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# Equity Market Outlook 3Q 2023

## Economic and Market Review: Long-Term Optimism Amid Short-Term Headwinds

Like many, we have been surprised by the strength of U.S. equities in the face of rising interest rates, sticky inflation, a regional banking crisis and persistent geopolitical tension. Megacap growth stocks (MEGAs) dominated during the first half of the year, helped along by excess liquidity (soon set to unwind), fortuitous positioning (as investors, both systematic and discretionary, shifted from being grossly under-positioned in equities to distinctly above average following last year's lackluster performance), and giddy exuberance over AI (and the productivity gains it promises).

With MEGA valuations still on the rise, we believe we are entering frothier territory, with recent gains being more driven by multiple expansion than by earnings growth. At the same time, experience reminds us that valuations have a way of defying gravity in the glow of transformative technologies and paradigm shifts—and predicting peaks in investor frenzy with precision is a tall order.

Against this mixed backdrop, our *Equity Market Outlook* reemphasizes our cautious near-term stance while offering broader perspective on the long-run potential of the U.S. equity market. Specifically, we discuss the drivers of the recent equity rally (and why we think they will be short-lived); the potential risks to our cautious prognostications; and our abiding analytical framework for monitoring crucial shifts and managing risk throughout the current cycle.

As we assess the future, we continue to see risks of a slowdown ahead, recognizing that it has felt a bit like waiting for Godot. That slowdown is likely still coming, but maybe at a slower pace than anticipated. In the meantime, we reaffirm our emphasis on low-beta portfolios, higher earnings quality and defensive sectors in equities—and maintain our conviction in the power of the U.S. equity market to reliably convert risk into return over the long term.

## Investment Themes and Views[1]

Based on their relative sensitivity to changes in inflation and financial conditions, and their historical beta to the stock market, we offer the following as our overweight and underweight views:

### OVERWEIGHT VIEW ON:

**Factors and Styles:**

- Low beta
- High quality
- Large caps
- Momentum
- High earnings visibility
- U.S. stocks

**Industry Groups:**

- Household & Personal Products
- Telecom Services
- Food & Staples Retailing
- Health Care
- Utilities
- Food Beverage & Tobacco
- Equity Real Estate Investment Trusts (REITs)

### UNDERWEIGHT VIEW ON:

**Factors and Styles:**

- High beta
- Low quality
- Small caps
- Low earnings visibility
- Speculative growth
- Ex-U.S. stocks

**Industry Groups:**

- Automobiles & Components
- Energy
- Banks
- Consumer Durables & Apparel
- Transportation
- Semiconductors & Semiconductor Equipment
- Technology Hardware & Equipment
- Capital Goods

### NEUTRAL VIEW ON:

- Value
- Growth

[1] For illustrative and discussion purposes only. This material is general in nature and is not directed to any category of investors and should not be regarded as individualized, a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. The firm and its portfolio managers may take positions contrary to any views and themes expressed.

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# Lest We Forget the Long Term

While we encourage equity investors to stay vigilant in the near term, we remain confident in the market's potential to convert risk into attractive returns over the long run.

Dating to the 1780s, the U.S. has weathered as many as 48 economic recessions.[1] Each time, the expansions that followed trounced the temporary contractions. So it goes with bear and bull markets.

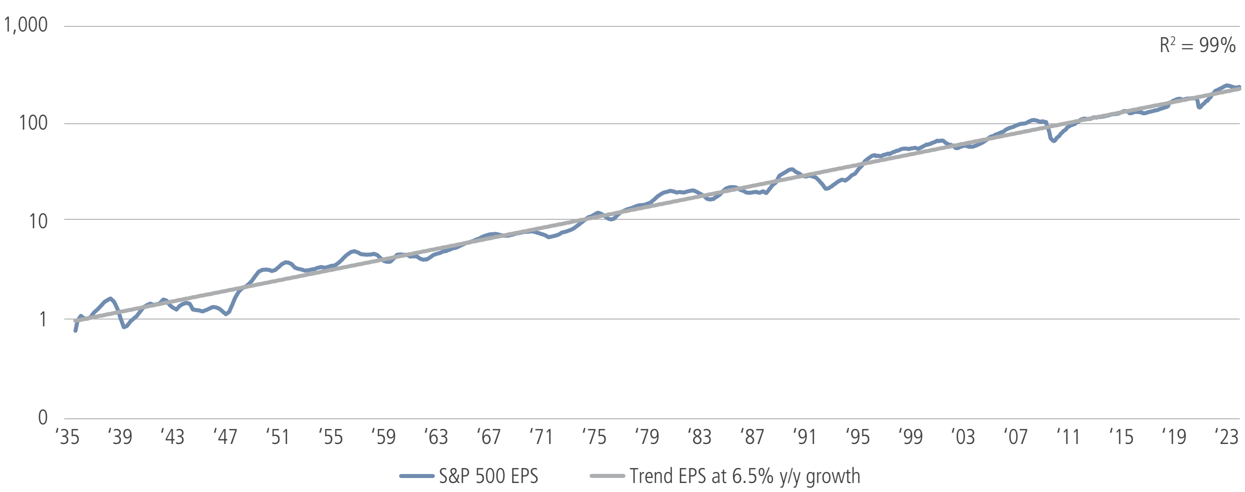
As we ponder the next potential recession and its implications for shareholders, we think it helps to take a longer-term perspective, lest near-term anxiety cloud the distinction between thoughtful risk-seeking and suboptimal risk-aversion.

Over many economic regimes, U.S. equities have reliably converted risk into return, especially when held for extended periods. Since 1900, stocks have delivered a 9.8% annualized total return;[2] moreover, investors who stayed in the market for 10-year stretches made money 96% of the time, while those who held for 5-year periods saw positive returns in 89% of cases.

This extraordinary performance was enabled by the equally remarkable growth in corporate earnings that closely hugged its 6.5% annualized trend line since 1935 (see figure 1). This is no statistical accident: In our view, earnings growth is a function of an economy's underlying resilience—and in the fog of war, it can be easy to underestimate the abiding structural strengths of the U.S. economy, including business-friendly laws, an educated workforce, a societal bent toward progress and risk-taking, and a robust financial ecosystem to support it. In our view, this formidable collection of characteristics will continue to propel long-term equity returns.

**FIGURE 1: S&P 500 EARNINGS GROWTH HAS CLOSELY HUGGED ITS LONG-TERM TREND LINE**

S&P 500 EPS ($)




Source: FactSet and Robert Shiller Online Database. Data as of May 31, 2023. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Past performance is no guarantee of future results.

[1] NBER, Victor Zarnowitz, "*Business Cycles*".

