

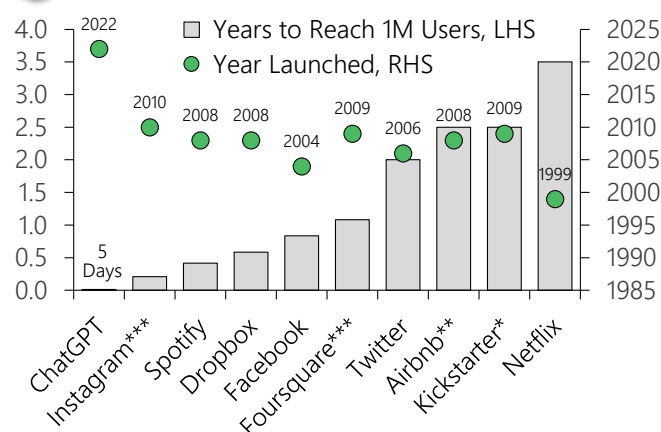
July 2023

## GLOBAL INVESTMENT OUTLOOK AND STRATEGY

- AI Will Shape Financial Markets and Economy for Years To Come
- “Higher for Longer” Interest Rates Will Test U.S. Economy’s Resiliency
- China’s Ebbing Economic Momentum Triggering Policy Support
- Positive Real Rates Lessen Need for More Fed Fund Rate Increases
- Equity Markets Focused on Tech/AI, but Attractive Groups Elsewhere

### Mega-Cap Technology Stocks Reassert Market Leadership So Far in 2023

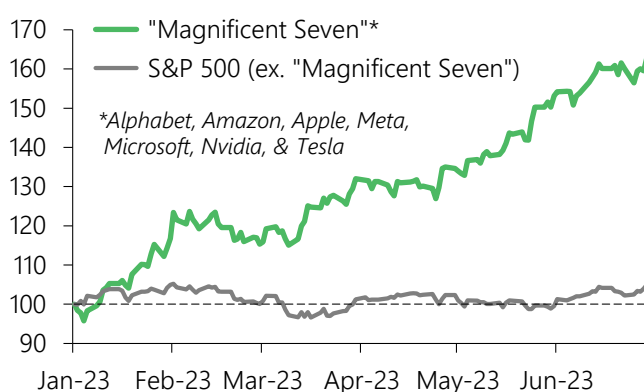
#### 1 ChatGPT Launch Catalyzed 2023 Tech Rally



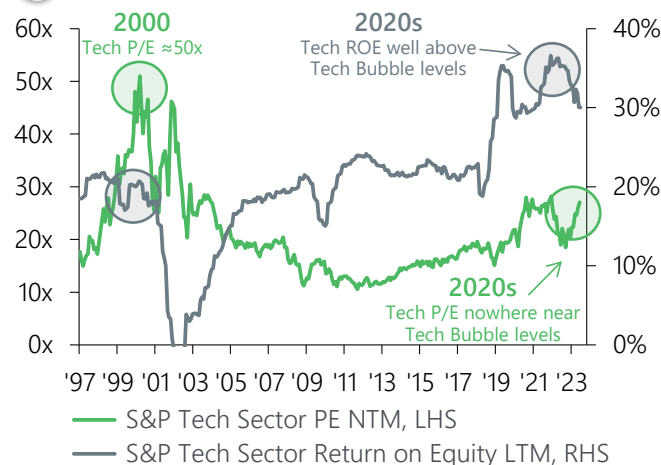
\*1 million backers, \*\*1 million nights booked, \*\*\*1 million downloads

#### 2 Leading to Very Narrow Market Leadership

S&P 500 Index Price Returns  
12/31/22 = 100

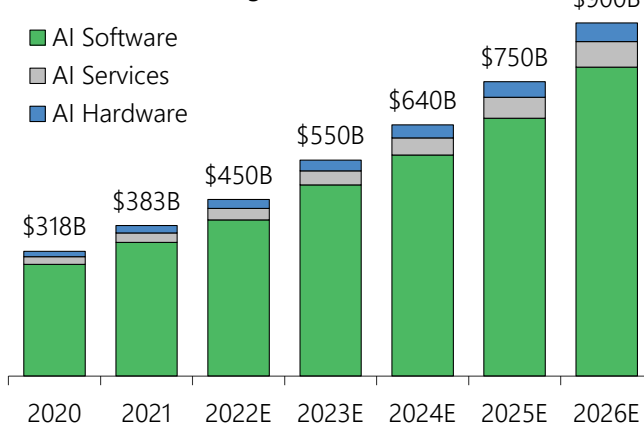


#### 3 Tech Valuation Stretched but Not a Bubble



#### 4 AI Deployment Will Boost Tech Earnings

Global Artificial Intelligence Market Size



Sources: Statista, FactSet, Piper Sandler, IDC, 6/30/23

## Artificial Intelligence: Hype Versus Reality

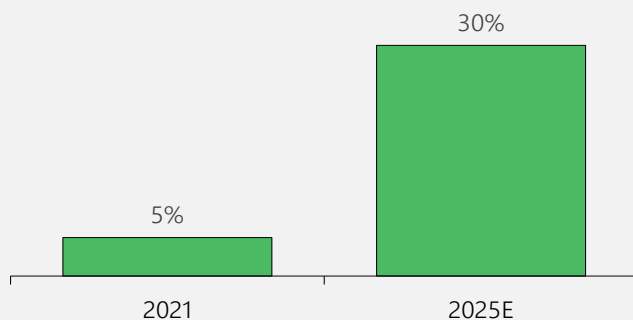
Equity markets have rebounded, mainly on the heels of the exceptional performance of the technology sector, as the potential impact of artificial intelligence captured investors' attention. While we must be keenly aware of the potential for a "hype" cycle as expectations surpass reality, we believe that artificial intelligence technology advancements will transform the overall economy and the financial markets.

Artificial intelligence (AI) is a catch-all term for systems that imitate human intelligence, making them capable of learning, reasoning, and decision-making. The rapid advancement of generative AI, which uses algorithms to create content (e.g., audio, images, videos, etc.), has raised AI's public profile and, undoubtedly, accelerated corporate adoption. Advances in AI have progressed steadily for many years. However, ChatGPT's launch in November 2022 marked a significant turning point regarding user adoption and investors' appreciation for how transformative AI will likely be.

Notably, technology adoption cycles are getting shorter and shorter; it took ChatGPT just five days to reach one million users, and it had one billion visits in just three months. According to BofA research, this is three times the adoption rate of TikTok and ten times as fast as Instagram. In this regard, the fear of missing out now prevailing in the equity markets is also occurring in the corporate community, potentially accelerating the pace of AI investment.

## Artificial Intelligence Adoption Accelerating

Estimated Percent Of Enterprises Implementing A.I.-Augmented Development and Testing Strategies

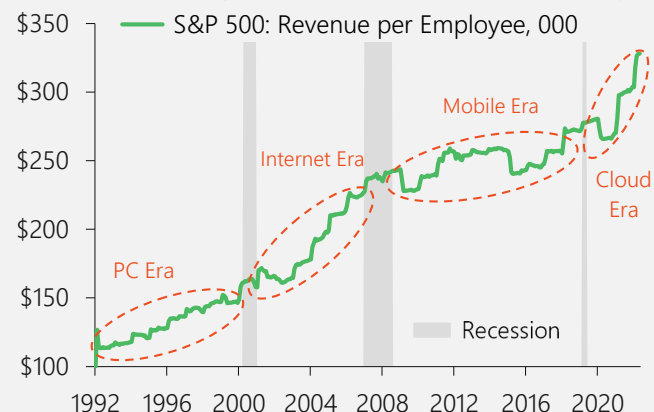


Source: BofA Research, 7/6/23

Despite AI's immense potential, the ultimate economic impact stemming from its adoption is highly uncertain. Nonetheless, several studies, including those by PWC, Accenture, and McKinsey, point to a sizeable economic boost due to productivity gains, cost savings (including labor substitution), and increased innovation. This AI-led growth should have a direct and outsized impact on corporate earnings. A recent Barclays report noted the past four tech cycles (e.g., PCs, internet, mobile, cloud)

coincided with robust productivity gains for companies within the S&P 500 Index. Significant gains from AI may be some years away. Still, it could provide a much-needed boost to corporate earnings as debt and demographic headwinds intensify, particularly in the U.S., Europe, China, and Japan.

## Artificial Intelligence Should Lift Productivity



Source: Barclays Research, 6/22/23

Aside from the technology sector, we anticipate AI will impact virtually every major segment of the economy, albeit to varying degrees. The sectors that may see the most considerable impact are financial services, retail/consumer, healthcare, and manufacturing. Although direct investment opportunities are limited, AI will also profoundly impact the legal and education sectors.

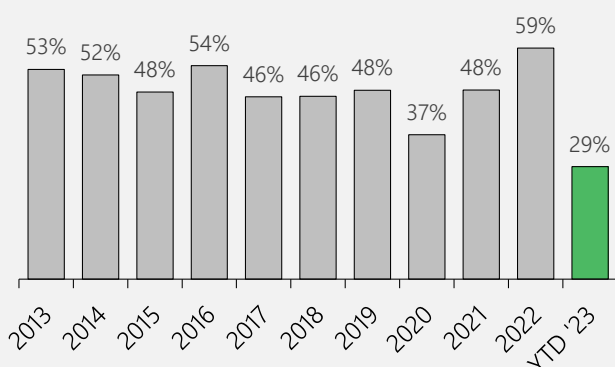
Of course, the promise of AI is not without its pitfalls. First, numerous studies highlight the potential for job losses as firms deploy AI, which will have considerable economic and societal repercussions. However, recent history shows that periods of significant technological change lead to productivity gains without a surge in unemployment. Second, since AI is resource-intensive, large corporations have an inherent advantage, given their ability to invest and deploy AI at scale. This "leg-up" will only amplify already-existing concerns that big firms are too powerful and squeezing out competitors to gain market share.

