptake and massive productivity improvement.

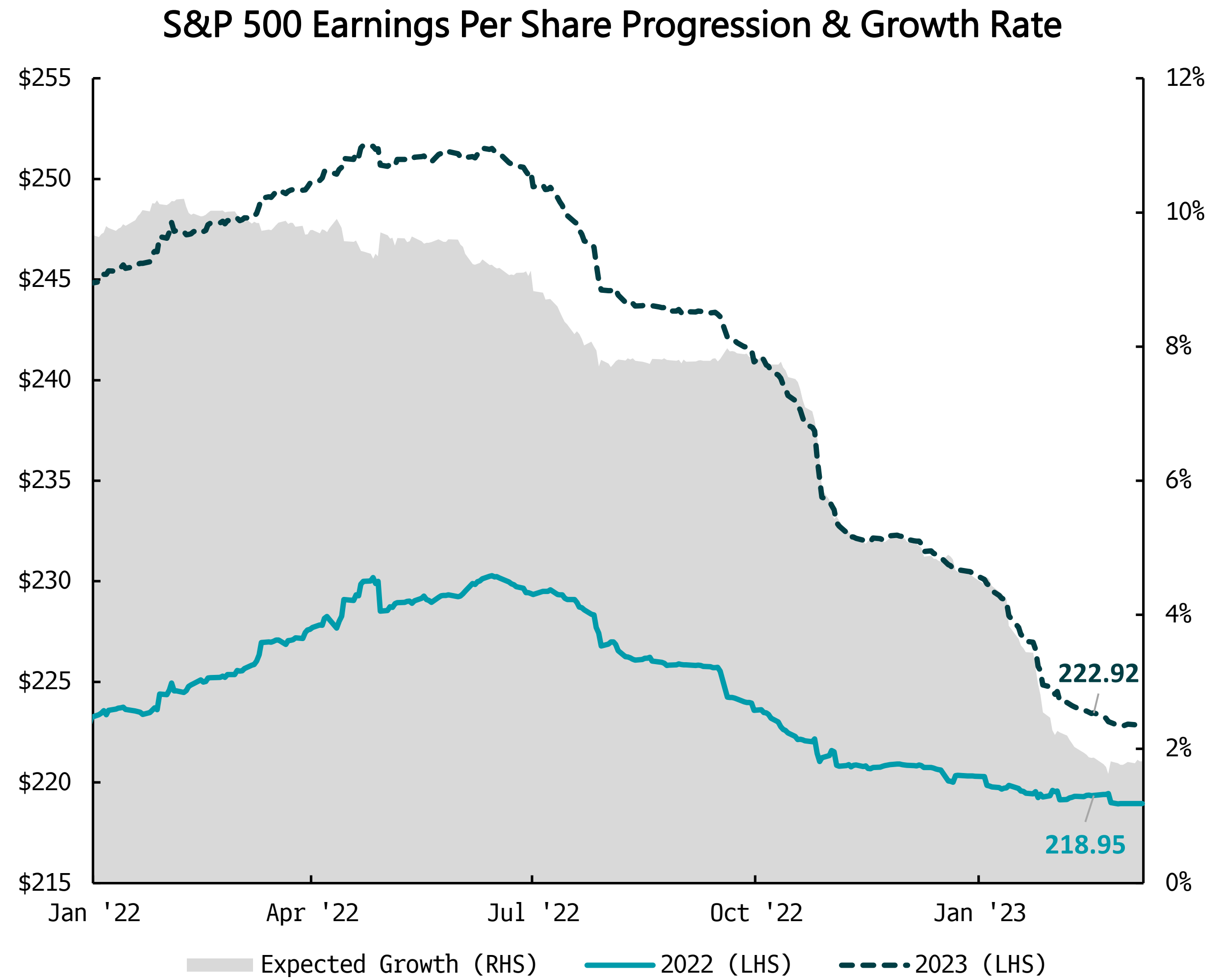




Source: Bloomberg. Data shown as of June 30, 2023.