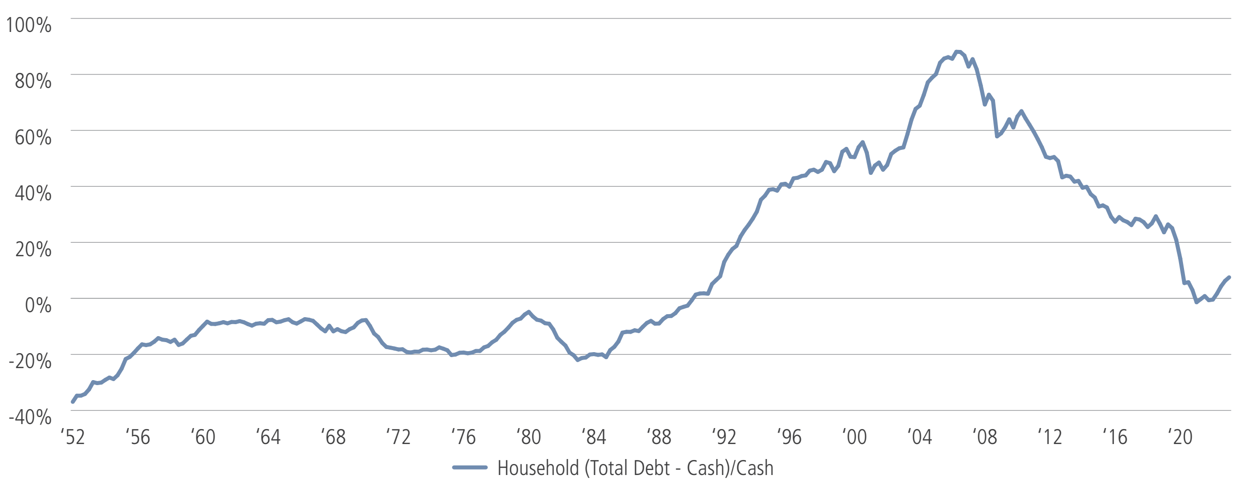
[2] Robert Shiller Online Database and Neuberger Berman Research. Based on S&P 500 total return data. Analysis period between January 1900 and May 2023.

Equities have also shown their potential to be a safe haven during bouts of inflation. When prices rise, earnings and dividends tend to rise as well, making some equities a natural hedge against declining purchasing power. Since 1900, U.S. equities have produced an annualized *real return* of 6.6%, including positive real return in 76% of the rolling 5-year periods, and in 86% of rolling 10-year periods. Even during three previous occasions when 5-year annualized inflation averaged over 7%, equities delivered an average real return of more than 1%.[3]

Any discussion of the economy's long-run trajectory would be incomplete without looking at the potential impact of U.S. consumers, now representing 68% of the American economy and 17% of the world economy.[4] In this context, the ability of U.S. consumers to lever up has important consequences for global demand.

While significant differences exist across income quintiles, we believe the U.S. consumer in the aggregate appears to be in solid financial shape, thanks to dramatic post-GFC deleveraging and a surge in savings from COVID stimulus programs. As shown in figure 2, net consumer debt (total debt net of cash) now stands at 8% of household cash—down from its peak of 88% in 2006, and near its lowest ebb since 1991.

**FIGURE 2: HOUSEHOLDS ARE LEAST LEVERAGED SINCE 1991**




Source: Neuberger Berman and FactSet. Data as of March 31, 2023.

Coming out of this next downturn, we think the overall health of U.S. consumers could be a bullish backdrop for equities as consumers gradually increase their financial leverage, in turn driving the demand for goods and services—and thereby corporate earnings—above the historical trendline. We saw a similar story play out in the 1990s as consumers grew increasingly comfortable shouldering more debt on their balance sheets.

[3] Robert Shiller Online Database and Neuberger Berman Research. Based on S&P 500 total return data. Analysis period between January 1900 and May 2023.
[4] FactSet, IMF. Data as of March 31, 2023.

## Reasons for the Rebound—and Why They Could Fade

Many equity investors have two burning questions right now: 1) why is the economy not in a recession, and 2) why has the market rallied since October?

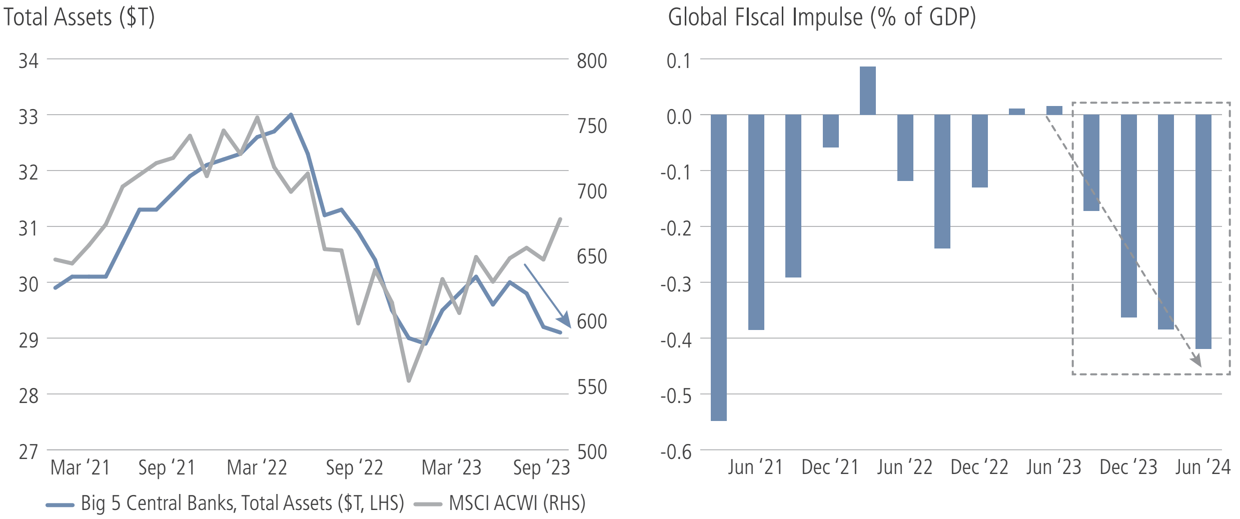
As discussed above, falling but elevated inflation has created a disconnect between nominal earnings and the real economy. Strong nominal growth appears to have captured investors' attentions: In Q1 2023, the nominal economy grew at 3.6%, while the real economy *shrank* 1.2%, and on a trailing-12-month basis, nominal growth reached 5.7% versus real growth of 0.3%.[5] Little surprise that investors looking through a rosy nominal-earnings lens might wonder whether all the talk of an extended downturn had been overblown. However, consensus nominal growth is expected to decelerate through the end of the year as headline inflation recedes, which may likely put profit margins under pressure now that real wage growth has turned positive.