Unsurprisingly, calls for AI oversight have emerged as thought leaders and policymakers consider the risks. However, we are skeptical that meaningful regulation is realistic as AI continues to evolve rapidly across the globe. The technology's increasingly broad reach will make it difficult to determine what and how to regulate and who has ultimate supervision. Outside of targeted oversight in areas such as consumer privacy, we think the government's primary role will be to mitigate the potentially disruptive impact of AI's adoption on labor markets. In addition, legal battles over copyright and intellectual property issues are inevitable as AI-created content proliferates.

A handful of technology stocks has driven almost all of the year-to-date returns in the S&P 500, contributing to a narrow market breadth. The S&P 500 increased +16.9 percent in the first half of 2023, while the tech-heavy NASDAQ composite has gained +32.5 percent. Although “bubble” fears are pervasive, given the recent strong run in technology stocks, multiples are far from “dotcom bubble” extremes in 1999-2000. Besides, the sector’s financial strength and profitability metrics far exceed sector averages during that period and are currently superior to broad market averages. That said, valuations and technical considerations may constrain near-term upside as we suspect there is little room for further price-to-earnings multiple expansion.

### Market Breadth Weak Outside Tech Sector

Percentage of S&P 500 Stocks Outperforming Index

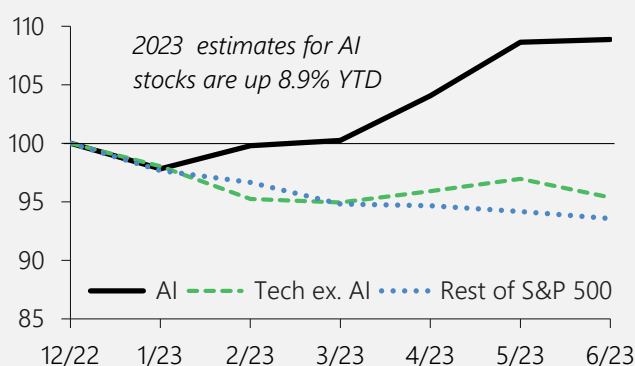


Source: FactSet, 6/30/23

Despite our enthusiasm for AI over the longer term, we are mindful of the speculation risks, especially given the current investor euphoria on AI. While the technology sector has broadly rallied on the heels of AI-driven zeal, we remain concerned over one simple fact: technology spending, in the aggregate, is cyclical. To this point, while earnings estimates have increased for the handful of companies most impacted by AI, analysts have cut estimates more broadly throughout the sector.

### Tech Sector Broadly Vulnerable to Macro Risk

2023 EPS Revisions, 12/31/2022 = 100



Source: Barclays Research, 6/22/23

Regarding investable themes within AI, we continue to see enticing opportunities in select hardware, software, and services. For instance, the accelerating build-out of AI infrastructure will require the most sophisticated semiconductors (graphics and microprocessors). Also, a reacceleration in data center capacity will benefit the suppliers of servers and associated components. Moreover, software companies that most effectively embed AI into their product portfolios stand to gain market share. Cybersecurity providers will likely see continued growth as cyber threats become more sophisticated as AI tools become more available to bad actors.

While hardly a contrarian view, the large technology companies appear remarkably well positioned in AI as their financial strength can fund and scale the daunting capital requirements for AI development, including hardware, software, energy costs, and engineering talent. “Training” an AI model is complex and expensive, but these firms have the resources, massive installed customer bases, and extensive datasets that are unique and critical for development.

In the near term, we expect tech-related “enablers” to be the greatest beneficiaries of AI adoption, but many early adopters will realize benefits in the intermediate to longer term. We are particularly optimistic about its impact within healthcare, as the industry is inherently data-intensive, making it ideal for AI applications. The biopharma drug development process is a promising area for AI, where firms usually distill down thousands of pre-clinical drug targets to a few good candidates for human testing. While the cost savings of leveraging AI in drug development could be substantial, improving the probability of success in early-stage development could be a more significant value driver for the sector.

Also, many diagnostic firms use machine learning and proprietary algorithms to produce AI-based cancer risk assessments driven by ultrasound imaging. These technologies have dramatically cut ultrasound image interpretation time in some applications, increasing clinician productivity and improving disease detection.

While we are highly confident in AI’s transformative potential in the intermediate to longer term, we do not dispute that much has been priced into the valuations of the best-positioned firms nearer term. Accordingly, we believe adding to positions during bouts of market volatility is a prudent near-term strategy.



## Real GDP and Real GDI Paint Starkly Different Pictures of U.S. Economy

The Bureau of Economic Analysis recently raised its official first quarter 2023 real GDP growth estimate to +2.0 percent from +1.3 percent. Stronger exports and, to a lesser extent, consumer spending drove the upside versus the earlier estimate. The Atlanta Fed's GDPNow model also currently forecasts second-quarter real GDP growth of +2.3 percent, putting the U.S. expansion on solid footing. Even so, gross domestic income (GDI), which is basically the other side of the ledger and should theoretically equal GDP, paints a different picture. Real GDI fell -3.3 percent in the final quarter of 2022 and -1.8 percent in the first quarter of 2023, implying the economy is in at least a "technical" recession (Exhibit 1). Although the two measures of economic activity have never aligned perfectly, first-quarter GDP outpaced GDI by the largest amount on record. It is also worth noting that GDP is revised closer to GDI historically. Led by a slump in nonfarm productivity, a dip in corporate profits explains much of the recent contraction in GDI. Usually, firms slash headcount to shield profitability as margins ebb, fostering a negative feedback loop. However, having struggled to hire workers, many employers are reluctant to let any go and are hoarding them instead. If this mindset holds, a contraction in GDP should be relatively mild.

## Virtuous Cycle of Job Growth and Consumer Spending Losing Steam

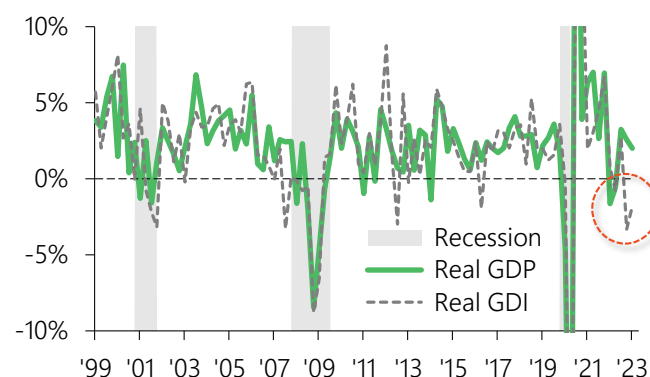
U.S. nonfarm payroll has grown at an average monthly pace of 316 thousand jobs over the last year, well above the 2011 to 2019 trend of 194 thousand. As a result, there are currently 156.2 million people on nonfarm payrolls versus 151.8 million at year-end 2019. Prime-age (25-54) workers filled most of those incremental jobs, with that group's labor participation rate rising to a 21-year high of 83.5 percent. The youth (16-24) labor force is about 1.1 million employees larger than at the end of 2019, with unemployment at its lowest rate since the 1950s. Even the senior (55+) workforce is near its former peak size (though early retirees remain a drag on the participation rate). The virtuous cycle of job creation and consumer spending underpins still-solidly-positive GDP growth. Yet, against a historically tight labor market, robust demand has kept services inflation sticky and the Federal Reserve (Fed) on the offensive. The lagged impact of monetary tightening and the risk of "higher for longer" are notable headwinds for economic growth and corporate profits. Maybe it will be different this time, but leading indicators imply job cuts and softer spending are on the way, marking the end of the virtuous cycle (Exhibit 2). Even if the Fed executes a soft landing, limited slack labor likely mutes the growth outlook.

## Constrained Labor Market Slack Tempers U.S. Economic Growth Outlook

Potential GDP growth, at least in concept, equals labor force growth plus productivity growth. Last year, the Bureau of Labor Statistics (BLS) projected the U.S. labor force would grow at an annual pace of only +0.5 percent this decade as the population ages and growth rates continue to slow. However, employers have pulled forward much of the BLS' expected rise in the labor

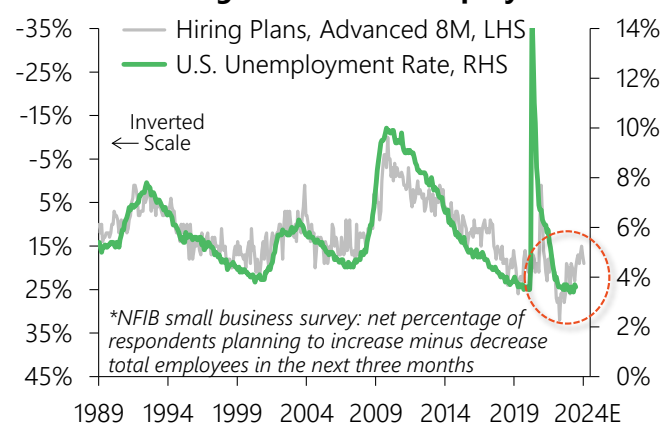
**Exhibit 1: Gross Domestic Product vs. Income**

Real, SAAR, Q/Q Percent



Source: Bureau of Economic Analysis, NBER, 6/29/23

**Exhibit 2: Hiring Plans\* vs. Unemployment Rate**



Source: National Federation of Independent Business, BLS, 7/11/23



force. As a result, 3.5 million more people are in the workforce than the BLS projected for year-end 2023, primarily due to a higher-than-estimated prime-age labor participation rate. If the BLS' 2030 estimate is still valid, then the labor force will grow only +0.1 percent yearly through the decade's end, leaving productivity to square the difference. Productivity, or nonfarm output per hour, has increased by +2.1 percent per year, on average, since 1948. However, the annual pace has weakened to +1.2 percent over the past decade and has been negative year-over-year for five out of the last six quarters (Exhibit 3). Automation and artificial intelligence could alleviate worker shortfalls and drive a boom in productivity, but the potential gains may still be a few years out. Higher immigration is a clear nearer-term solution to worker shortages but is unlikely within the current political backdrop. So, for now, the 55+ demographic has the most potential slack. The St. Louis Fed estimates there are still roughly 2.4 million "excess retirees" versus the pre-Covid predicted trend due to the high number of early retirees in recent years.

