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Equity Market Outlook 3Q 2022

Economic and Market Review: Key Considerations for Equity Investors

The stock market's steep descent in the second quarter reflects increasing concern among investors about the rising risk, timing and impact of a recession in the U.S. In this *Outlook*, we aim to provide our framework for assessing the risk of recession, navigating a recessionary environment and understanding what might be going on in the market.

Our analysis suggests that we are increasingly likely to enter a recession, but regardless of whether we do or not, we think the coming months are going to feel like a recession as the decline in stock market valuations in the first half of the year are likely followed by a decline in corporate earnings forecasts in the second half.

NEUBERGER | BERMAN

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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A Preposterous Shadow, Lengthening in the Noontide of Prosperity

The U.S. economy remains in the Slowdown rather than all-out Early Contraction phase of the growth cycle, but in the past three months since our last *Outlook*, economic activity data has deteriorated rapidly. The economy now appears headed toward the Early Contraction phase of a recession.

What exactly is a recession? One is tempted to recall Charles Lamb's immortal description of a poor relation: "a preposterous shadow, lengthening in the noontide of your prosperity." But perhaps it is more constructive to refresh ourselves on the guidelines provided by the 102-year-old National Bureau of Economic Research (NBER), which is tasked with defining and dating U.S. recessions.

It may surprise some to learn that NBER's definition does not include the need for there to be two consecutive quarters of negative GDP growth, or for that matter even a single quarter of negative GDP growth. The 2000 recession did not have two consecutive quarters of negative GDP growth; in fact, GDP increased +0.1%. The 2020 recession had only two months of GDP contraction. Conversely, the NBER did not define the negative quarterly GDP growth in 2011 and 2014 as a recession.

According to NBER, a recession is a significant decline in economic activity that is spread across the economy and that lasts more than a few months. Each of the three criteria for assessing economic decline—depth, diffusion and duration—needs to be met individually. NBER determines the starting and ending months of recessions based on the following economic indicators:

1. Nonfarm payroll employment and employment as measured by the household survey

2. Real personal income less transfers

3. Industrial production

4. Wholesale-retail sales adjusted for price change

5. Real personal consumption expenditures

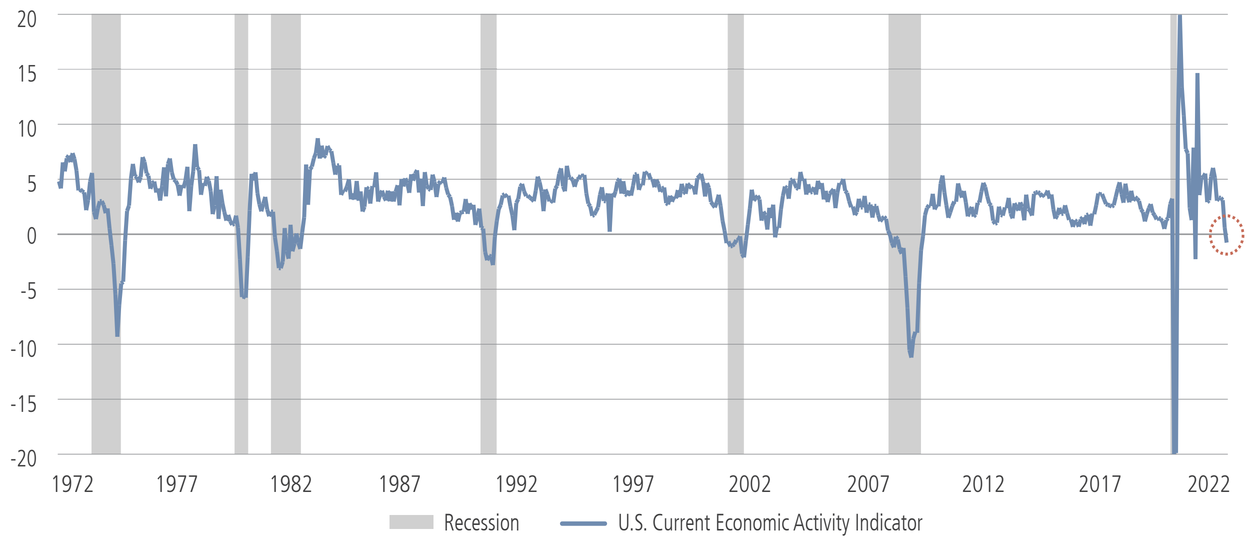
The first four are included in the Conference Board's Coincident Economic Index, which quantifies economic activity that is broader in its scope than GDP. This index is produced monthly and is therefore a timelier indicator than GDP data, and we recommend investors monitor it regularly in the months ahead.