On a more somber note, we find economic growth is faltering and the economy appears destined for a recession as temporary drivers that helped defy the gravitational pull of tightening credit conditions begin to fade.

- First, while real disposable income jumped in Q1,[6] the increase was driven by an upward adjustment to social security payments—a one-time, ephemeral boost, in our view.
- Second, the global PMI rebounded in 1Q along with European and Chinese growth, while the U.S. dollar fell.[7] Both shifts put wind behind large multinational companies, especially the FAANGs (including Meta, Apple, Amazon, Alphabet, NVIDIA, Microsoft and Tesla), whose earnings benefit from a falling USD.[8] However, the rebound in global PMI has since reversed, and the USD (a countercyclical currency) appears, to us, in the process of strengthening.
- Third, global central banks supplied $1.3 trillion of incremental liquidity over the last two quarters to stem an array of issues, from a banking crisis in the U.S. to a lackluster post-lockdown recovery in China (see the left chart in figure 3). We believe that while a shot of liquidity helped fuel a rally in more speculative investments, such as Bitcoin and AI-linked equities, it does not appear to represent the beginning of a longer-term easing cycle. Instead, we think global central banks' balance sheets are set to shrink by $1 – 1.5 trillion by the end of the year, as central banks with accommodative policies (the PBoC and BoJ) only partially offset those with a tightening bias (the Fed, ECB and others DM central banks). Shrinking liquidity, in our view, could remove an important pillar of support for the recent rally.

[5] GDP Plus Series from Federal Reserve Bank of Philadelphia, FactSet. Data as of May 31, 2023.
[6] FactSet. Data as of May 31, 2023.
[7] Ibid.
[8] Neuberger Berman Research, data as of May 31.

**FIGURE 3: GLOBAL CENTRAL BANKS AIDED THE RALLY, BUT FISCAL POLICY MAY NOT SUSTAIN FURTHER GROWTH**




Source: Neuberger Berman, FactSet and Goldman Sachs. Data as of May 31, 2023. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Past performance is no guarantee of future results.

– Fourth, while a sizable corporate order backlog has driven U.S. economic activity since mid-2022,[9] those backlogs have now normalized and, in our view, are unlikely to support growth going forward. Also, capex growth overshot relative to weakening credit availability in Q1'23.[10] While Q2 data is forthcoming, the latest Flow of Funds report from the Federal Reserve shows that corporations have been drawing down cash deposits at a slower rate, suggesting to us that the capex catalyst has also lost steam.[11]

– Lastly, despite large spending programs such as the Inflation Reduction Act, U.S. fiscal stimulus will be more modest this year than last. And it's not just the U.S.: We find that, in the coming year, the net growth impulse from fiscal spending will be negative in 12 of the 14 major economies (see the right chart in figure 3).

As the tailwinds that supported the overall economy, and FAANG stocks in particular, continue to fade, we believe the lagged impact of tighter monetary policy is set to intensify. Consequently, *we expect U.S. growth to downshift and reconnect with the recessionary track it was on and lead to increasing volatility in the equity market.*

[9] BofA, "The Curious Case of U.S. Macro Strength", June 2, 2023.
[10] Ibid.
[11] Q1, 2023 report dated June 8, 2023.

# Continued Caution Despite Market Resilience

For all the promise of the long term, and despite recent buoyance in the S&P 500, we maintain last quarter's cautious stance on the economy and reaffirm our emphasis on low-beta portfolios, higher earnings quality and defensive sectors. (For more context, see our *2Q 2023 Equity Outlook*.)

We estimate the S&P 500 performance in scenarios that include 1) no recession, with the gradual normalization of EPS towards trend; 2) no recession, but a strong slowdown; 3) mild recession; 4) disinflationary recession; and 5) severe recession (see figure 4).

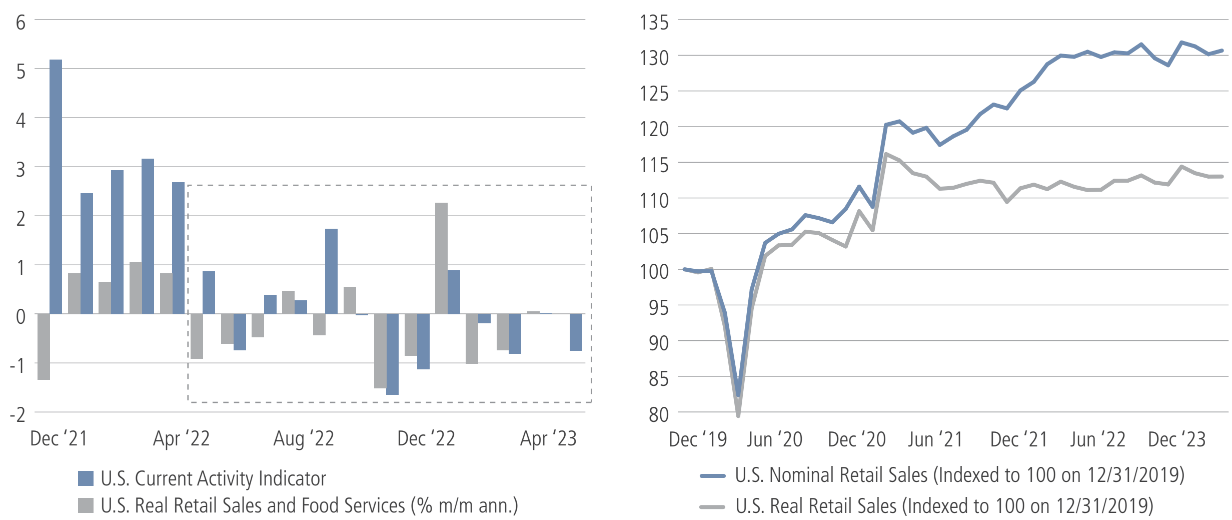
**FIGURE 4: FIVE ECONOMIC SCENARIOS AND THE THEIR POTENTIAL IMPLICATIONS FOR EQUITIES**

| | NO RECESSION | | RECESSION | | |
|---|---|---|---|---|---|
| **Peak-to-Trough Change Estimate** | **EPS Return to Trend** | **Strong Slowdown** | **Mild** | **Disinflationary** | **Severe** |
| Real GDP | +ve | +ve | -1% | -3% | -4% |
| Nom. GDP y/y (Current Cycle: 12% to 7%) | -5% | -5% | -3% | -10% | -8% |
| CPI Inflation (Current Cycle: 9% to 5%) | -5% | -5% | -3% | -5% | -6% |
| WTI Oil* (Current Cycle: $121 to 72) | – | – | -32% | -69% | -69% |
| Unemployment Rate Increase | – | – | 1.9% | 3.9% | 5.4% |
| Duration (Months) | na | na | 8 | 12 | 16 |
| Peak S&P 500 NTM EPS ($/share) | 240 | 240 | 240 | 240 | 240 |
| Est. EPS y/y | -8% | -10% | -20% | -24% | -34% |
| Est. NTM EPS at Trough | 221 | 216 | 192 | 182 | 158 |
| Peak NTM P/E | 21.4 | 21.4 | 21.4 | 21.4 | 21.4 |
| Est Change in NTM P/E Ratio | 6% | -15% | -15% | -25% | -30% |
| Est. S&P 500 NTM P/E Ratio at Trough | 22.7 | 18.1 | 18.1 | 16.0 | 14.9 |
| **Est. S&P 500 at Trough** | **5000** | **3900** | **3500** | **2900** | **2350** |