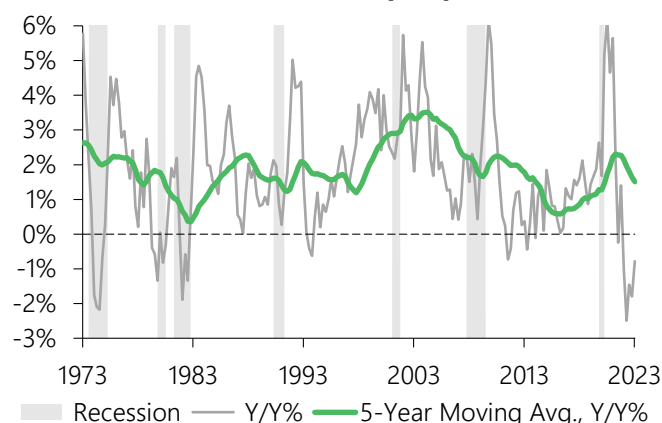
### Disappointing Economic Growth Momentum Triggering Policy Support in China

We now see potential downside risk to our 2023 GDP growth forecast of +5.5 percent following a broad-based growth slowdown in the second quarter. China posted real GDP growth of +4.5 percent in the first quarter of 2023 amid the initial reopening boost. However, recent economic indicators have been weaker than expected. Industrial production, fixed-asset investment, and retail sales growth slowed sharply in April and May. The property market, the largest segment of China's economy, weakened again after a short-lived rebound earlier this year, while export growth also fell into negative territory in May. Moreover, consumer and corporate confidence remain at low levels. In reaction to the weak data, government policy has turned stimulative, as signaled by the surprise policy rate cut in June. Policymakers will likely take their cues from the recent State Council meeting and step up easing measures in the weeks ahead. Still, given elevated debt levels and the government's "housing is for living, not for speculation" mantra, any property or infrastructure stimulus should be modest and unlikely to generate a strong growth impulse. Nevertheless, we expect better economic growth momentum into the year's second half as increased government stimulus takes hold.

### The Euro Area's Service Sector Rebound Faded as First Half Progressed

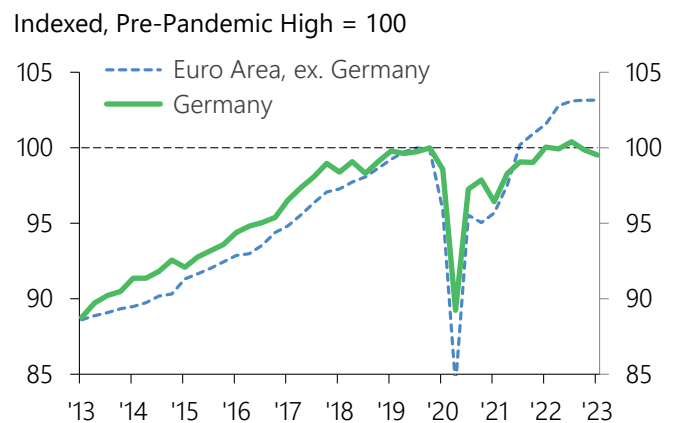
Warmer-than-seasonal winter weather helped stave off a looming energy crisis and lift services demand in the first quarter of 2023, blunting the fallout from the war in Ukraine. Nonetheless, recently revised GDP figures revealed the Euro Area still experienced a mild technical recession for the six months ending March 31. The service sector rebound carried into the second quarter and likely offset a deepening manufacturing recession to keep the economy's head above water. Alas, the uptick in economic activity was fleeting. The services PMI fell to a five-month low in June, with total Euro Area output growth nearing stall speed. With its outsized manufacturing sector, Germany is a significant drag on the bloc (Exhibit 4). The German manufacturing PMI dipped to a 37-month low in June, while business expectations have fallen back to December's historically depressed levels. Meanwhile, the European Central Bank (ECB) continues to raise

**Exhibit 3: U.S. Nonfarm Output per Hour**



Source: Bureau of Labor Statistics, 6/30/23

**Exhibit 4: Euro Area Real GDP**



Source: Eurostat, 6/30/23





interest rates in response to sticky core inflation, further straining economic activity. The ECB has increased its main policy rate to +4.0 percent from zero since July 2022 and will likely hike rates by another 25 to 50 basis points before pausing. Still-strong employment, improving real income growth, and excess savings backstop the downside risks heading into the second half.

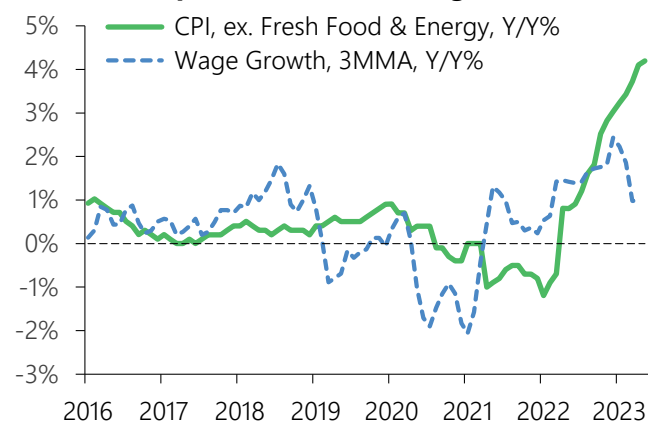
### Japan on Steady Footing for Now but Headwinds on Horizon

A late exit from Covid-related restrictions continues to buoy Japan's economic recovery. Real GDP expanded at an annualized rate of +2.7 percent during the March 2023 quarter and is on track to grow +1.7 percent in the June quarter. A boost in services-focused consumer spending, a resurgence in inbound tourism, and steady domestic-oriented capital spending has propelled the expansion. Wage growth remains tepid, but a pick-up spurred by a still-tight labor market could add more runway to the domestic consumption recovery. Still, risks are rising. Inflation readings continue to surge despite moderating commodity prices. Consumer prices excluding fresh food and energy, the Bank of Japan's (BoJ) preferred measure for underlying inflation, jumped +4.3 percent in May versus the year-ago level, for a 42-year high (Exhibit 5). Fear of short-circuiting the recovery and a slide back into deflation has kept the BoJ on hold. However, continued hot inflation, especially if alongside higher wages, will compel the BoJ to tighten. Weakening growth abroad also challenges Japan's growth prospects as higher interest rates take a bite in developed markets and China's recovery sputters. A renewed export slowdown would weigh on the manufacturing sector with negative implications for the broader economy.

### Elevated Emerging Markets Inflation Delaying Interest Rate Cuts

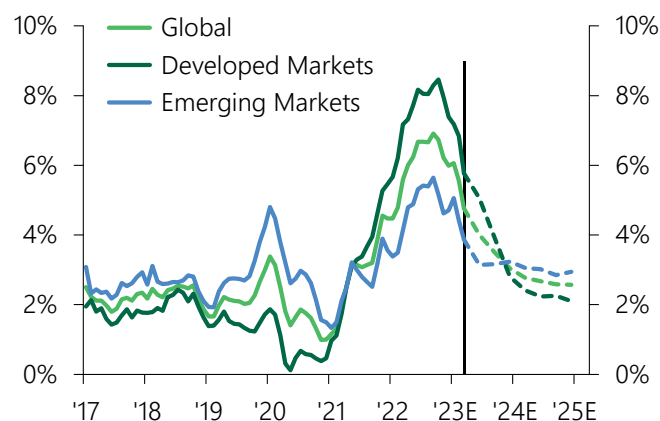
We project emerging market (EM) GDP growth of +4.3 percent in 2023 (versus 2022's +3.7 percent) on robust India GDP growth, expected interest rate cuts, and higher Chinese stimulus. India's economy grew a faster-than-expected +7.2 percent year-over-year in fiscal 2023 (ended March 31), led by construction, financial services, and consumption. We project India's GDP will grow at a robust pace of +6.2 percent in fiscal 2024. Also, its inflation rate of +4.3 percent in May was a 25-month low, offering policymakers room to reduce interest rates. In addition, Indian Prime Minister Narendra Modi's state visit to the U.S. should result in stronger ties on trade, defense, technology, and climate change. We also believe companies will continue to shift their supply chains from China to other emerging markets, including India. Elsewhere, inflation has surprised to the downside due to lower oil/commodity prices and supply chain improvements. As a result, we forecast EM inflation will decline to +6.1 percent in 2023 from +7.5 percent in 2022 (Exhibit 6). We also expect EM central banks to cut interest rates soon. Case in point, Brazil's central bank has kept its Selic rate at 13.75 percent for seven consecutive meetings due to elevated inflation. Yet, inflation has fallen to +3.9 percent (below the bank's upper range target of +4.75 percent) and should allow it to ease policy to promote growth.