We assess U.S. recession risk using a combination of Conference Board's Leading Economic Index (LEI) and Goldman Sachs' Current Activity Index (CAI), and on that basis the U.S. economy appears to be sliding down the recession path.

First, based on our analysis of the recessionary and slowdown patterns of the past 50 years, the LEI growth rate has dropped to a level that suggests a recession probability of 70 – 80%. Second, a CAI that aggregates the breadth of current U.S. economic activity into an index has just turned negative. Given its low propensity for giving false alarms, our assessment of the probability of a U.S. recession, based on this indicator alone, is now 80%. Based on all of the data, we believe the subjective probability of a U.S. recession in the next two to four quarters is over 90%—and we think it likely to arrive sooner rather than later.

THIS INDICATOR, RARELY NEGATIVE OUTSIDE OF A RECESSION, JUST DIPPED BELOW ZERO

Goldman Sachs U.S. Current Activity Index



Source: Bloomberg, Goldman Sachs. Data as of June 30, 2022. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed.

Lastly, we believe it is crucial for investors to remember that the closer the economy gets to recession, the more likely it is that any kind of economic shock will tip the balance. A worsening of the monkeypox outbreak, a geopolitical event or a further surge in the oil price, for instance, is likely to make recession a near certainty. This degree of susceptibility has been absent in the past two years when the U.S. economy was strong or accelerating, which is why it was able to weather disruptions caused by COVID variants, the sevenfold increase in the oil price and the conflict in Ukraine.

What to Expect in a Typical Recession

In a typical post-war recession that lasted 10 months, real GDP contracted -2%, nominal GDP decelerated -5%, headline Consumer Price Index (CPI) inflation dropped by four percentage points, the unemployment rate increased +3.5%, and industrial production shrank -9%. The S&P 500 Index dropped -25% peak-to-trough, bottoming out four months before the recession ended, and rallying 27% from that trough through the end of the recession.

Of course, there is no "typical" recession. The economic damage has varied widely in its depth, duration and diffusion across the economy. We classify post-war U.S. recessions as mild, severe and disinflationary. Given the intention of U.S. Federal Reserve (Fed) to rein in inflation, we think the disinflationary classification is the best analog for what may be ahead. These recessions are characterized by strong deceleration in inflation, and on average their economic damage has tended to fall in between what might be expected from mild and severe recessions.

Economic and Market Impact of Four Types of Recession in the U.S.

Median Postwar Recessions: Peak to Trough Change	All Recessions	Mild Recessions	Disinflationary Recessions	Severe Recessions
Real GDP	-2%	-1%	-3%	-4%
Nominal GDP y/y	-5%	-3%	-10%	-8%
CPI Inflation y/y	-4%	-3%	-5%	-6%
WTI Oil*	-41%	-32%	-69%	-69%
Unemployment Rate	3.5%	1.9%	3.9%	5.4%
Industrial Production	-9%	-6%	-11%	-16%
S&P 500 EPS	-13%	-12%	-14%	-14%
S&P 500 EPS y/y	-21%	-20%	-24%	-34%
S&P 500 P/E Ratio	-21%	-14%	-23%	-29%

*Analysis includes only the recessions starting in 1980 onwards.
Source: Neuberger Berman, FactSet and Bloomberg. Data as of May 31, 2022. Mild recessions began in 1960, 1969, 1980, 1990, 2000; aggregate economic activity declined by more than -4% and real economic activity declined by more than -2%. Disinflationary recessions began in 1948, 1953, 1957, 1981, 2008, 2020; nominal GDP growth declined by more than 6%. Severe recessions began in 1973, 2008, 2020; aggregate economic activity declined by more than -6% and real economic activity declined by more than -3%. For illustrative purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**

More Stock Market Downside Risk as Recession Probability Rises

By our estimate, the Early Contraction phase of the investment cycle is likely to persist for between two and four quarters.