Prior Mild Recessions: D Agg. Economic Activity >-4%, or DRGDP>-2% [1960, 1969, 1980, 1990, 2000].
Prior Disinflationary Recessions: DNGDP<-6% [1948, 1953, 1957, 1981, 2008, 2020].
Prior Severe Recessions: D Agg. Economic Activity <-6.5%, or DRGDP<-3% [1973, 2008, 2020].
*Analysis includes only the recessions starting in 1980 onwards. Oil prices were not set by the market before that.

In our view, the real U.S. economy has started to crack. Over the last two quarters, gross domestic income (GDI)—the less revision-prone equivalent of GDP, as measured from the income side of the economy—has *shrunk*. Meanwhile, both Goldman Sachs' Current Activity Indicator (a broad measure of the U.S. economy) and real retail sales have declined in eight of the past 12 months (see both charts in figure 5).

**FIGURE 5: THE REAL ECONOMY STILL APPEARS TO BE STRUGGLING**




Source: Neuberger Berman and FactSet. Data as of May 31, 2023. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Past performance is no guarantee of future results.

We believe these figures suggest that the real economy is clearly struggling, even though the full impact of the Fed's aggressive monetary tightening—which can lag economic activity by 18 to 24 months—may still be to come. And while earnings projections remain ebullient as many companies continue to pass along rising input prices to their customers, we believe this is typically an end-cycle maneuver.

Other macro-observations also appear historically inconsistent with an economy on the brink of recovery: The yield curve has inverted further; real money growth remains negative; and banks continue to stiffen lending standards. Meanwhile the Fed remains in tightening mode as factors supporting inflation and consumption continue to hum—including a hot labor market, abundant excess savings among upper-end consumers, and bulging household net worth roughly $15 trillion above the pre-COVID trendline.[12]

Looming lack of liquidity is another large concern, in our view. We believe equity markets thrive when growth in liquidity is in *excess* of economic activity, a condition that we believe tends to deliver positive returns over the next 12 months.[13] While global central banks did add $1.3 trillion over the past two quarters, current excess liquidity growth remains close to zero,[14] which we think is unsupportive of a *sustained* bull market in equities. Indeed, recent rallies sparked by a variety of catalysts—including China's post-COVID re-opening, the removal of Japan's yield curve control policy, stronger-than-expected credit markets, and excitement over Korea's electric-vehicle industry—all fizzled fast.

We find that investor euphoria tends to evaporate as liquidity dries up, which is expected to happen soon thanks to a potentially historic withdrawal in coming weeks. The U.S. Federal Reserve continues to shrink its balance sheet by $95 billion per month (otherwise known as quantitative *tightening*) while cutting back available funding through its discount window. In addition, the

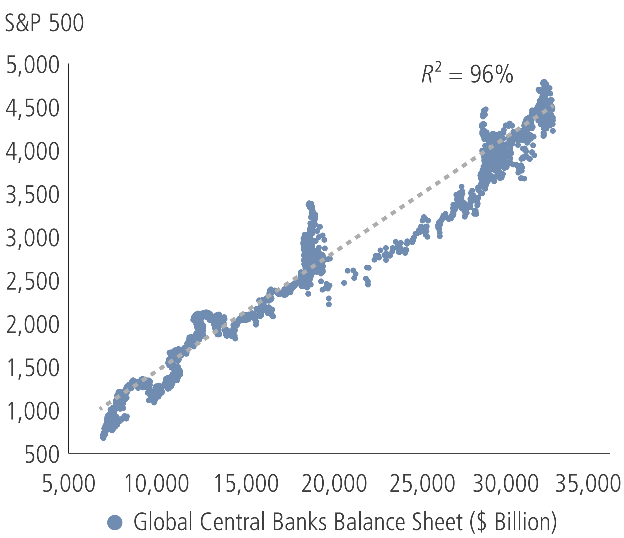
[12] Neuberger Berman, FactSet. Data as of March 31, 2023.
[13] Neuberger Berman, FactSet, Bank of America. Data as of May 31, 2023.
[14] Neuberger Berman, FactSet, and Empirical Research Partners. Data as of May 31, 2023.

Treasury General Account is estimated to expand $400 – 600 billion in the next few weeks, and the European Central Bank is expected to pull €477 billion in TLTRO financing out of the banking system by the end June.[15] In total, up to $1.5 trillion in global liquidity may evaporate by the end of the year—perhaps the largest reduction ever recorded—though we acknowledge that different tightening mechanisms can have widely varying market impacts.

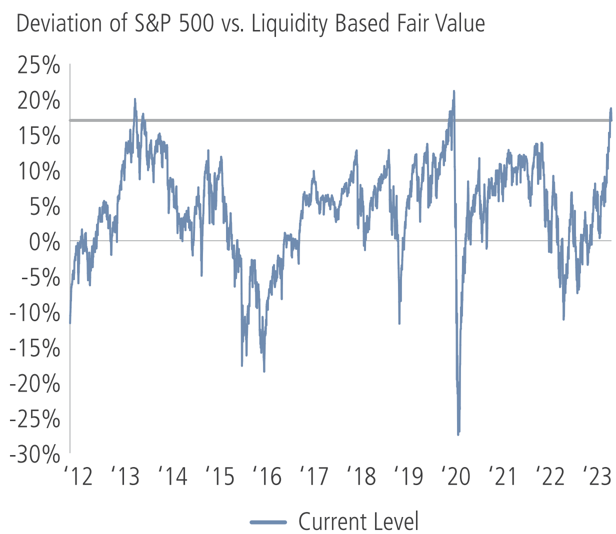
In our view, this could spell bad news for equities in the near term. As last fall's fear shifted to greed, we find investors are now significantly overbought relative to liquidity, especially among mega-cap growth stocks. As a result, we believe the risk of a swift downturn appears at its highest level since February 2020.