**Exhibit 5: Japan Inflation vs. Wage Growth**



Source: Statistics Bureau, Ministry of Health, Labor, & Welfare, 6/30/23

**Exhibit 6: Global Headline CPI Forecast**

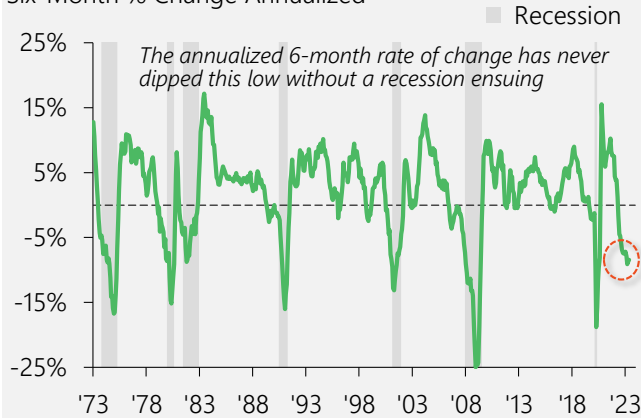


Source: Morgan Stanley Research, 6/12/23

## U.S. Macro: Other Notable Data Points

### Leading Indicators Broadly Signal Recession

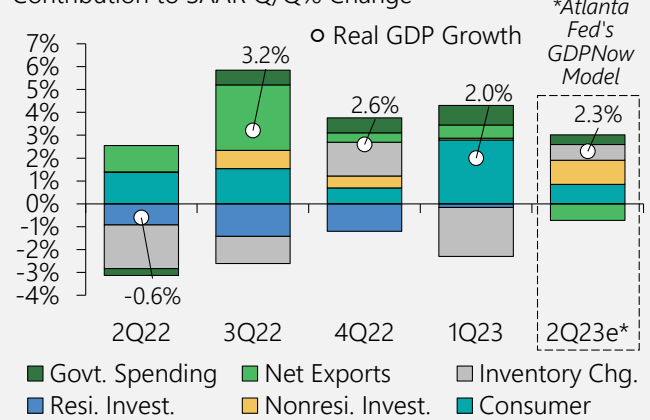
U.S. Leading Economic Index  
Six-Month % Change Annualized



Source: The Conference Board, 6/22/23

### But GDP Growth Continues to Defy Predictions

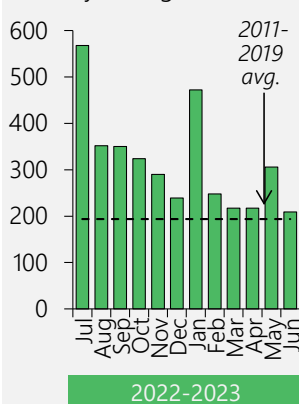
U.S. Real GDP  
Contribution to SAAR Q/Q % Change



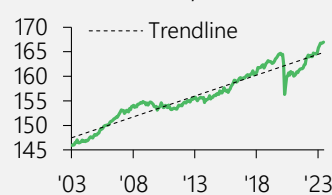
Source: Bureau of Economic Analysis, Atlanta Fed, 7/10/23

### Limited Labor Slack Restrains Growth Outlook

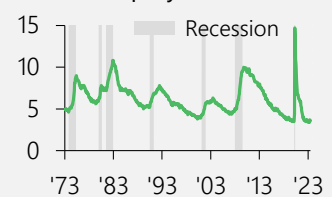
U.S. Nonfarm Payrolls  
Monthly Change, 000



U.S. Labor Force, Million



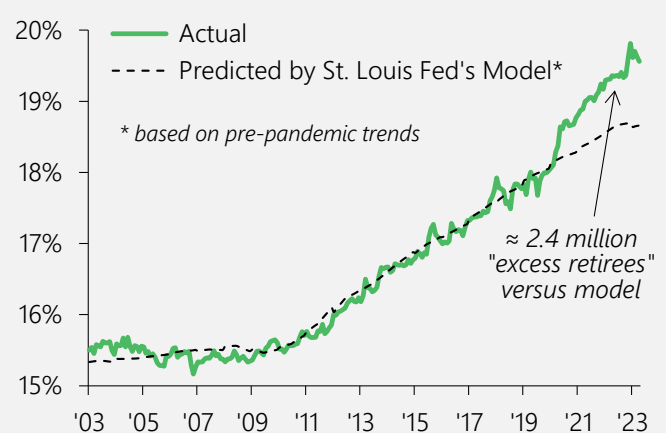
U.S. Unemployment Rate, %



Source: Bureau of Labor Statistics, NBER, 7/7/23

### Pulling Early Retirees Back Into Workforce Vital

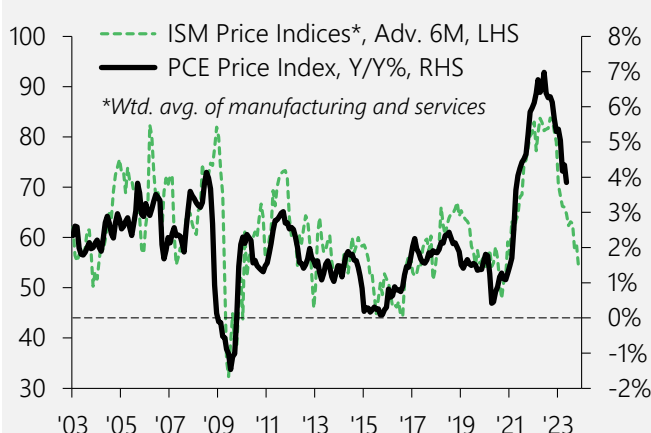
Percentage of 16+ U.S. Population That Is Retired



Source: Federal Reserve Bank of St. Louis, 6/22/23

### PMIs Imply Lower Inflation w/o Any Job Cuts

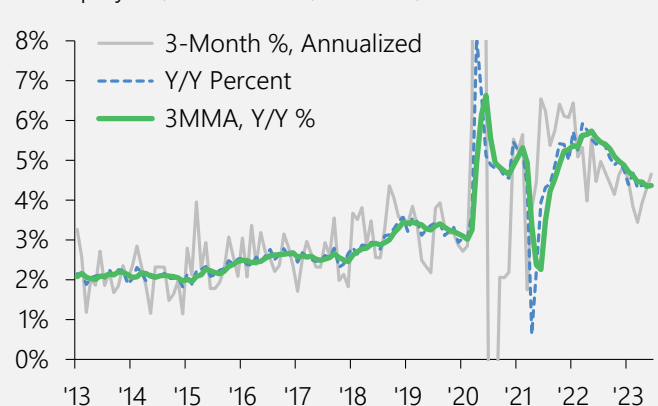
ISM Price Indices\* vs. Headline PCE Price Index



Source: Institute for Supply Management, BEA, 7/6/23

### Wage Growth Ebbing but Still Too High for Fed

U.S. Average Hourly Earnings  
All Employees, Total Private, Nominal, NSA

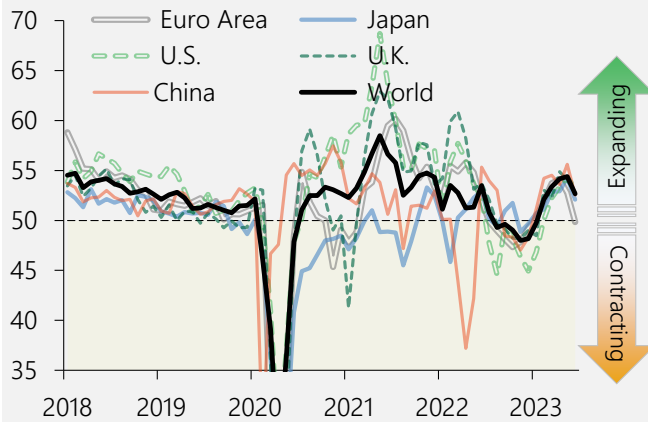


Source: Bureau of Labor Statistics, 7/7/23

## Global Macro: Other Notable Data Points

### Global Economy Has Lost Upward Momentum

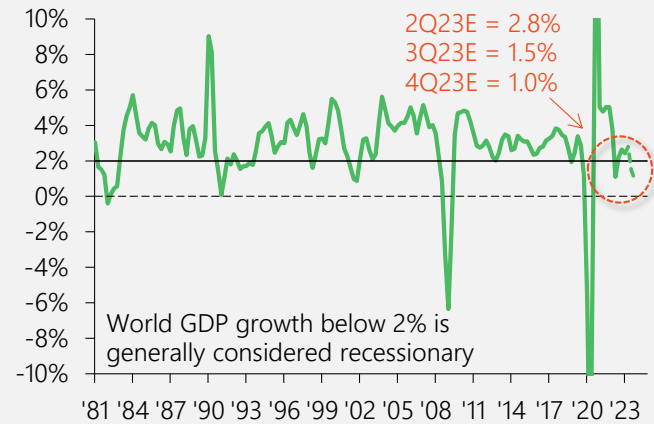
Composite Purchasing Managers' Indices



Source: S&P Global, 7/6/23

### GDP Growth May Dip to Recessionary Levels

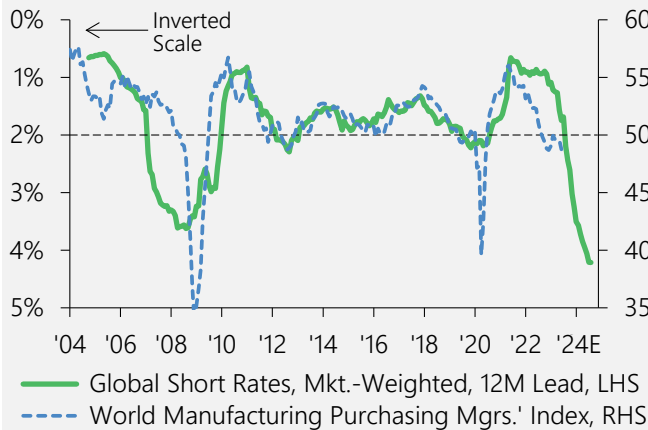
World Real GDP Growth, 2-Quarter Annualized Percent