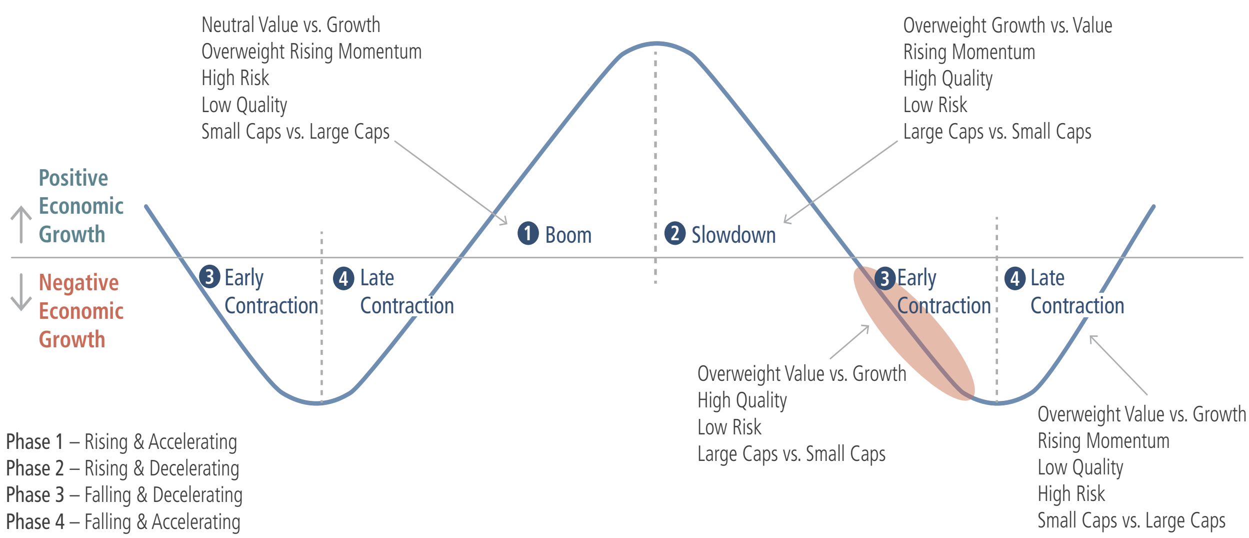
In this phase, we continue to favor similar equity exposures to those in the Slowdown phase—as a recession is nothing more than an economic slowdown that didn't stop when growth hit zero. That means lower-beta exposures, which have generally performed well in the first half of 2022. For example, the MSCI USA Minimum Volatility Index outperformed the MSCI USA Index by 8.5 percentage points, and the MSCI All Country World Minimum Volatility Index outperformed the MSCI ACWI Index by 8.2 percentage points.

THE RECESSION PHASE HAS TENDED TO BE TORTUROUS FOR EQUITIES AND IN OUR VIEW CALLS FOR DEFENSIVE EXPOSURES

S&P 500 Index performance during the four phases of the growth cycle, 2000 – 2022

01/2000 – 06/2022	Early Contraction	Late Contraction	Boom	Slowdown
Average Ann. Return	-23.5%	16.1%	24.3%	-2.4%
Median Ann. Return	-8.5%	13.5%	25.8%	4.8%
St. Dev.	21.6%	21.1%	10.7%	13.6%
Return/Risk	-0.39	0.64	2.41	0.35
Time Spent	13%	9%	42%	36%

Typical equity factor choices for the Early Contraction phase of the growth cycle



Source: Neuberger Berman, FactSet, Bloomberg (top); Neuberger Berman, FactSet, Bank of America (bottom). Data as of May 31, 2022. For illustrative purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**