Indeed, a recent Citigroup report finds a strong and statistically significant relationship ($R^2$=96% over 14 years) between central bank liquidity and market levels (see left chart in figure 6);[16] the correlation grows even stronger when periods of excessive optimism are excluded. This suggests to us that overbought markets relative to liquidity, which is what's happening right now (see right chart in figure 6), tend to sell off and realign with the prevailing liquidity trend. Given the recent run-up in equities and impending liquidity withdrawal, we believe the market appears particularly vulnerable in the coming months.

**FIGURE 6: EQUITY MARKETS TEND TO TRACK LIQUIDITY—AND MARKET LEVELS ARE STRETCHED VS. LIQUIDITY**




Source: Citi APAC. Data as of June 21, 2023.




Source: Citi APAC. Data from Jan 1, 2009 to June 21, 2023.

We also find trading patterns indicate that momentum-driven investors, who were caught underinvested early in the year, are now pushing the market higher, in turn attracting more algorithmic buying and enticing discretionary investors to participate in the rally. Such momentum chasing, in our view, does not end well: Momentum-driven algorithms can swiftly reverse their positions and sell if market momentum falters.

[15] U.S. Federal Reserve, ECB, and U.S. Department of Treasury.
[16] Citi APAC, "Is This Time Different? Melt Up or Melt Down? - Dr. Mo's Take", June 16, 2023.

In fact, since May 25, Citigroup finds that price and volume "islands" have formed—meaning that much of the buying volume has occurred above the levels observed on May 25. Consequently, if stock prices decline below the May 25 level, there may likely be a rapid unwinding of these positions, akin to the sell-off of Chinese tech stocks earlier this year. Currently, developed equity markets that appear the most extended—and thereby most susceptible to a decline in liquidity—include the Nasdaq, Nikkei, Euro Stoxx 50, KOSPI and Taiwan TWSE.[17]

In addition to our concerns about liquidity and the influence of programmatic trading, we believe overall equity valuations are still by no means cheap. For context, the forward P/E (based on our estimate of normalized earnings) on the S&P 500 as of June 14 is 21.8, versus the long-run average of 15.[18] Peeling back those numbers a bit reveals a bifurcation between the top 7 MEGA stocks, with an average P/E of 32, and all the rest at 16.5, closer to the market's long-run average. While non-MEGAs may appear less risky from a valuation perspective, their earnings tend to be sensitive to the economy; if downward revisions gather steam during a downturn, non-MEGAs may start to look more expensive than they do today.

Meanwhile, the intra-index dispersion, a reliable measure of economic risk internalized by the market, is only 1.2 standard deviations above average—in a recession, this figure tends to be multiple standard deviations higher—and the NASDAQ features an equity risk premium of 2.7%, its lowest since 2011.[19] All of these figures appear to us inconsistent with the beginnings of a bull market. And while the recent rally has been driven by a handful of mega-cap stocks, other assets sensitive to economic growth—such as value stocks, small caps, industrial metals and oil—have not gone along for the ride.

There are yet more warning signs, in our view. Earnings quality of the S&P 500 is at a three-decade low[20] and the write-off cycle, we believe, has barely begun. We find that earnings write-offs tend to pick up pace at the end of a bull market as companies mop up their accounting excesses from the previous cycle. In our view, this is a substantial and underappreciated risk to earnings in the ongoing downcycle.

Finally, loan availability has worsened across much of the economy as credit standards have tightened.[21] Credit is the oxygen of growth—that's why we'd prefer to see a broad easing of lending standards before having confidence in sustainable economic and earnings growth on which thriving markets are built.

[17] Ibid.
[18] Neuberger Berman, FactSet.
[19] Neuberger Berman, FactSet, Empirical Research Partners, and Societe Generale. Data as of May 31, 2023.
[20] Neuberger Berman, FactSet. Data as of May 31, 2023.
[21] Ibid.

# Potential Risks to Our View

Our base-case view on equities calls for asymmetric risk to the downside—meaning that if we're wrong, the markets might move up modestly, but if we're right, the recessionary decline could be significant. While we maintain our cautious stance and conviction in our analytical framework, we also continue to interrogate our underlying assumptions and aim to anticipate unforeseen outcomes.

We see three main risks to our prognostications. First, consumers may keep spending at a healthy clip; second, companies—especially mega-cap stars—could keep making piles of profit; and third, oil prices could drop, spurring temporary growth. All of these effects, while not probable in our view, could sustain the equity rally and stave off a broader downturn.

**Bullish Case #1: Persistent Consumer Resilience**

Despite higher levels of inflation, real disposable income (RDPI) could turn up and counter the Fed's monetary tightening. In this scenario, strong RDPI—combined with a 30-year low in consumer indebtedness—could support consumption and lower the likelihood of a recession, or at least mitigate its severity. That strong consumption could also offset credit tightening as consumers, especially those in the top quartile—where dis-savings momentum has been particularly strong—work through an estimated $1 trillion in excess savings.

Wealth effects could spur spending, too. The wealthiest 50% of Americans (who account for about 68% of consumption) appear to feel flush: Total U.S. household net worth is currently $140 trillion, which is about $15 trillion above our estimated pre-COVID trend line; meanwhile, cresting inflation and rising real positive wage growth could ease discomfort and support consumption among the bottom 25%.[22]

**Our Take**

The depletion of excess savings tends to moderate as economic uncertainty rises. Over the past two months, savings depletion has moderated to $65 billion per month from roughly $100 billion per month.[23] Growing evidence shows that U.S. consumers are rebuilding their savings buffers as monetary stresses mount. The U.S. savings rate has picked up and is now at 4.1% compared to the trough of 2.7% in June 2022. Higher savings, we fear, would most likely hinder consumption.[24]

At the top end of the economic ladder, we think there is enough monetary tightening already in the pipeline to induce a stock market sell-off in the next 12 months, which could cause top-quartile consumers, who we estimate account for roughly 40% of total consumption and whose consumption patterns strongly correlate with their net worth, to rein in their post-COVID profligacy.