Source: Oxford Economics, 6/30/23

### Aggressive Rate Hikes a Significant Headwind

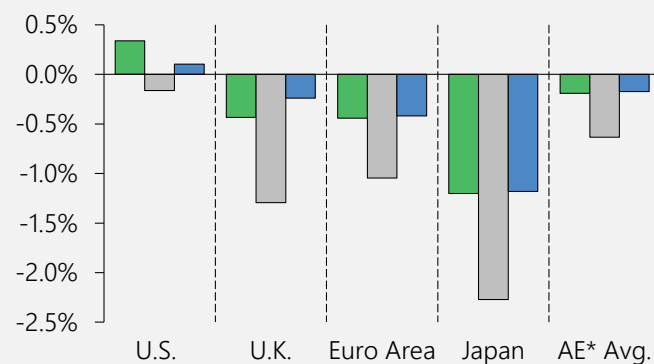
Global Short-Term Interest Rates vs. Manufacturing PMI



Source: FactSet, S&P Global, 7/6/23

### Global Fiscal Policy Will Remain Unsupportive

Fiscal Impulse\*\*



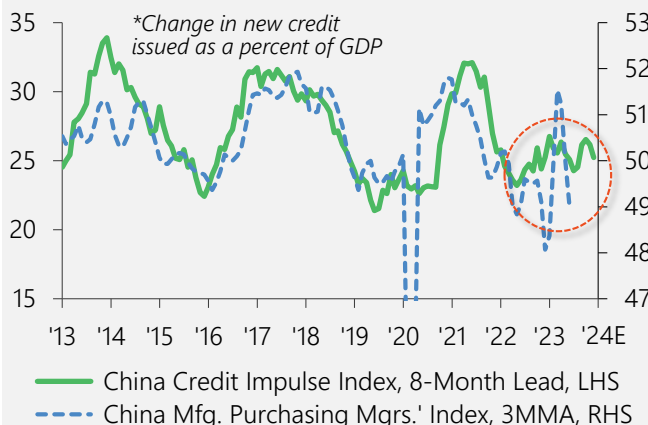
\* Advanced Economies

\*\*Chg. in cyclically-adjusted primary balance as % of potential GDP

Source: IMF Fiscal Monitor, 4/3/23

### China's Economic Growth Reliant on Stimulus

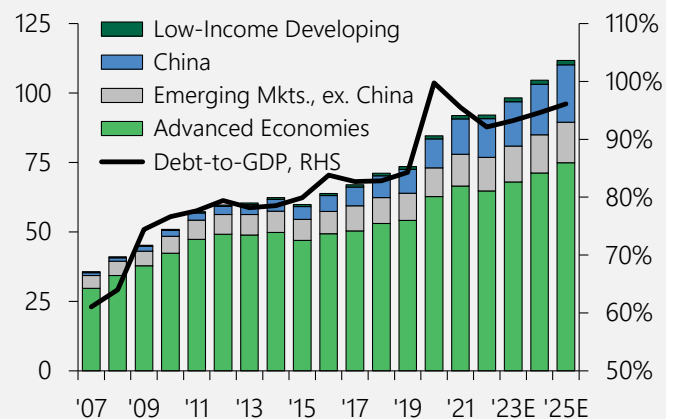
China Credit Impulse\* vs China Manufacturing PMI



Source: Bloomberg, National Bureau of Statistics, 6/30/23

### Debt Levels May Constrain Future Fiscal Support

General Government Debt, \$ Trillion



Source: IMF Fiscal Monitor, 4/3/23





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## **FIXED INCOME: ENVIRONMENT AND STRATEGY**

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### **Federal Reserve Pauses in June but Signals a Couple of More Small Hikes**

The Federal Reserve (Fed) delivered a hawkish pause at its June meeting and raised its median fed funds rate forecast for year-end to +5.6 percent from +5.1 percent, implying two more 25 basis point rate hikes. Although investors anticipated the pause (or skip), many were surprised by the higher fed funds rate projection. The Fed may hike one or two more times this year, but it has already done much of the heavy lifting. Inflation-adjusted interest rates are now positive, translating to restrictive monetary policy and reducing pressure on the Fed to tighten further. Thus, we believe yields have peaked and that the curve inversion will lessen as inflation steadily declines. As pandemic-era stimulus expires and consumers deplete savings, we suspect more people (notably early retirees) may enter the workforce. As a result, supply shortage-related inflation should continue to lessen. This dynamic interplay between inflation, economic growth, and interest rates will be the focus of our market analysis over the next year. As the economy has remained relatively strong and inflation is declining, the timing of a recession (and anticipated rate cuts) keeps getting pushed out. We remain optimistic about bond returns and emphasize income and modest price appreciation in portfolios.

### **Bank Turmoil Disrupted Bond Market and Created Attractive Opportunities**

Bank and finance bond spreads have tightened 40 basis points from the wide levels in March as the banking situation has stabilized. New issuance in the bank and finance sector has been less than expected before the recent banking issues arose and will likely remain below last year's levels through year-end. After initially reducing exposure to vulnerable bank and finance firms, we increased our holdings of select short-maturity bonds offering substantial value. Non-bank bonds widened less during the banking turmoil and have not partaken in the narrowing seen in the banking sector. While overall corporate spread levels are average, yields of +5.3 percent are higher than they have been for over 95 percent of the last ten years. The banking stress has impacted all investment-grade sectors, and we are finding great relative value outside corporate bonds, specifically in the mortgage sector. Mortgage spreads widened significantly due to concerns about increased supply pressures (and lack of demand) from bank failures. As most of the bank fears have subsided for the time being, spreads have retraced some of the widening, and we expect mortgage performance to continue to improve. We have been actively taking advantage of this opportunity by increasing exposure where appropriate. Given mortgage rates near 7.0 percent and substantial untapped home equity, we have been anticipating second lien issuance to reemerge. Recent second-lien deals have received healthy levels of investor interest. The modest duration, high credit quality, and higher yield are attractive relative values.

### **Taxable Fixed Income Strategy**

With the anticipated cooling of the economy and inflation, we expect Treasury yields to decline and the yield curve to start to normalize back to its more traditional upward-sloping shape. As a result, we intend to maintain portfolio durations at or longer than benchmarks to benefit from the resulting bond market rally. Where appropriate, we are overweight in the non-government bond sectors in the intermediate part of the yield curve. While non-bank credit fundamentals are strong, we expect credit metrics to weaken along with our forecast for a slowing economy. Therefore, we have been investing in higher-quality corporate bonds at the front end of the curve. With mortgage coupons and spreads at historically attractive levels, we have increased these positions where appropriate. Portfolio yields are higher than we have seen in years, and the additional income should enhance bond returns. We expect the short end of the Treasury curve to decline in yield as investors begin to anticipate cuts in the fed funds rate in 2024. As a result, we will opportunistically trade the yield curve as market pricing of perceived Fed policy fluctuates, providing opportunities to enhance portfolio returns and yield.



## The Municipal Bond Market Remains Stable and Preserves Gains

The Bloomberg Municipal Bond Index generated a -0.10 percent return in the second quarter of 2023 (Exhibit 7). The near break-even result preserved the year-to-date gain earned from a robust first-quarter return of +2.78 percent. Longer duration bonds, high yield, and low investment grade bonds continued to outperform throughout the first half. The highest second-quarter returns were in industrial development, tobacco, and hospital credit. In addition, the benchmark yield on tax-exempt AAA General Obligation bonds increased from +2.27 percent to +2.56 percent during the second quarter, ending up just +0.07 points below where it started the year. Spreads of tax-exempt bond yields to those of corresponding U.S. Treasury bonds tightened modestly in the first half of the year.

## Reduced Supply Creates Tailwind for Municipal Bond Market

New issues of municipal bonds declined 20 percent in the first half from the prior year due to higher interest rates. The decline has been broad-based, similarly impacting both refunding and new money issues. We expect lighter issuance to persist throughout 2023 and support market performance. Lower issuance is especially true for the summer when the municipal bond market experiences the most significant volume of seasonal reinvestment flows.

## Municipal Bond Credits Remain Healthy

Although state tax revenues are softening after spectacular growth in the last two years, the growth rate on average will likely remain in the single digits in 2023 and 2024 (per Moody's), barring a significant recession. Higher inflation has boosted tax collections. Certain states with high exposure to capital gains tax, such as California, are experiencing more volatility in projected revenues. Regional bank failures have continued to have no impact on municipal bond credits. State and local government reserve funds carried over from 2022 are at all-time highs. After a record volume of outflows in 2022, municipal bond mutual funds experienced a much more modest outflow of approximately one percent of assets in 2023 (Exhibit 8).

## Tax-Exempt Fixed Income Strategy

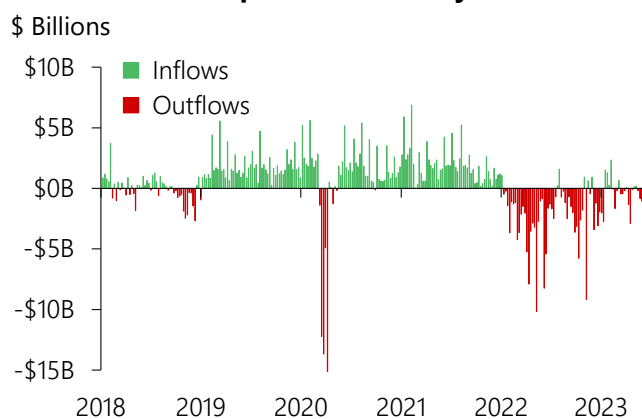
Municipal bond yields may be near a cyclical peak, as the Federal Reserve is likely near the much-anticipated conclusion of its tightening cycle. A potential recession over the next year could raise municipal bond prices, as the outlook for lower interest rates would gain additional credibility. Over the near term, a range-bound tax-exempt municipal market will increase the importance of interest income as a driver of total returns. Our continued focus on income generation, specific high-grade sectors offering more spread, and relative value opportunities should position us well in this market environment.