Earnings estimates have fallen

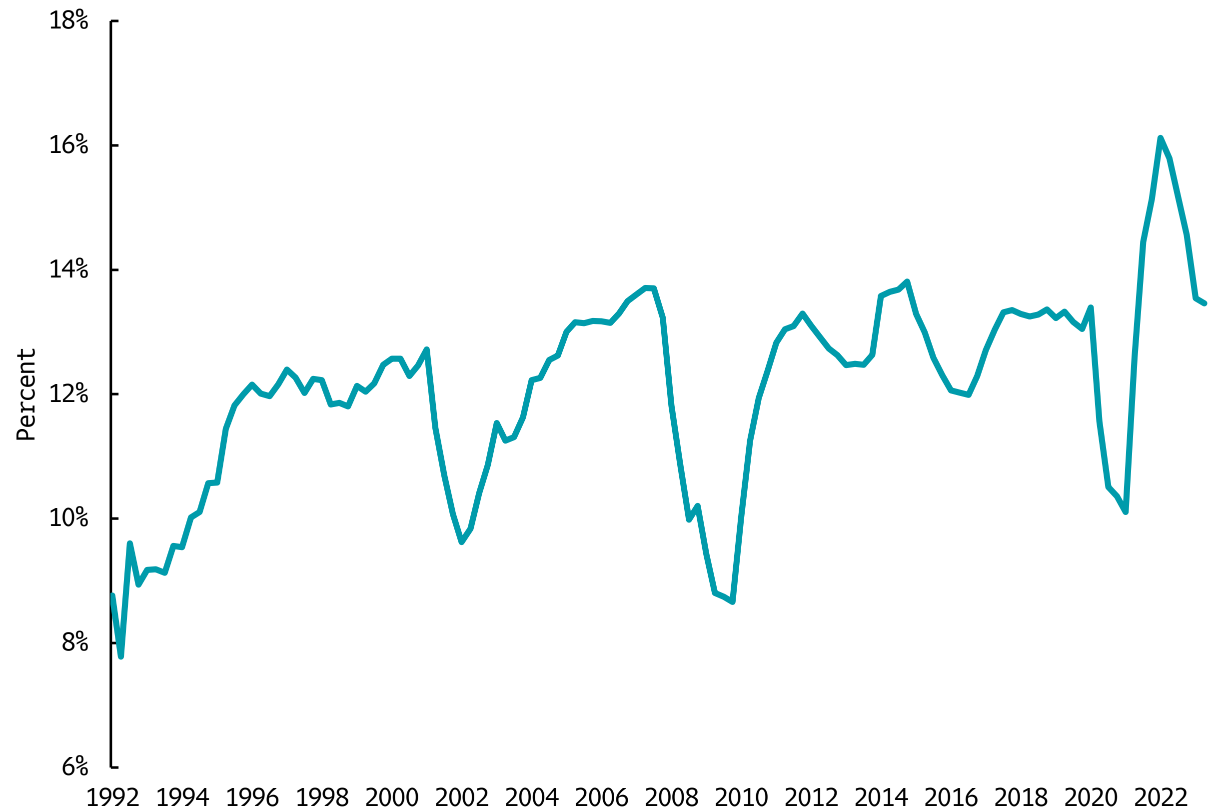
- Earnings estimates for 2022 and 2023 fell to reflect the slow-growth, high-inflation environment.
- Currently, 2024 earnings are expected to be higher than 2023, as the market is not forecasting a recession.
- The chart displays earnings estimates. Estimates from Bloomberg tell a different story, as some consensus estimates exclude non-recurring expenses.



Source: Strategas, Data shown as of March 9, 2023.

Operating margins falling from COVID peak

- Corporate margins expanded as we worked our way through the pandemic.
- As real demand has slowed, the ability to pass higher costs to consumers has diminished, impacting margins.
- As margins return to more normal levels, earnings for companies will be under pressure.
- A recession would likely drive margins substantially lower, negatively impacting corporate earnings.



