

# Market Overview

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July 2024

**Investment and Insurance Products: ➤ NOT FDIC Insured ➤ NO Bank Guarantee ➤ MAY Lose Value**

# Capital market summary

## as of 6/30/2024

Equity Market	June	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Dow Jones Industrial Average	1.23%	-1.27%	4.79%	16.02%	6.42%	10.33%	11.30%
NASDAQ Composite Index	6.03%	8.47%	18.57%	29.61%	7.78%	18.21%	16.07%
S&P 500 Index	3.59%	4.28%	15.29%	24.56%	10.01%	15.05%	12.86%
Russell 1000 Index	3.31%	3.57%	14.24%	23.88%	8.74%	14.61%	12.51%
Russell 1000 Growth Index	6.74%	8.33%	20.70%	33.48%	11.28%	19.34%	16.33%
Russell 1000 Value Index	-0.94%	-2.17%	6.62%	13.06%	5.52%	9.01%	8.23%
Russell MidCap Index	-0.66%	-3.35%	4.96%	12.88%	2.37%	9.46%	9.04%
Russell MidCap Growth Index	1.67%	-3.21%	5.98%	15.05%	-0.08%	9.93%	10.51%
Russell MidCap Value Index	-1.60%	-3.40%	4.54%	11.98%	3.65%	8.49%	7.60%
Russell 2000 Index	-0.93%	-3.28%	1.73%	10.06%	-2.58%	6.94%	7.00%
Russell 2000 Growth Index	-0.17%	-2.92%	4.44%	9.14%	-4.86%	6.17%	7.39%
Russell 2000 Value Index	-1.69%	-3.64%	-0.85%	10.90%	-0.53%	7.07%	6.23%
Russell 3000 Index	3.10%	3.22%	13.56%	23.13%	8.05%	14.14%	12.15%
MSCI EAFE Index (U.S Dollar)	-1.59%	-0.17%	5.75%	12.09%	3.43%	6.98%	4.84%
MSCI Emerging Markets Index (U.S. Dollar)	4.01%	5.12%	7.68%	12.97%	-4.68%	3.49%	3.18%
Fixed Income Market	June	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. Aggregate Bond Index	0.95%	0.07%	-0.71%	2.63%	-3.02%	-0.23%	1.35%
Bloomberg U.S. Treasury Bills (1-3 Month) Index	0.41%	1.34%	2.68%	5.50%	3.11%	2.17%	1.50%
Bloomberg U.S. Aggregate 5-7 Year Bond Index	0.99%	0.24%	-0.26%	3.47%	-2.23%	0.19%	1.42%
Bloomberg U.S. Intermediate Government/Credit Bond Index	0.80%	0.64%	0.49%	4.19%	-1.18%	0.71%	1.55%
Bloomberg U.S. Government/Credit Bond Index	0.87%	0.05%	-0.68%	2.74%	-3.11%	-0.07%	1.51%
Bloomberg U.S. Municipal Bond Index	1.53%	-0.02%	-0.40%	3.21%	-0.88%	1.16%	2.39%
Bloomberg U.S. Corporate High Yield Bond Index	0.94%	1.09%	2.58%	10.44%	1.64%	3.92%	4.31%
J.P. Morgan GBI Global ex -U.S. (Unhedged)	-1.07%	-3.95%	-8.16%	-4.57%	-10.43%	-5.71%	-2.76%
J.P. Morgan EMBI Global (U.S. Dollar)	0.66%	0.44%	1.84%	8.35%	-2.22%	0.27%	2.35%
Real Assets & Hedge Funds	June	QTD	YTD	1 Year	3 Year	5 Year	10 Year
HFRI Fund Weighted Composite Index	-0.20%	0.50%	4.97%	9.76%	2.86%	6.66%	4.77%
FTSE/EPRA NAREIT Developed Index	0.51%	-2.15%	-3.17%	5.66%	-3.85%	0.27%	2.99%
Bloomberg Commodity Index	-1.54%	2.89%	5.14%	5.00%	5.65%	7.25%	-1.29%
Liquid Allocations	June	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Moderate Income	1.08%	0.64%	2.84%	7.88%	0.01%	3.44%	3.78%
Moderate Growth & Income	1.14%	0.99%	5.37%	11.51%	1.68%	6.52%	6.01%
Moderate Growth	1.21%	1.33%	7.71%	14.67%	2.71%	8.58%	7.42%