**Exhibit 7: Municipal Bond Index Returns**

	2Q23	YTD		2Q23	YTD
Muni Bond	-0.10	2.67	GO Bond	-0.41	2.18
3-Year	-0.45	0.90	Revenue Bond Index	0.04	3.00
5-Year	-0.72	1.19	Electric	-0.07	2.38
7-Year	-0.78	1.50	Hospital	0.20	3.40
10-Year	-0.59	2.16	Housing	-0.74	2.66
Long	0.67	4.96	IDR/PCR	0.56	2.75
AAA	-0.41	2.08	Transportation	0.13	3.34
AA	-0.23	2.41	Education	-0.17	2.60
A	0.22	3.24	Water & Sewer	-0.11	2.40
BAA	0.72	4.45	Tobacco Index	0.42	3.55

Source: Source: Bloomberg, 6/30/23

**Exhibit 8: Municipal Bond Weekly Fund Flows**

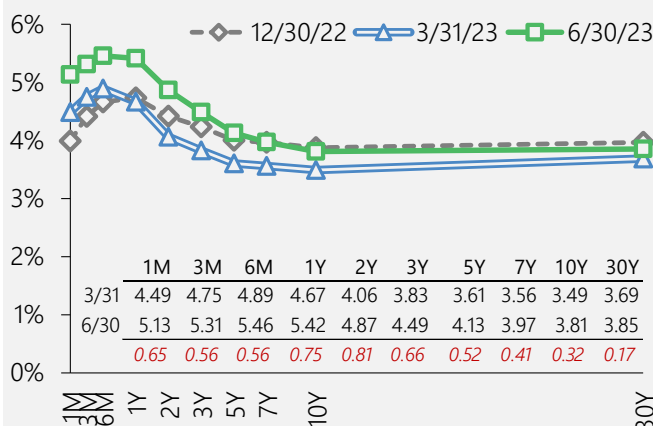


Source: Goldman Sachs, Refinitiv, 6/30/23

## Fixed Income: Other Notable Data Points

### Yield Curve Inverted Further on Rate Hikes

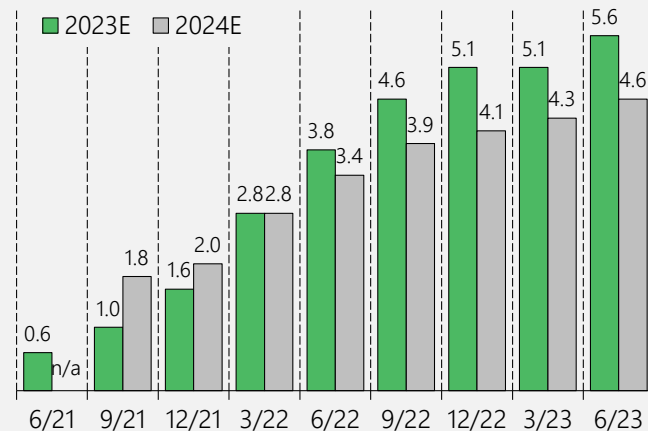
U.S. Treasury Yield Curve



Source: FactSet, 6/30/23

### Fed Keeps Upping the Ante but Close to Done

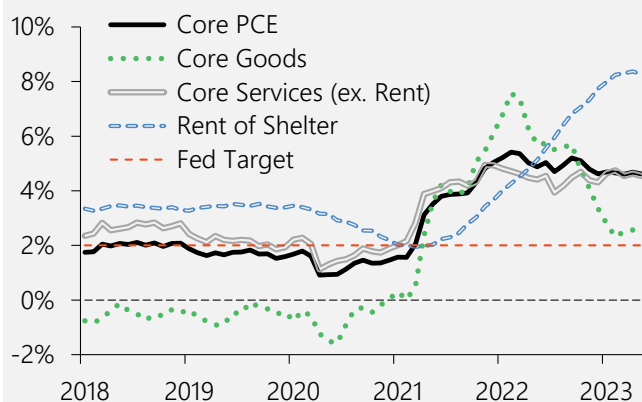
FOMC Median Fed Funds Rate Projections, Percent



Source: Federal Reserve, 6/14/23

### Sticky Core Inflation Keeping Fed on Offensive

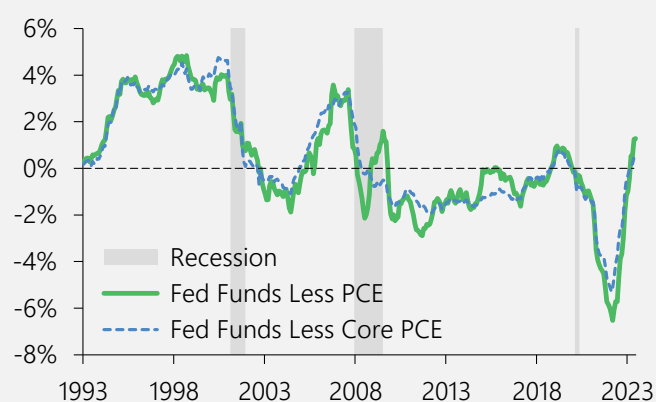
U.S. Core PCE Price Index  
Y/Y Percent



Source: Bureau of Economic Analysis, 6/30/23

### Positive Real Rates Lessen Need for More Hikes

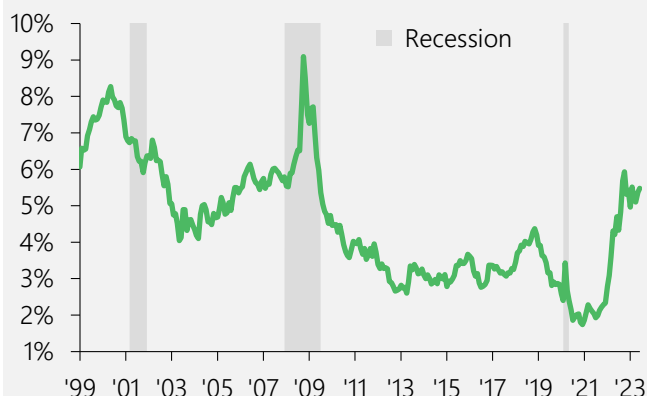
Real Fed Funds Rate  
Percent



Source: Federal Reserve, Bureau of Economic Analysis, NBER, 6/30/23

### IG Corporate Yields Remain Over 5 Percent

Bloomberg U.S. Aggregate Corporate IG  
Yield to Worst, Percent



Source: Bloomberg, 6/30/23

### Mortgage Spreads are Especially Attractive

Average MBS Yield versus 5-10-Year Treasury Yield  
Spread, Basis Points



Source: Bloomberg, 6/30/23



## Helped by “FOMO,” Equity Gains Broadened Beyond Mega-Cap Tech in June

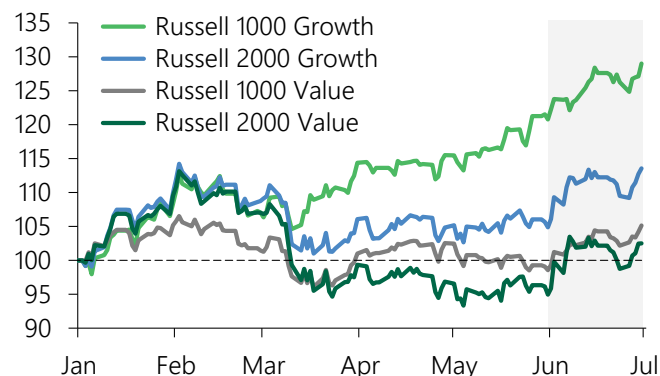
U.S. equities roared to life in June as the previous month’s rally in AI and mega-cap technology stocks widened to include other sectors, styles, and market capitalization sizes (Exhibit 9). The S&P 500 Equal Weight Index beat the headline S&P 500 Index for the first time since January, although it still lags by a wide margin year to date (Exhibit 10). Just seven stocks – Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla – contributed +1,138 basis points, or 67 percent, to the S&P 500’s year-to-date return of +16.9 percent. Said another way, those seven stocks produced an enormous combined year-to-date return of +61.1 percent on a market-cap-weighted basis versus +5.8 percent for the rest of the S&P 500. Reassuringly, market breadth improved in June after only 23 percent of S&P 500 constituents outperformed the overall Index in May, the lowest percentage since at least 1986 (Exhibit 11). The stock market climbed a so-called “wall of worry,” cheered by a respite from banking woes, the debt ceiling fix, and better-than-expected macro data. Yet, the fear of missing out was undeniably a significant influence. Given the exceptional global uncertainty, investors still lack conviction despite the June rally.