Source: Bloomberg. Data shown as of June 30, 2023
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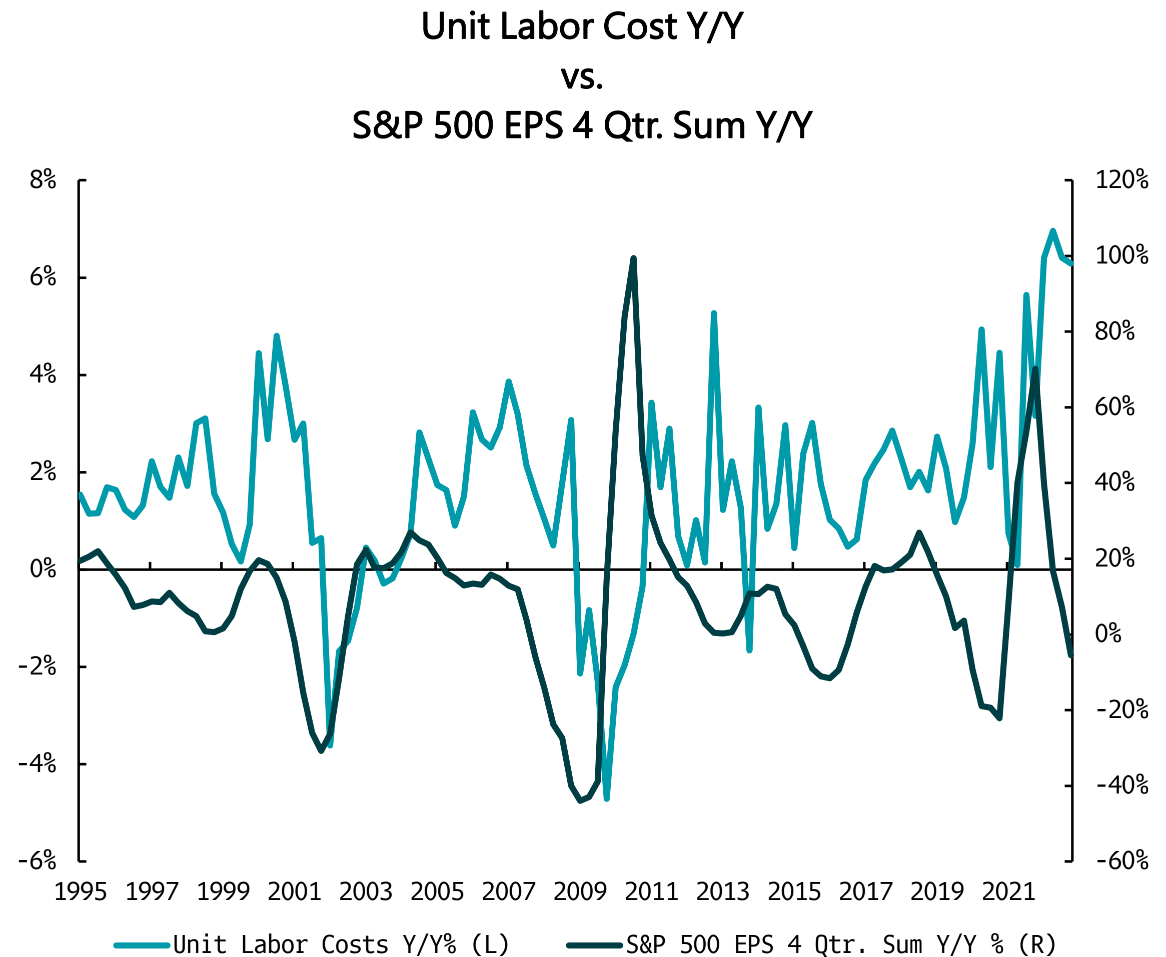
Wage pressure remains high