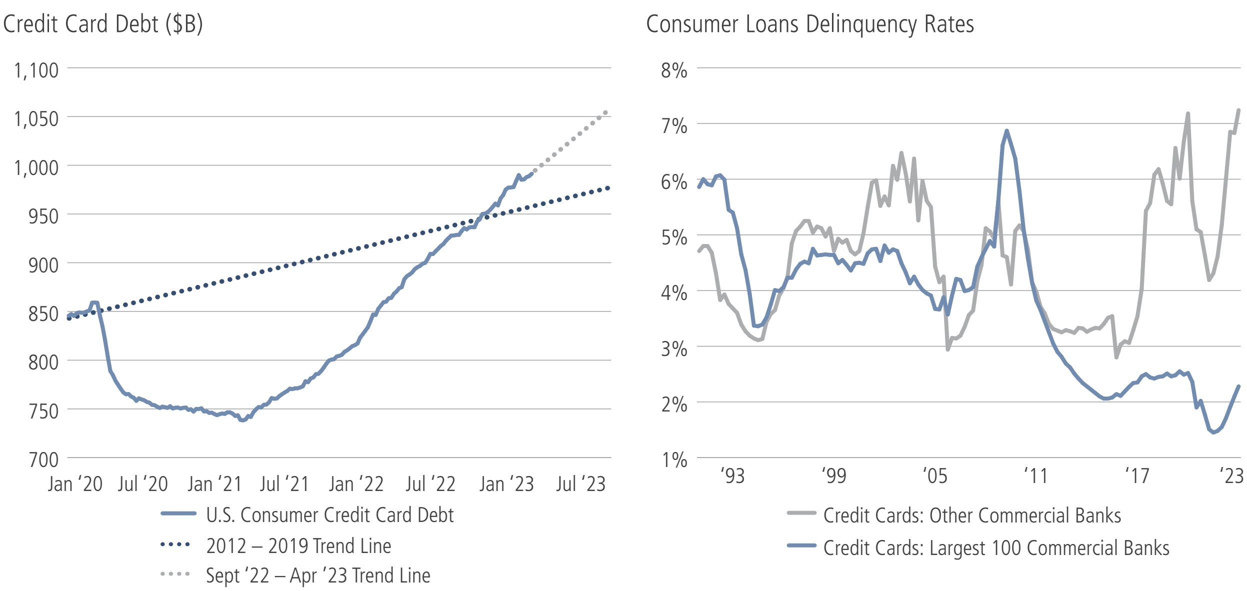
If consumption does manage to stay strong, we fear it could drive up sticky inflation in the absence of rapidly expanding labor supply. If this happens, we believe the Fed would be forced to resume rate hikes until demand cools via the net reduction in employment or the negative wealth effect from falling stock prices.

We believe a notable difference between this slowdown and previous ones is the pain felt by high-income workers from anemic real wage growth, hiring freezes and layoffs in high-paying sectors, such as TMT and Financials. Retail sales have *declined* in eight out of the past 12 months, while earnings transcripts reveal that inflation-squeezed consumers across the income spectrum are increasingly "trading down" in favor of less expensive brands. Indeed, mentions of weak demand spiked to near-record highs among Consumer Discretionary companies.[25]

[22] Neuberger Berman, FactSet. Data as of April 30, 2023.
[23] Ibid.
[24] Neuberger Berman, FactSet. Data as of May 31, 2023.
[25] Neuberger Berman, FactSet. Data as of May 31, 2023.

Meanwhile, we believe overall financial stress is simmering. As more consumers rely on credit to cover living expenses, credit card balances have grown four times faster than the pre-pandemic average, and 30% faster than the September '22 to January '23 trend line; now the cracks, in the form of rising auto and credit card delinquencies, are starting to show (see both charts in figure 7). Finally, leading employment indicators appear to suggest to us that net job losses and a pickup in the unemployment rate is imminent.[26]

**FIGURE 7: FINANCIAL STRESS IS STARTING TO SIMMER AS CREDIT BALANCES AND DELINQUENCIES RISE**




Source: Neuberger Berman and FactSet. Data as of June 2, 2023.

**Bullish Case #2: Persistent Corporate Resilience**

We think there are two scenarios in which corporate America could prove surprisingly resilient and extend the bull rally.

**Scenario #1: Mega-cap growth stocks carry the day**

As of mid-June, seven MEGA companies represented 28% of the S&P 500 market cap and 17% of earnings.[27] If MEGA earnings—now at the bottom end of their collective trend channels—stage a rebound, they could pull the rest of the index with them.

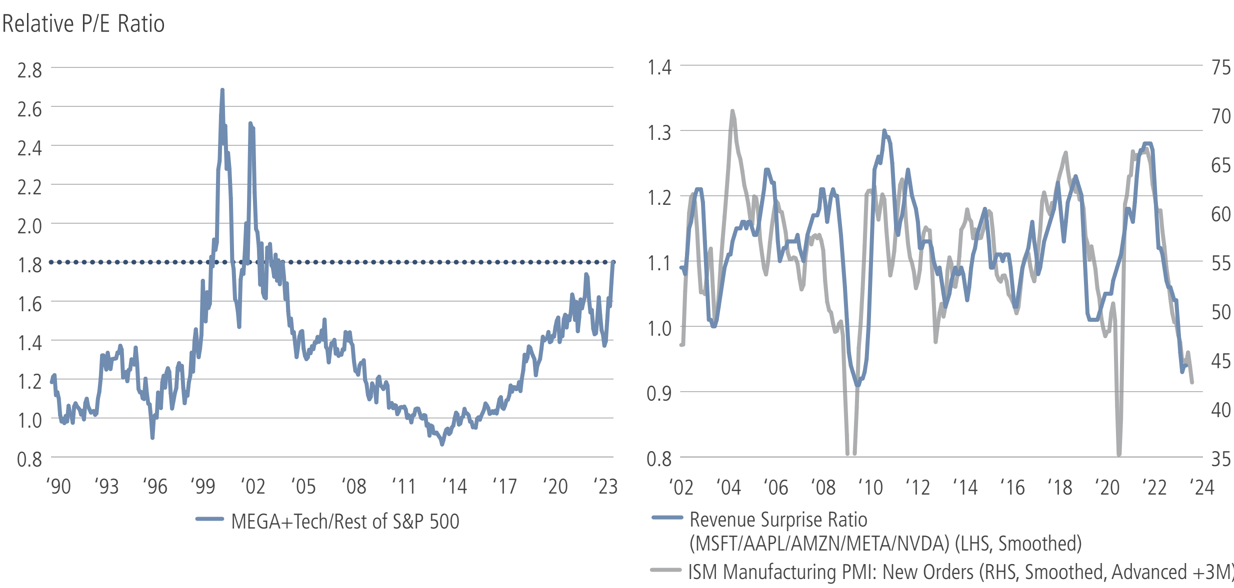
Indeed, we believe many investors now perceive MEGA stocks as semi-utilities of the modern economy and price them as defensive stocks.[28] As sales slowed from the stratospheric post-COVID peak, many of these giants reduced headcount to match their slowing growth (with room for more cuts if necessary), which could support their margins in the future and make them effectively less cyclical. This scenario could lead to a shallower S&P 500 earnings decline than we have been expecting.