## Investor Sentiment and Positioning Reflect a Continued Lack of Conviction

Investor sentiment has improved from late 2022 lows, but some measures have begun to soften again as global economic momentum ebbs and core inflation remains sticky. The State Street Risk Appetite Index indicates institutional investors remain risk-averse across and within asset classes, starkly contrasting the S&P 500’s year-to-date performance (Exhibit 12). State Street

**Exhibit 9: Russell Total Return Indices**

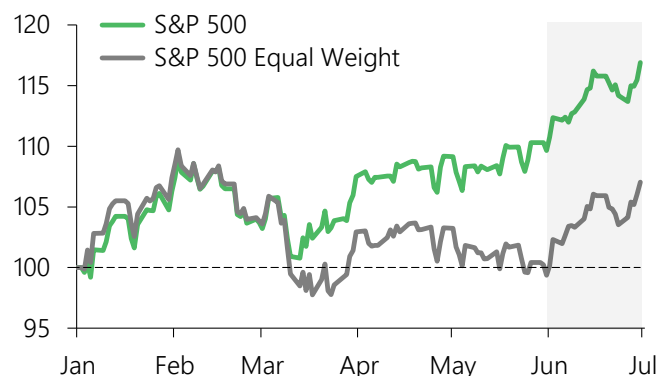
Rebased, 12/31/22 = 100



Source: FactSet, 6/30/23

**Exhibit 10: S&P 500 Total Return Indices**

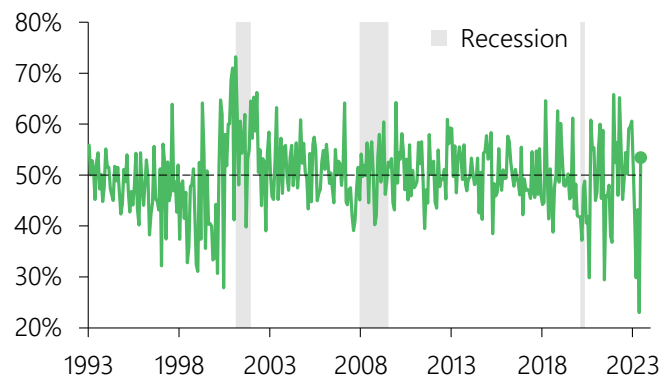
Rebased, 12/31/22 = 100



Source: FactSet, 6/30/23

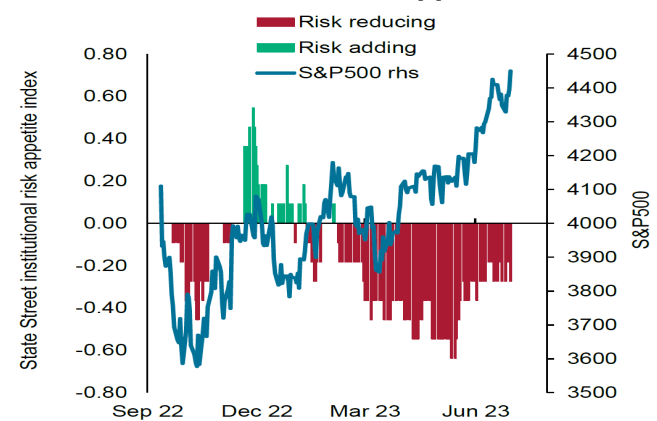
**Exhibit 11: % of S&P 500 Stocks Beating Index**

Based on Rolling One-Month Returns



Source: BofA Research, FactSet, 6/30/23

**Exhibit 12: State Street Risk Appetite Index**



Source: State Street, 6/30/23

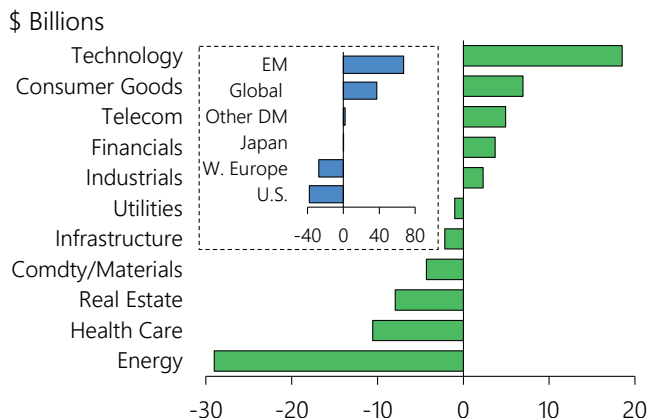


claims it is the longest run of defensive behavior it has observed since the global financial crisis. However, as per State Street's custodial assets, institutional investors' overall equity allocation is above its long-run average, while bonds are below. U.S. households are also over-allocated to stocks relative to historical norms. A cumulative \$41 billion has flowed into equity mutual funds and ETFs globally year to date, bringing the total since April 2020 to an unprecedented \$1.5 trillion. While about \$38 billion has flowed out of U.S. equity funds this year, flows were positive in June (Exhibit 13). The AI euphoria-driven equity gains exacerbated fears of missing out, turning bears into wary bulls and pulling retail investors back into the stock market. The extraordinary liquidity still sloshing around continues to provide an underlying bid for equities.

### Contraction in Central Bank Balance Sheets/Policy Normalization a Headwind

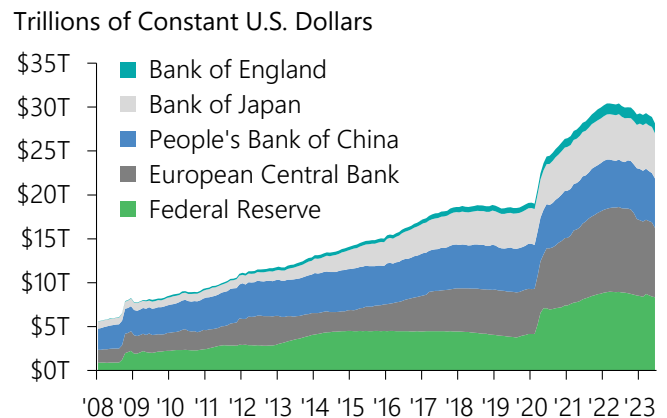
The central banks of the U.S., the Euro Area, China, Japan, and the U.K. alone injected around \$11.3 trillion (in constant currency) of fresh liquidity into the global financial system from the end of 2019 through June 2022 (Exhibit 14). Plus, global fiscal measures added another \$19.3 trillion in pandemic-related stimulus. Accordingly, the global economy became awash in cash, driving up the prices of goods and services against constrained supply and demand for equities. The Federal Reserve (Fed), the European Central Bank (ECB), and the Bank of England (BoE) have all slowly but steadily reduced their balance sheet sizes since mid-2022 (Exhibit 15). The Fed continues reducing its bond portfolio by about \$80 billion per month, putting it on pace to achieve \$1.1 trillion in quantitative tightening by year-end (or about a 12 percent reduction in its balance sheet). Growth in "excess liquidity" has become less negative lately on a slowdown in industrial production (Exhibit 16). However, a continued contraction in central bank assets and money supply is a noteworthy but likely manageable headwind for stocks.

#### Exhibit 13: YTD Cumulative Equity Fund Flows



Source: EPFR, 6/30/23

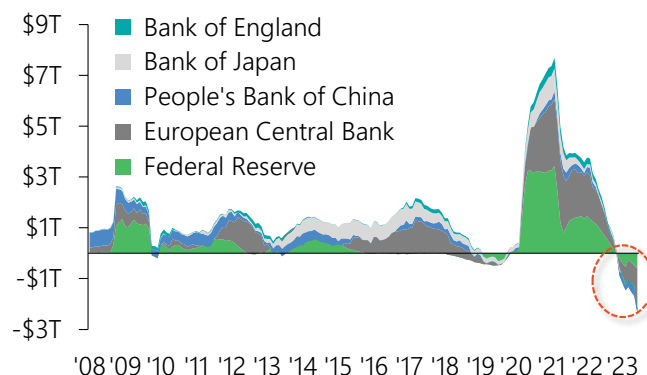
#### Exhibit 14: Assets of Six Largest Central Banks



Source: BoE, BoJ, PBoC, ECB, Fed, 6/30/23

#### Exhibit 15: Change in Central Bank Assets

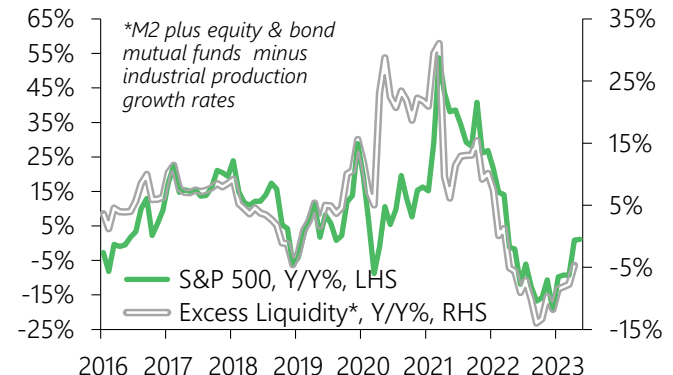
Rolling 12-Month Chg., Trillions of Constant U.S. Dollars



Source: BoE, BoJ, PBoC, ECB, Fed, 6/30/23

#### Exhibit 16: S&P 500 Index vs. Excess Liquidity

S&P 500 Index vs U.S. Excess Liquidity



Source: Federal Reserve, ICI, FactSet, 6/30/23





## Risk of Corporate Profit Warnings in Second Half

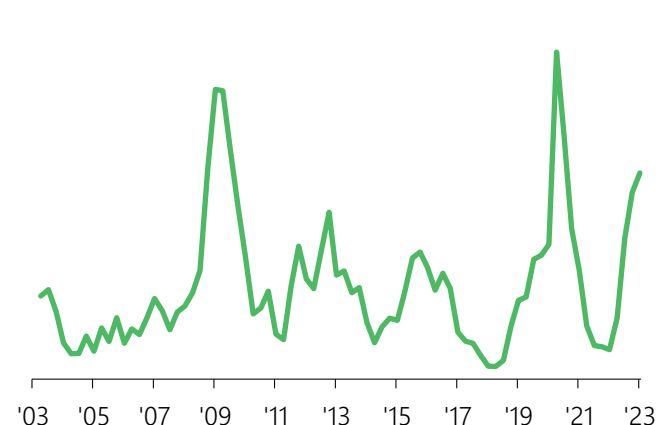
Corporate earnings for the first quarter of 2023 generally exceeded previously lowered sell-side expectations. Over 78 percent of the S&P 500 constituents beat consensus versus 69 percent in the fourth quarter of 2022 and the 10-year average of 73 percent. Still, S&P 500 bottom-up earnings fell -1.3 percent year over year, and management mentions of “weak demand” spiked to a near record (Exhibit 17). Also, the S&P 500’s net margin has fallen -250 basis points from its mid-2021 peak (Exhibit 18). The consensus estimate implies bottom-up earnings will drop by -6.2 percent year over year in the second quarter, likely setting another low bar. Given still-resilient GDP growth, we expect another set of decent earnings reports for the second quarter. In addition, the one-month management guidance ratio is at its highest since 2021, supporting possible second-quarter upside. Conversely, the consensus estimates for second-half 2023 and calendar 2024 are still too high and do not discount a recession scenario. Even in mild earnings contractions, on average, S&P 500 profits historically drop -10 percent, implying next-twelve-month earnings per share of \$191 versus the current consensus of \$227. Investors seem intent on looking past downward revisions as markets are an anticipatory mechanism. Thus, equity returns should broaden as investors discount a better outlook for 2024 and 2025.