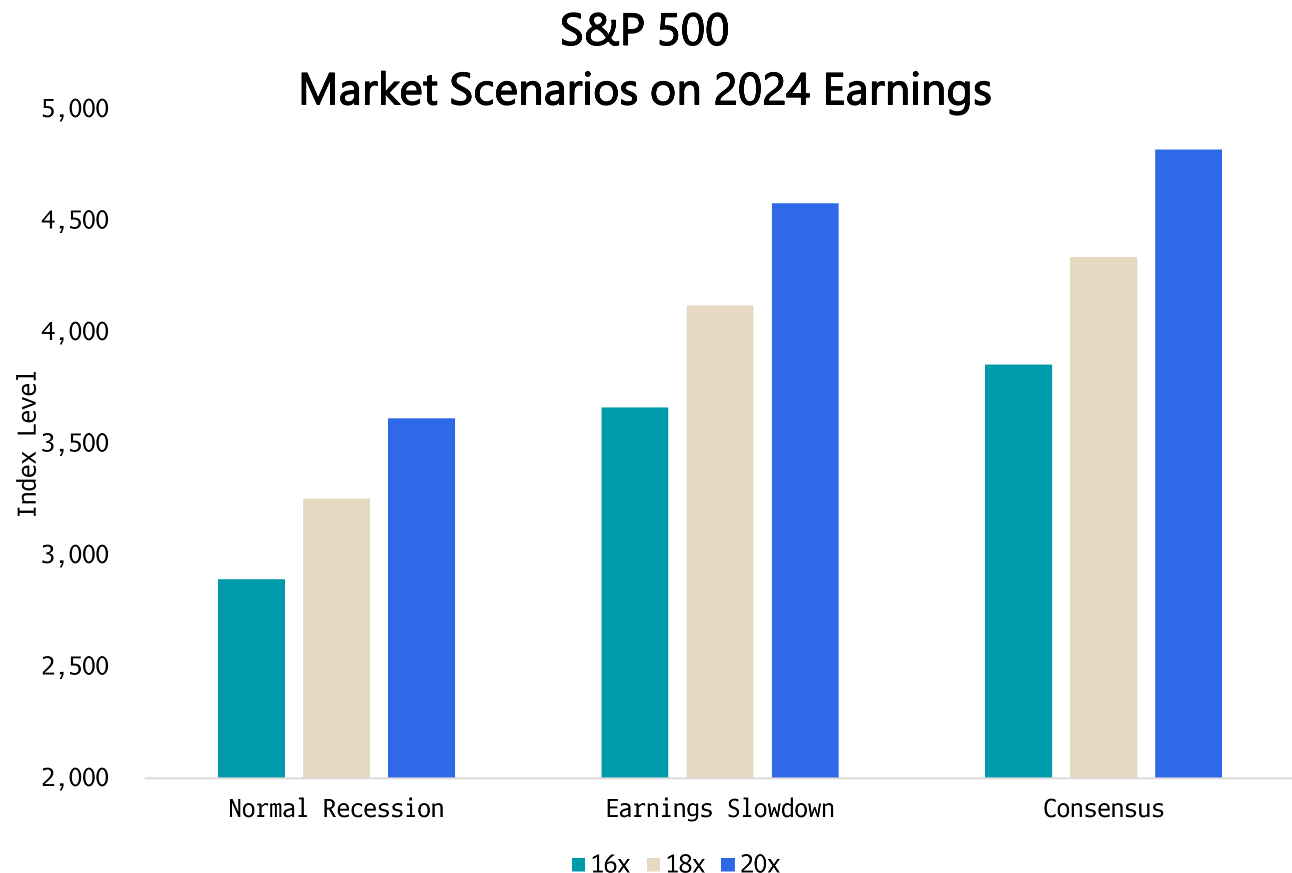
- Wages continue to increase, and historically, earnings growth has declined as wages rise.
- With unit labor costs increasing and consumer spending slowing, margins are at risk for most operating businesses.
- Lower margins would, of course, impact earnings.
- The market is not priced for a decline in earnings, as estimates remain for earnings growth in 2023 and 2024.