What's Priced in the Stock Market, What's Not

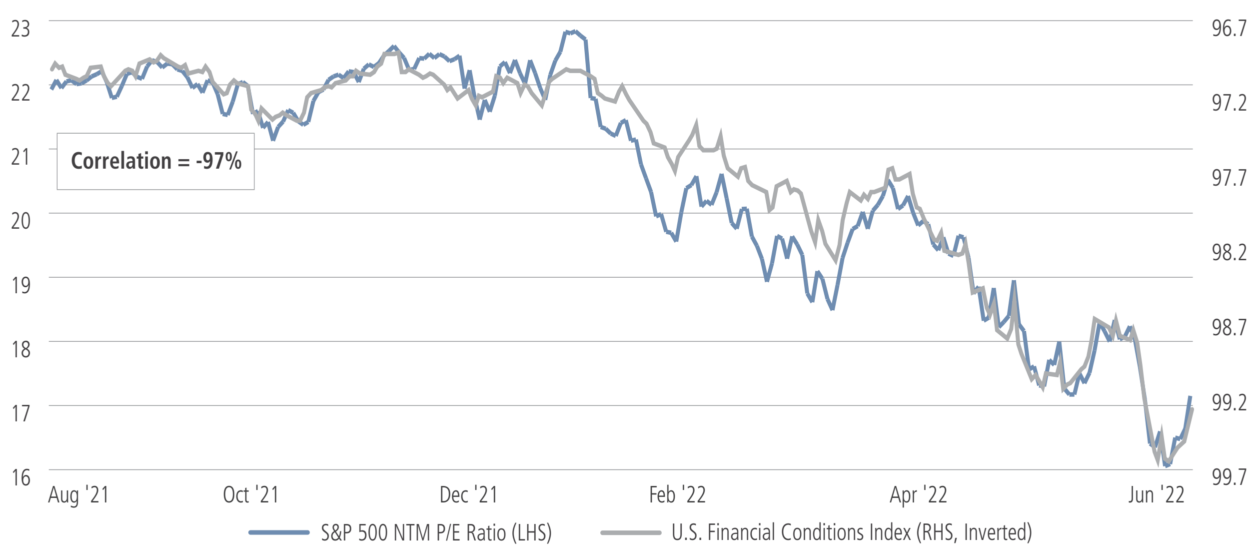
Equity return can be thought of as the sum of the change in valuation, the change in forward earnings estimates, and dividends. Our analysis suggests that the year-to-date decline in the S&P 500 Index was almost entirely driven by valuation compression. Meanwhile, both forward earnings estimates and dividends increased.

Fed-induced tightening in financial conditions explained most of the valuation compression and much of the sell-off. Notably absent was any meaningful attribution to changes in expectations of economic growth. In our measurements, the market appears to have corrected much of the valuation excess carried over from the pandemic era. Earnings, however, remain elevated and have increased year-to-date as inflation has risen.

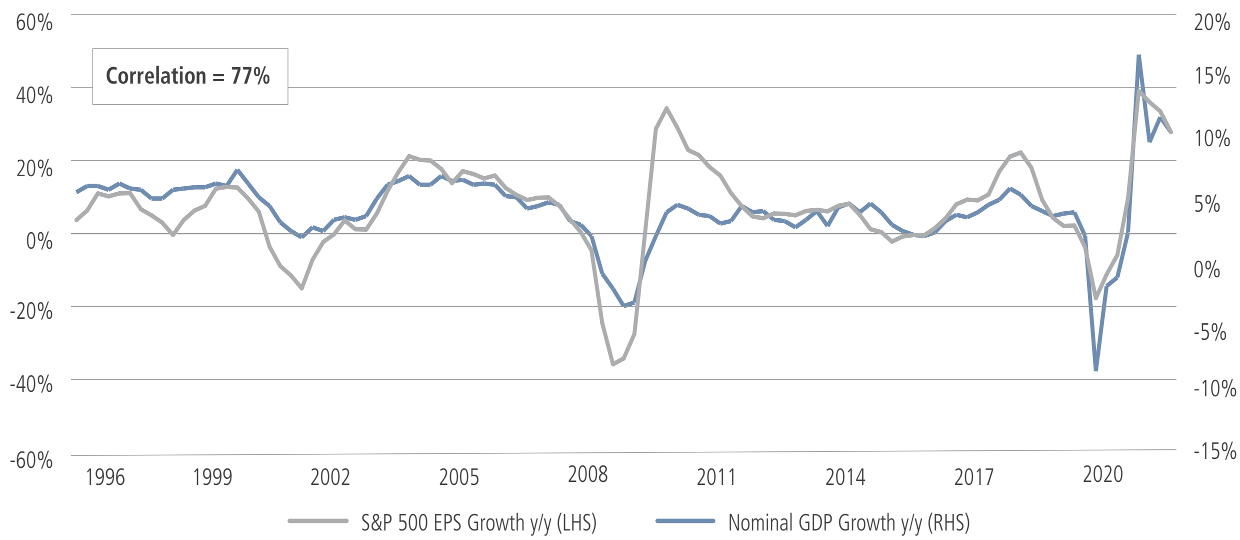
As the Fed's determined monetary tightening campaign starts to bring inflation down over the coming months, we expect a sharp deceleration in nominal economic growth (which is the sum of real growth plus inflation). We also anticipate a sharp deceleration in earnings as nominal growth slows, because earnings are nominal in nature.