## Global Equity Strategy

Given the strong equity returns in the first half of 2023, we expect more subdued returns near term as investors struggle with the timing of the much-anticipated recession and the end of the Federal Reserve’s tightening cycle. Portfolios remain well diversified and consist of secular and cyclical growers. With the recent upward surge in technology stocks, we see better near-term opportunities in groups that lagged in the first half. Specifically, many industrials show steady growth and have tailwinds in end markets such as infrastructure, electrification, automation, and aerospace. The healthcare sector is also attractive, with earnings generally immune to a softening economy. We see compelling investment opportunities in medical devices, hospitals, HMOs, and select biopharma stocks. Finally, while lower energy prices have led to weak share prices this year, we believe the sector is attractive given its still-healthy free cash generation, strong balance sheets, and leverage to higher prices when the next upcycle takes hold.

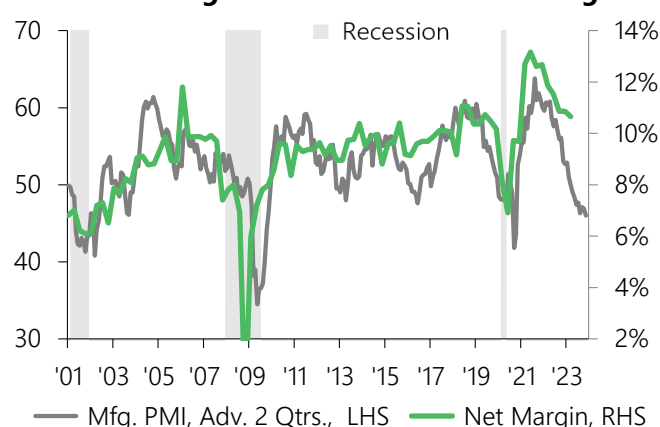
We strongly prefer “quality” stocks as economic conditions will likely become more challenging during the second half of 2023. In this regard, we expect quality dividend-paying stocks to fare better following a difficult first half as non-dividend paying, “risk on” groups (primarily related to technology) drove market returns. Importantly, despite a slowing earnings backdrop, most holdings continue to increase payouts (albeit at a more modest pace than in prior years). We believe dividend-paying growth stocks allow investors to participate in equity market gains in upturns and provide downside protection if the backdrop becomes more difficult. In addition to the above-noted sectors, we see compelling investment opportunities in diverse areas, such as defense, semiconductors, transportation, insurance, waste management, and select utilities. Internationally, we prefer exposure to China, South Korea, India, Singapore, and Australia.

**Exhibit 17: Mentions of “Weak Demand”**



Source: BofA Research, 5/8/23

**Exhibit 18: Mfg. PMI vs. S&P 500 Net Margin**

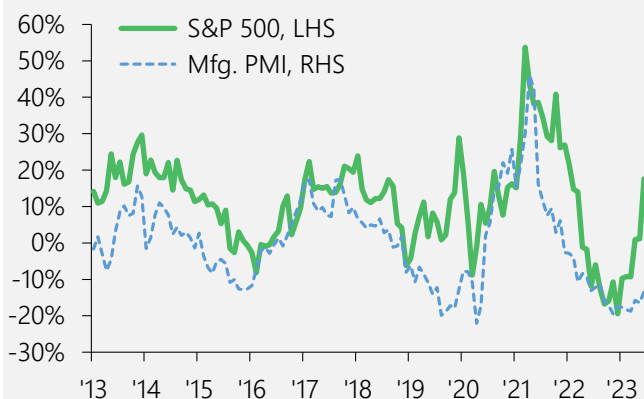


Source: Institute for Supply Management, S&P Global, 7/3/23

## Global Equities: Other Notable Data Points

### S&P 500 Discounts a Dubious PMI Expansion

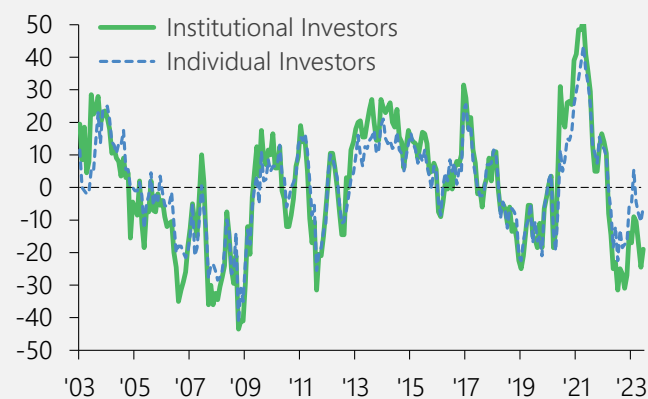
S&P 500 Index vs ISM Manufacturing PMI  
Y/Y Percent



Source: S&P Global, Institute for Supply Management, 7/3/23

### Despite Historically Low Investor Expectations

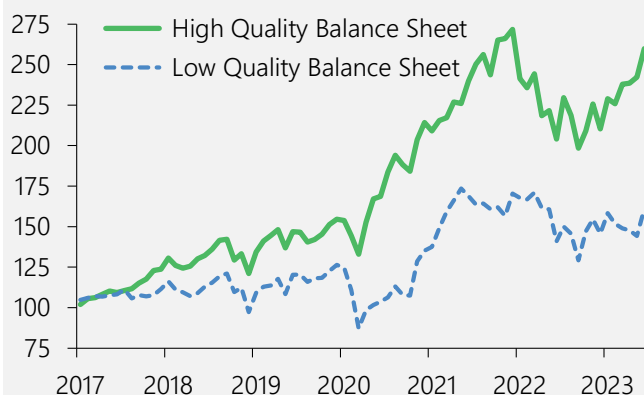
Sentix Investor Confidence  
United States, Expectations



Source: Sentix, 6/30/23

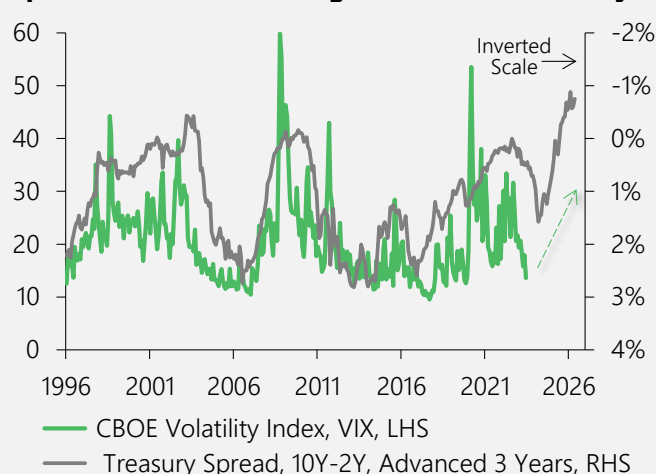
### High Quality Continues to Outperform Handily

Stock Performance by Balance Sheet Quality  
Rebased, 12/31/2016 = 100



Source: Goldman Sachs, 6/30/23

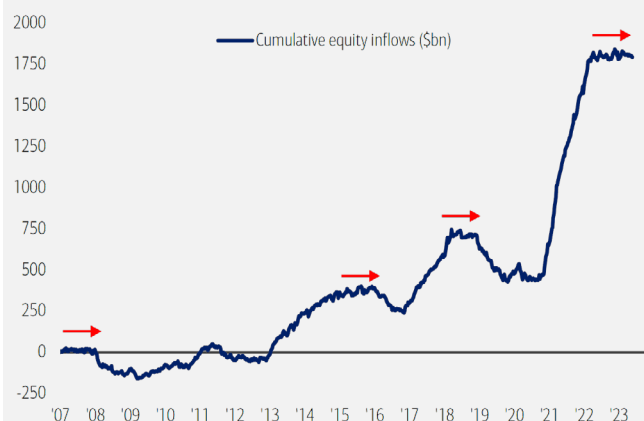
### Spreads Foreshadow Higher Market Volatility



Source: FactSet, 6/30/23

### Risk of Fund Outflows as Liquidity Tightens

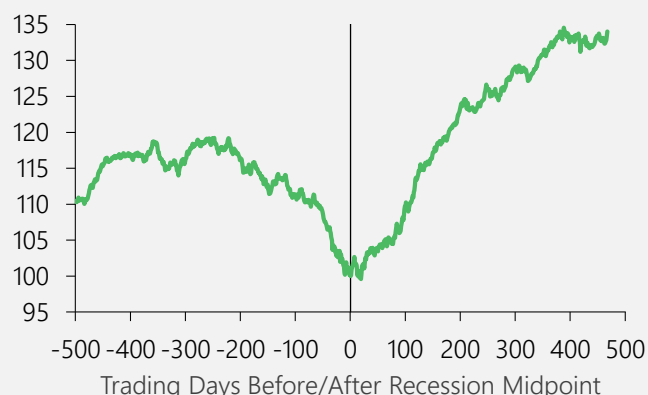
Cumulative equity flows since 2007 (\$bn)



Source: BofA Research, 6/30/23

### S&P 500 Traditionally Bottoms ≈ Mid-Recession

S&P 500, Average Price Path Around Postwar Recessions  
Rebased, Recession Midpoint = 100



Source: FactSet, 6/30/23

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