Source: Cornerstone. Data shown as of December 31, 2022.

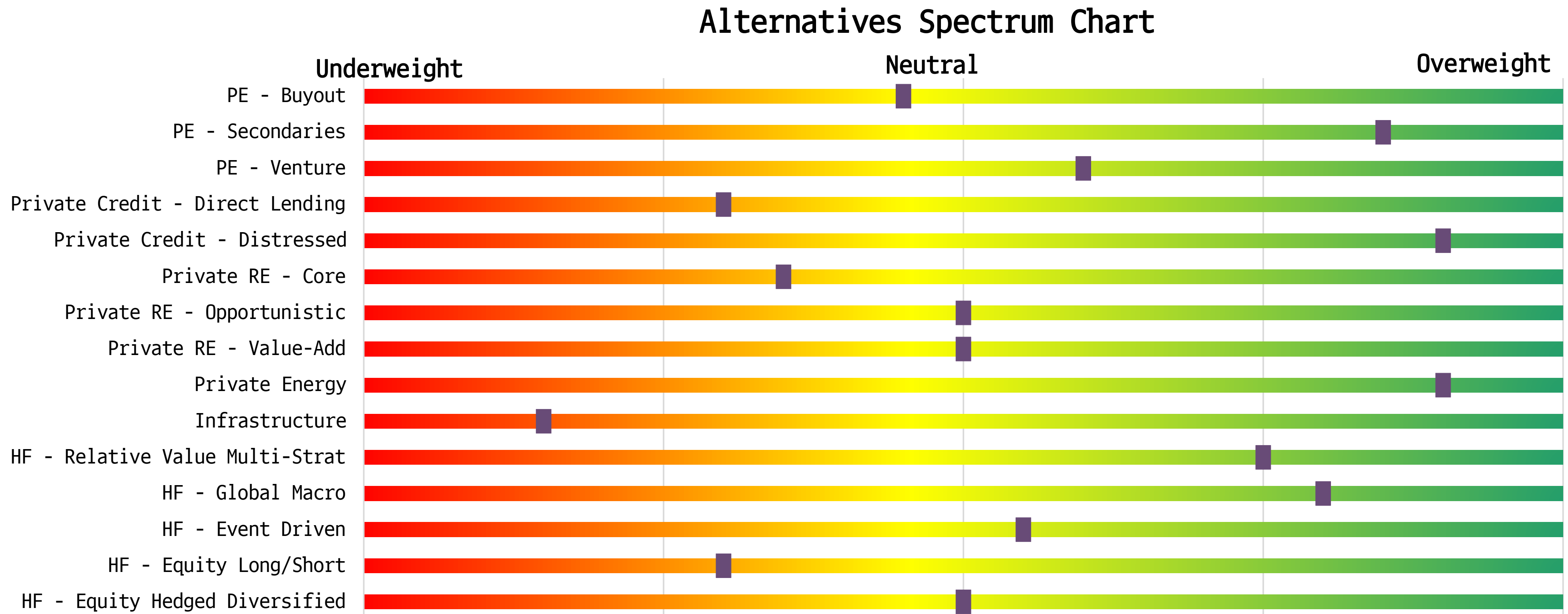
U.S. equity market scenarios

- Looking at 2024 earnings, the consensus appears to be pricing in a soft landing, or the fabled no-landing, as earnings expectations are 10% higher than 2023.
- In a normal recession, where earnings drop 25%, equity markets would suffer further losses.
- Higher taxes due to the expiration of R&D tax credits also does not appear to be reflected in estimates.