S&P 500 INDEX EARNINGS ESTIMATES HAVE YET TO ADJUST, AND ARE VULNERABLE TO DISINFLATION

This year's sell-off has been almost exclusively due to valuation compression, driven by tightening financial conditions



Historically, S&P 500 Earnings have correlated strongly with U.S. nominal GDP growth, which would likely decline with disinflation



Inflation has kept nominal forward earnings estimates high, relative to the decline in economic activity

Source: Neuberger Berman, Bloomberg, FactSet (all); Conference Board (bottom). Data as of June 27, 2022 (top) and June 30, 2022 (middle and bottom). NTM = Next Twelve Months. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**

How far might earnings decline?

In line with the median experience of the past six disinflationary recessions starting in 1948, 1953, 1957, 1981, 2008 and 2020, our analysis of the data suggests that at market trough, earnings growth is likely to have decelerated to -25%, year-over-year. We believe this presents a real risk to the equity market. In the event of a disinflationary recession, the trough for S&P 500 Index earnings could fall below $200 per share and the Index trade below 3,000.

Framing the Downside Risk for the S&P 500 Index in a Disinflationary Recession

Peak to Trough Change	Strong Slowdown	Mild Recessions	Disinflationary Recessions	Severe Recessions
Current S&P 500 NTM EPS ($/share)	238	238	238	238
Est. Change in EPS y/y	-10%	-15%	-25%	-35%
Est. NTM EPS at Trough	214	202	179	155
Peak NTM P/E	21.3	21.3	21.3	21.3
Est. Change in NTM P/E Ratio	-20%	-20%	-25%	-30%
Est. S&P 500 NTM P/E Ratio at Trough	17	17	16	15
Est. S&P 500 at Trough	**3650**	**3450**	**2850**	**2300**
Est. S&P 500 Peak to Trough Decline	**-24%**	**-28%**	**-41%**	**-52%**

Source: Neuberger Berman, FactSet, Bloomberg. NTM = Next Twelve Month. Est. = Neuberger Berman Estimate; the estimates are closely based on historical experience with some small discretionary adjustments by Neuberger Berman. Data as of June 30, 2022. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal.
Past performance is no guarantee of future results.

While we have offered our view on the likelihood of recession and its potential severity, and on the level and timing of the market bottom in the event of a recession, our most important conclusions are these:

1. The likely decline in inflation makes a decline in earnings growth likely

2. That earnings decline is not priced in the market and therefore poses a significant risk to stock market levels

3. Whether we enter a recession or not, the likely strong disinflationary nature of the economic downturn ahead is likely to feel like a recession to equity investors

4. Inflationary tilts helped equity performance in the first half of 2022, but could begin to subtract from performance should we enter a disinflationary downturn