[26] Neuberger Berman, FactSet, Federal Reserve Bank of Kansas City, Conference Board, and FIBER.
[27] Neuberger Berman, FactSet. Data as May 31, 2023.
[28] Empirical Research Partners. Data as of May 31, 2023.

**Our Take**

While it's possible a frothy mix of momentum chasing and irrational exuberance over AI could coax the S&P 500 to levels last seen in January 2022, we think valuations still look overvalued. At a relative P/E ratio of 1.8, MEGA stocks are more expensive relative to the rest of the S&P 500 than they've been since 2003 (see the left in chart figure 8). MEGAs also appear very dear in terms of the equity risk premium (ERP): Even after accounting for their higher EPS growth expectations, the NASDAQ 100 index (an excellent proxy for MEGAs) hasn't been as richly valued relative to the ERP since 2011.[29] And while MEGA earnings tend to be only about half as sensitive to the economy versus the rest of the S&P 500 (a defensive trait), their average beta of 1.2 implies they are still quite sensitive to swings in the index.[30] In short, we fear MEGAs may not offer as much cushion in a recessionary downturn as markets may hope.

**FIGURE 8: MEGACAP GROWTH STOCKS APPEAR DEARLY PRICED VS. THE REST OF THE MARKET**




Source: Neuberger Berman, FactSet and Deutsche Bank. Data as of May 31, 2023. MEGA=MSFT, AAPL, AMZN, GOOGL, GOOG, FB, V, MA, NVDA, NFLX, ADBE, TSLA (since Dec 2020). For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Past performance is no guarantee of future results.

Second, we worry that tech revenue is more cyclical than investors might appreciate. For instance, the revenue surprise ratio for MEGAs closely tracks the trajectory of ISM new orders (a cyclical indicator), with a lag of three months (see the right chart in figure 8); also, cyclical and global indicators such as the developed markets PMI and the U.S. Dollar explain well over half the variation in tech sector earnings, yet both measures are now moving in the wrong direction for the sector.

Adding to the potential cyclicality is the sector's sizable exposure to the financial services sector, which accounts for 20% of tech revenues. For context, consider that the IT demand pull-forward during COVID was as extreme as during the run-up to Y2K (when banks were concerned about systems functioning past 1999); yet the frenzy quickly subsided, and tech sales dropped by 28% over the next six quarters.[31]

[29] Neuberger Berman, FactSet, and Société Générale. Data as of May 31, 2023.
[30] Neuberger Berman, FactSet. Data as of April 30, 2023.
[31] BofA. Earnings Tracker, 1Q Preview: Three Factors to Watch, April 13, 2023.

**Scenario #2: Monetary tightening has weaker negative impacts**

Historically, tighter credit tends to curb capital expenditures, denting earnings across the industrial supply chain. Yet given broadly modest capex layouts over the past 10 years, the sensitivity of capex to credit could be lower this time around. Post-GFC, 38% of cash flow was spent on capex (vs. 52% pre-GFC), 21% on dividends (vs. 17%), and 24% on share buybacks (vs. 13%);[32] furthermore, industrial companies have substantially de-levered since the GFC, suggesting limited debt-driven PP&E investment over the past 10 years.

Corporate balance sheets could also prove surprisingly resilient. In the aggregate, acceptable leverage and higher-than-average cash levels could help blunt the pain of monetary tightening.[33]

**Our Take**

Even though leverage in the aggregate is reasonable, corporate leverage among the 20% most-levered companies in the S&P 500 is at a historic high,[34] which could make them financially vulnerable to the Fed's aggressive monetary tightening.

Meanwhile, over the last two quarters, operating leverage has turned decisively negative across the S&P 500 (excluding the energy sector) as costs have grown faster than sales. Companies now appear especially dependent on raising prices to offset falling margins and sales volume, even as consumers continue to trade down and reduce unit consumption. History suggests that it is difficult to maintain margins amidst weakening demand, which eventually leads to a downturn in earnings.

As things stand, consensus earnings—measured in nominal terms—are 9% above their normalized trend level,[35] and growth expectations remain aggressive. Even growth sectors that cut estimates in 2022 still have significant margin improvement penciled in; for example, the consumer discretionary sector, which tends to be significantly affected by monetary tightening, is expected to grow 21% over the next year.[36] Despite this enthusiasm, we worry that disinflationary recessions can be particularly punitive to earnings as companies are unable to pass along price increases and sales volumes dwindle.

Finally, earnings quality remains at a multi-decade low,[37] which poses an additional risk to earnings as aggressive accounting accruals get reversed and write-offs potentially start to mount, which has been the case in every economic downturn over the past three decades. Write-offs can lead to faster earnings declines than consensus anticipates and ultimately lead to greater declines in stock prices than would be suggested by their historical betas. In the first quarter of 2023, companies that missed sales and earnings estimates were punished at over twice the historical average.[38]

**Bullish Case #3: Falling Oil**

An unexpected $25- to $35-per-barrel drop in oil prices could stimulate global growth—as when Brent Crude dipped in the first half of 2006, helping spur growth the following year. We believe a similar decline could trigger a one-time boost to growth, perhaps delaying a recession until mid- to late 2024; eventually, however, cheap oil would likely fuel higher inflation—ultimately pressuring the Fed to raise rates even more aggressively to quash it, thereby choking off earnings growth and investor optimism.

**Our Take**

In our view. this scenario seems unlikely given current geopolitical tensions, current supply/demand balances, and OPEC's unwillingness to increase production to bring down oil prices.

[32] Ibid.
[33] Ibid.
[34] Neuberger Berman and FactSet. Data as of May 31, 2023.
[35] Neuberger Berman, FactSet. Data as of May 31, 2023.
[36] Ibid.
[37] Ibid.
[38] BofA Securities. Data as of May 31, 2023.

## What to Expect When You're Expecting

A wise man once said that successful investing was about anticipating other people's anticipation. While the U.S. economy is not quite in the throes of a recession, we believe it's prudent to dissect historical patterns in the market's appetite for risk as a recession progresses. In our view, these patterns can help us identify the phase change from risk-aversion to risk-seeking that accompanies the transition from a bear market into the next bull run.

While stocks tend to peak just before the onset of a recession (a first-derivative effect), market troughs tend to emerge when economic activity is still deteriorating but that pace of deterioration is starting to slow (a second-derivative effect). In a recession, it might seem natural to wait for the data to improve (as opposed to falling less rapidly) before adding portfolio risk, but this confirmation can be costly: The S&P 500 typically rallies 27% in the median four-month period between a market trough and the official end of a recession. Cyclical sectors can rally twice as much—and the hardest-hit sectors even more![39]

Trying to time market bottoms with precision has always been a fool's errand. However, we find that assessing second-derivative improvement in the economy and using it as a signpost for increasing portfolio risk is not only systematically feasible, it can also be rewarding.