Source: Cavanal Hill. Data shown as of May 10, 2023.
Values assume consensus earnings per share (EPS) of $241 for 2024, $228.95 assuming an earnings slowdown in 2024, and $180.75 assuming a normal recession in 2024.

Alternatives: Our 2023 outlook



Market expectations

- Deal activity in the private market is slowing.
- Private equity facing downward fair market value adjustments.
- Key identified risks include inflation, aggressive Fed, COVID variants, and China/U.S. relations.

Areas of emphasis

- In private equity, we favor opportunistic credit and PE secondaries.
- High current income secured by assets is attractive
- For hedge funds, we favor uncorrelated returns across multiple strategies.

Market pulse summary

1. As interest rates rise and as spreads widen across the globe, we see pockets of opportunity emerging in the U.S. investment-grade bond market.

2. International markets have also adjusted. International fixed income yields have risen providing an opportunity to neutralize underweights while overseas equity market valuations are depressed relative to domestic equities.

3. Domestic equities valuations have declined from peak levels to reflect higher interest rates and slower growth. However, we believe there are further risks to the downside for both earnings and multiples.

4. The federal debt may begin to crowd out some investments and is a growing risk to financial market stability.

5. Alternative investments remain a potential opportunity for investment as distressed assets often provide attractive returns for talented managers.

Broad market overview

Returns (%)	1 Mo.	YTD	1 Yr.	3 Yrs.	5 Yrs.	10 Yrs.
Capital Markets						
DJ Industrial Average TR USD	4.68	4.94	14.23	12.31	9.59	11.26
NASDAQ 100 TR USD	6.55	39.35	33.13	15.25	17.66	19.23
Russell 3000 TR USD	6.83	16.17	18.95	13.90	11.39	12.34
S&P 500 TR USD	6.61	16.89	19.59	14.61	12.31	12.86
Domestic Large Cap Equities						
Russell 1000 TR USD	6.75	16.68	19.36	14.10	11.92	12.65
Russell 1000 Value TR USD	6.64	5.12	11.54	14.31	8.11	9.22
Russell 1000 Growth TR USD	6.84	29.02	27.11	13.74	15.14	15.75
Domestic Mid Cap Equities						
Russell Mid Cap TR USD	8.34	9.01	14.92	12.51	8.46	10.33
Russell Mid Cap Value TR USD	8.67	5.23	10.50	15.05	6.84	9.03
Russell Mid Cap Growth TR USD	7.73	15.94	23.13	7.63	9.72	11.53
Domestic Small Cap Equities						
Russell 2000 TR USD	8.13	8.09	12.31	10.83	4.21	8.26
Russell 2000 Value TR USD	7.94	2.50	6.01	15.44	3.54	7.29
Russell 2000 Growth TR USD	8.29	13.55	18.53	6.10	4.22	8.83
International Equities						
MSCI EAFE NR USD	4.55	11.67	18.77	8.94	4.39	5.41
MSCI EAFE Value NR USD	5.62	9.28	17.40	11.34	2.93	4.15
MSCI EAFE Growth NR USD	3.53	14.18	20.20	6.28	5.44	6.43
MSCI ACWI Ex USA NR USD	4.49	9.47	12.72	7.23	3.52	4.75
MSCI EM NR USD	3.80	4.89	1.75	2.32	0.93	2.95
Cash & Fixed Income						
FTSE Treasury Bill 3 Mon USD	0.43	2.39	3.75	1.33	1.57	0.98
Bloomberg US Agg Bond TR USD	-0.36	2.09	-0.94	-3.97	0.77	1.52
Bloomberg Gbl Agg Ex USD TR Hdg USD	0.16	3.61	1.51	-2.15	0.95	2.48
Bloomberg US Corporate High Yield TR USD	1.67	5.38	9.06	3.14	3.36	4.43
Alternatives						
MSCI US REIT GR USD	5.05	5.46	-0.09	8.89	4.55	6.39
Bloomberg Commodity TR USD	4.04	-7.79	-9.61	17.83	4.73	-0.99

Source: Morningstar. Data shown as of June 30, 2023.