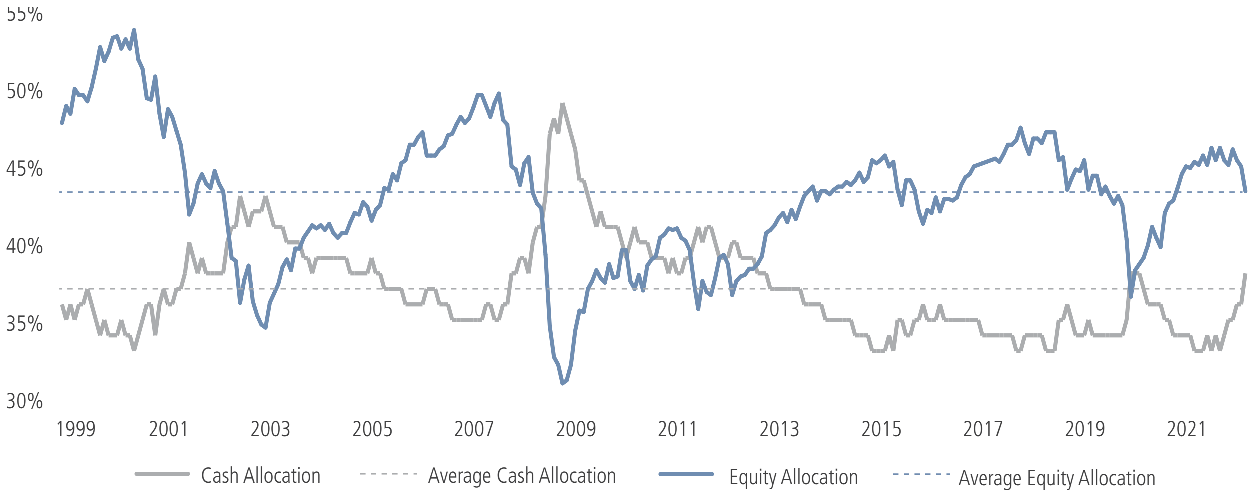
5. Global non-bank investors' allocation to equity has moderated, but only back to its 22-year average; in our view there is room for equity allocation to decline further

6. For investors yet to de-risk their portfolios, it is not too late to reduce the beta exposure, in our view

7. We think investors who have de-risked portfolios should consider maintaining a low-beta stance until forward earnings estimates and inflation have come down meaningfully

NOT ENOUGH DE-RISKING?

Global non-bank investors' allocation to equities and cash as a % of total holdings, including bonds



Source: JP Morgan, as of May 31, 2022. For illustrative purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**

What Could Go Right

Few things are certain in life, and there remains a possibility that a recession is avoided. We see three fairly realistic non-recession scenarios.

For one, the data used to construct the indicators on which we base our assessment could be revised up substantially, and in hindsight look less recessionary than they do today.

Second, a steep decline in the price of oil in the weeks ahead could meaningfully reduce inflationary pressure on real incomes, quickly turning real income growth from negative to positive, especially for the bottom 50% of consumers. That could also reduce the need for the Fed to continue tightening monetary policy and could potentially veer the economy away from its recessionary track.

The third scenario that could potentially prevent a recession is the Fed immediately backing off from its aggressive tightening campaign and easing policy in recognition of rapidly rising recession risks, combined with a strengthening of the nascent recovery in China, which could support global growth.

We assign each one of these scenarios a probability of less than 3%, which means we assign the probability of any one of them happening, and a recession thereby being avoided, a probability of less than 10%. Therefore, a recession ahead is now the modal case in our market outlook.

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.

The **MSCI USA Minimum Volatility Index** aims to reflect the performance characteristics of a minimum variance strategy applied to the large and mid cap USA equity universe. The index is calculated by optimizing the MSCI USA Index, its parent index, in USD for the lowest absolute risk (within a given set of constraints). Historically, the index has shown lower beta and volatility characteristics relative to the MSCI USA Index.

The **MSCI ACWI Minimum Volatility Index** aims to reflect the performance characteristics of a minimum variance strategy applied to large and mid cap equities across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries. The index is calculated by optimizing the MSCI ACWI Index, its parent index, in USD for the lowest absolute risk (within a given set of constraints). Historically, the index has shown lower beta and volatility characteristics relative to the MSCI ACWI Index.

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