To that end, we have compiled a list of 24 economic indicators that we believe have historically signaled second-derivative bottoms and heralded the transition from risk-off to risk-on during the last six recessions. On average, these indicators bottomed between one month before and two months after the actual stock market bottom.

We believe having a battery of indicators rather than a few favorites has its advantages. First, it helps avoid the tendency to pick and choose the ones that agree with preconceived opinions and ignore the ones that don't; second, not all indicators work as expected across all cycles. Surveying a broad selection of indicators, in our view, paints a clearer overall picture of second-derivative effects and ultimately helps investors better gauge their appetite for risk.

As recession intensifies, the number of signals turning positive paradoxically tends to gather momentum as the rate of economic deterioration reaches its peak, which is often near the market bottom. Typically, a third of the indicators give the trough signal coincidentally with, or prior to, the market bottom, and two-thirds trough within two months of the market trough (see figure 9). Helpfully, much of the change tends to happen in a relatively short span, which we believe makes the signals actionable in real time.

[39] Neuberger Berman, NBER and FactSet.

**FIGURE 9: A BATTERY OF ECONOMIC INDICATORS CAN HELP FIND MARKET TROUGHS IN RECESSIONS**

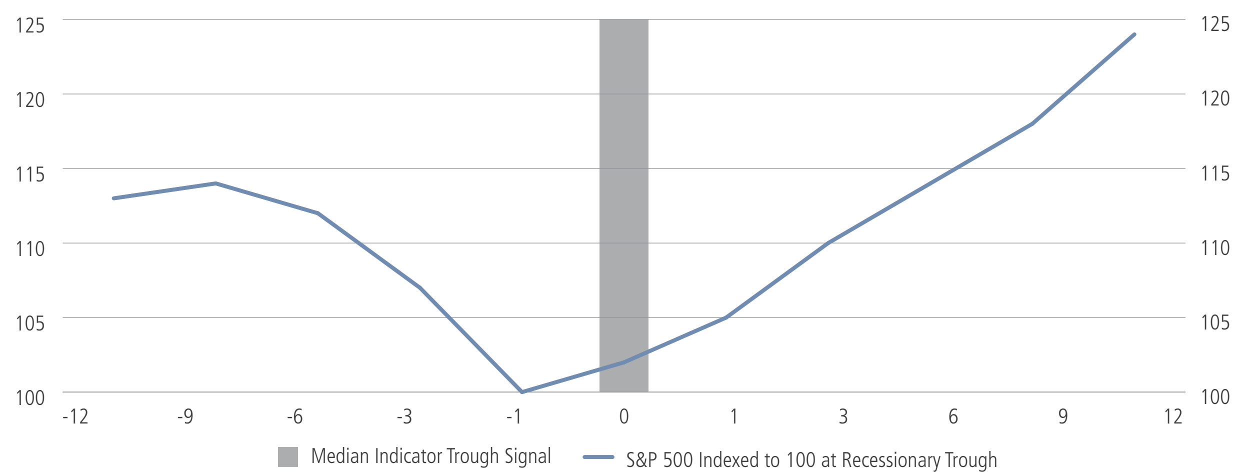
| General Economic Data | Median Lag From Market Trough (M) |
|---|---|
| Earnings Revisions Ratio - ACWI | +2 |
| Earnings Revisions Ratio - S&P 500 | +2 |
| NB Cyclical Global Economic Index | +2 |
| NB Cyclical Global Market Prices Index | +2 |
| S&P 500 NTM PE | 0 |
| U.S. Coincident Economic Index (2nd Der.) | 0 |
| U.S. Coincident Index - Philly Fed (2nd Der.) | +1 |
| U.S. Coincident vs. Lagging Indicators (2nd Der.) | +2 |
| U.S. Economic Surprise Index | -1 |
| U.S. Leading Economic Index (2nd Der.) | -1 |
| Valuation Dispersion | 0 |
| **Housing** | |
| NAHB Traffic Index | +1 |
| Building Permits | +1 |

| Industrial/Trade Activity | Median Lag From Market Trough (M) |
|---|---|
| Durable Goods New Orders Minus Inventories (2nd Der.) | -2 |
| ISM Mfg: New Orders Minus Inventories | -1 |
| OECD Industrial Confidence Index (2nd Der.) | -1 |
| Philly Fed Price Paid Minus Received | 0 |
| World Industrial Production Index (2nd Der.) | +2 |
| World Trade Price Index (2nd Der.) | -1 |
| World Trade Volume Index (2nd Der.) | -1 |
| **Employment** | |
| Employment Trend Index (2nd Der.) | +2 |
| NFIB Plans to Increase Employment | +1 |
| State Unemployment Rate 6M Diffusion Index (2nd Der.) | -4 |
| Unemployment Rate (2nd Der.) | +1 |

Note: In a recession, a positive lag implies that, on average, the stock market tends to bottom **before** an indicator's lowest point. A **negative** lag implies that, on average, the stock market tends to bottom **after** an indicator's lowest point.

Source: Neuberger Berman and FactSet. Analysis includes recessions beginning in 1980, 1981, 1990, 2001, 2007 and 2020. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Past performance is no guarantee of future results.

**Median S&P 500 Performance From Indicator Troughs Across Six Recessions**




Note: This chart demonstrates the efficacy of our battery of 24 indicators in marking bottoms in equity cycles during recessions.
Source: Neuberger Berman and FactSet. Analysis includes recessions beginning in 1980, 1981, 1990, 2001, 2007 and 2020.

While we believe restraint is prudent in the current economic and policy setting, we also think it is equally important for investors is to begin thinking about the transition from de-risking their portfolios to upping their appetites. That includes minding crucial signposts that we believe help separate signal from noise and navigate swings in investor sentiment throughout the next downturn.

## Index Definitions

The S&P 500 Index consists of 500 U.S. stocks chosen for market size, liquidity and industry group representation. It is a market value-weighted index (stock price times number of shares outstanding), with each stock's weight in the Index proportionate to its market value.

Goldman Sachs Financial Conditions Index (FCI) is a weighted average of riskless interest rates, the exchange rate, equity valuations, and credit spreads, with weights that correspond to the direct impact of each variable on GDP.

The **NASDAQ 100 Index** is a basket of the 100 largest, most actively traded U.S companies listed on the Nasdaq stock exchange.

The **MSCI ACWI (All Country World) Index** is a free-float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. As of August 31, 2022, The MSCI ACWI consists of 47 country indices comprising 23 developed and 24 emerging market country indices. The developed market country indices included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indices included are: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey and the United Arab Emirates.

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