Asset class quilt

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	
38.82%	13.69%	5.67%	21.31%	37.28%	3.17%	36.39%	38.49%	28.71%	-7.54%	29.02%	Best Performing
34.76%	13.45%	1.38%	17.34%	30.21%	0.01%	31.49%	19.96%	27.60%	-9.76%	16.89%	
33.48%	13.22%	1.36%	17.13%	25.03%	-1.51%	30.54%	18.40%	25.16%	-11.19%	11.67%	
32.53%	13.05%	0.55%	13.80%	21.83%	-2.08%	26.54%	18.31%	22.58%	-13.01%	9.01%	
32.39%	8.79%	-0.81%	11.96%	18.52%	-4.38%	25.52%	17.10%	14.82%	-14.45%	8.09%	
22.78%	5.97%	-2.44%	11.19%	14.65%	-8.27%	22.01%	7.82%	11.26%	-17.32%	5.38%	
7.44%	4.89%	-3.83%	7.08%	13.66%	-9.06%	18.44%	7.51%	5.28%	-18.11%	5.12%	
1.18%	2.45%	-4.41%	4.90%	7.50%	-11.01%	14.32%	7.11%	-1.40%	-20.09%	4.89%	
-2.02%	-2.19%	-4.47%	2.65%	3.54%	-13.79%	8.72%	3.94%	-1.54%	-20.44%	3.61%	Worst Performing
-2.60%	-4.90%	-14.92%	1.00%	2.48%	-14.58%	7.57%	2.80%	-2.54%	-29.14%	2.09%	

S&P 500
Large Cap Value
Large Cap Growth

Mid Cap Blend
Small Cap Blend
Foreign Bonds

Foreign Stocks
Emerging Markets
High Yield

Bonds

Source: Morningstar. Data shown as of June 30, 2023.

Equity returns across periods

1 Month

	Value	Core	Growth
Large	6.6	6.6	6.8
Mid	8.7	8.3	7.7
Small	7.9	8.1	8.3
Int'l	5.2	4.5	3.8

1 Year

	Value	Core	Growth
Large	11.5	19.59	27.1
Mid	10.50	14.9	23.1
Small	6.0	12.3	18.5
Int'l	12.2	12.7	13.3

3 Year

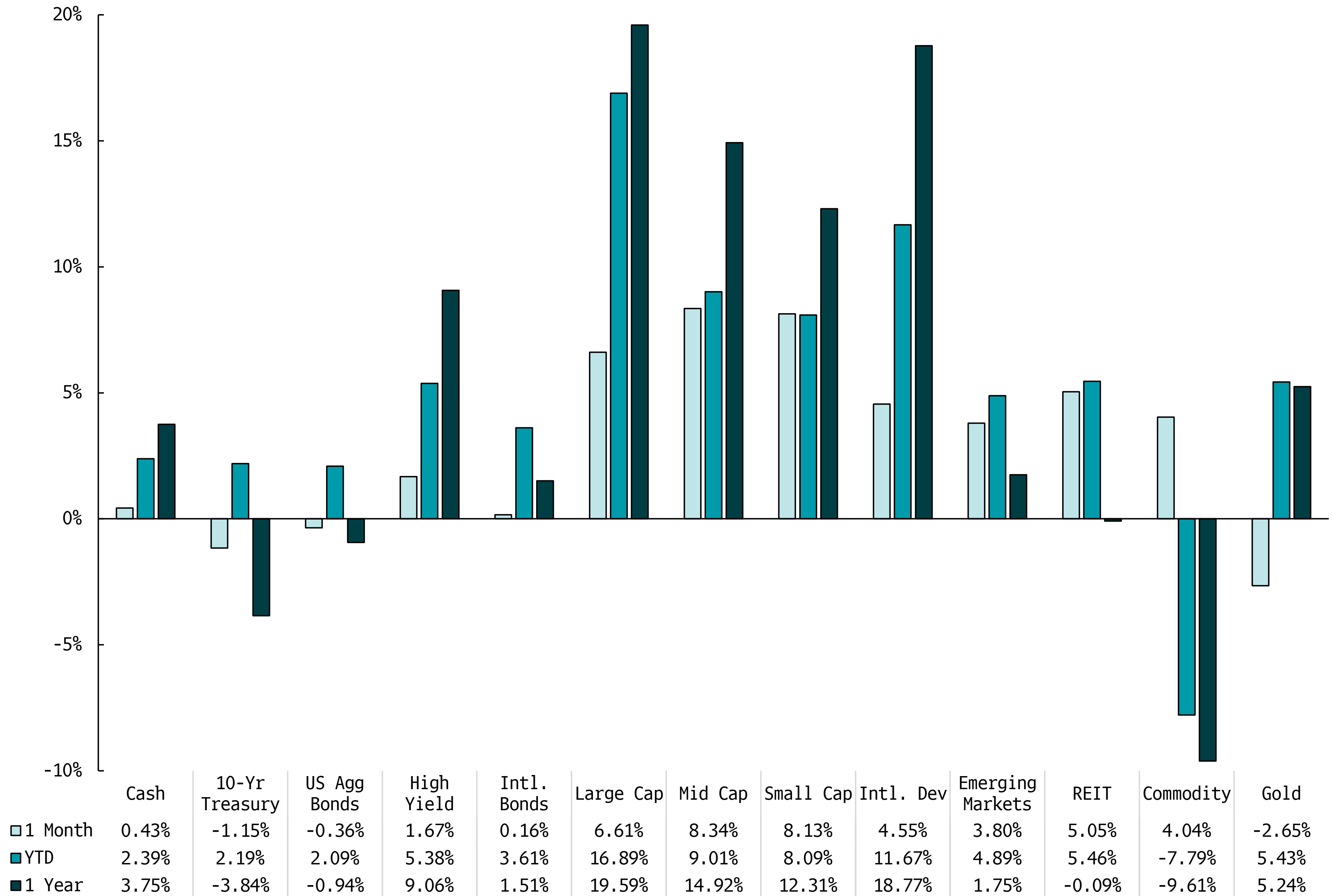
	Value	Core	Growth
Large	14.3	14.6	13.7
Mid	15.0	12.5	7.6
Small	15.4	10.8	6.1
Int'l	10.4	7.2	4.0

5 Year

	Value	Core	Growth
Large	8.1	12.3	15.1
Mid	6.8	8.5	9.7
Small	3.5	4.2	4.2
Int'l	2.7	3.5	4.1

Source: Morningstar. Returns in the style boxes are represented by the Russell indexes and the S&P 500 for the Large Cap Core space. Returns in the international boxes are represented by the MSCI ACWI Ex USA indexes. Boxes shown in red represent returns below 0%. Purple boxes represent returns between 0% and 10%. Returns above 10% are shown in violet.
Data shown as of June 30, 2023.

Market summary



	Cash	10-Yr Treasury	US Agg Bonds	High Yield	Intl. Bonds	Large Cap	Mid Cap	Small Cap	Intl. Dev	Emerging Markets	REIT	Commodity	Gold
1 Month	0.43%	-1.15%	-0.36%	1.67%	0.16%	6.61%	8.34%	8.13%	4.55%	3.80%	5.05%	4.04%	-2.65%
YTD	2.39%	2.19%	2.09%	5.38%	3.61%	16.89%	9.01%	8.09%	11.67%	4.89%	5.46%	-7.79%	5.43%
1 Year	3.75%	-3.84%	-0.94%	9.06%	1.51%	19.59%	14.92%	12.31%	18.77%	1.75%	-0.09%	-9.61%	5.24%

Source: Morningstar. Data shown as of June 30, 2023.

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