Sources: Bloomberg, © 2024 – Morningstar Direct, All Rights Reserved<sup>®</sup>, and Wells Fargo Investment Institute. QTD = quarter-to-date. YTD = year-to-date. HFRI performance for the most recent month is preliminary. Performance results for the Liquid Allocations are calculated based on blended index returns and are for illustrative purposes only. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see slides 11-12 for index definitions and allocation compositions.

# U.S. economic overview

## Economy losing momentum and disinflation resuming

- We believe the U.S. economy's recent loss of momentum will extend through the second half of the year. An unwind in economic activity was apparent from June's unemployment report and purchasing managers' surveys<sup>1</sup> for manufacturing and services activity. Job gains continued to moderate, with nonfarm payrolls increasing by 206,000 in June, more in-line with the pre-pandemic decade average of 194,000, while the unemployment rate unexpectedly rose to 4.1%, the highest level since November 2021. Slowing growth contributed to the steepest decline in May capital goods orders this year. Interest-sensitive housing is another noticeable soft spot, though weekly mortgage applications for home purchases have been supported in recent weeks by sub-7% mortgage rates.<sup>2</sup>

- Gathering signs of consumer weakness have aligned with more downbeat corporate-earnings commentary and guidance. Credit-card delinquency rates increased to a 12-year high,<sup>3</sup> adding to consumer headwinds that include an unusually low savings rate and deteriorating sentiment levels extending beyond lower-income families. Still, key spending drivers should mitigate the slowdown, especially if inflation eases enough to prompt Federal Reserve (Fed) rate cuts later this year and support real (inflation-adjusted) income growth. The 12-month Consumer Price Index (CPI) fell to 3% in June, still above the Fed's 2% target.<sup>4</sup>

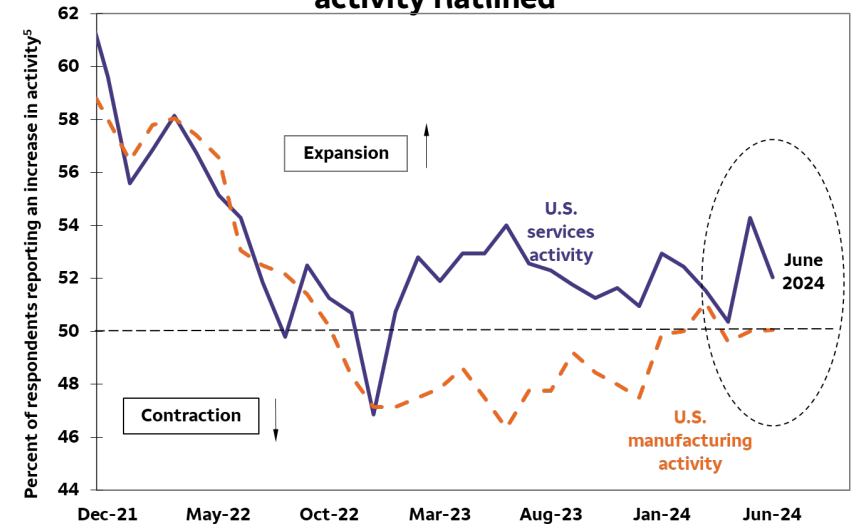
1. According to purchasing managers' index (PMI) readings from S&P Global, Inc. and the Institute for Supply Management (ISM).

2. Measured by the 30-year fixed-rate mortgage.

3. Based on the Federal Reserve's household wealth data through the first quarter of 2024.

4. The core Personal Consumption Expenditures (PCE) deflator is the Federal Reserve's preferred inflation measure.

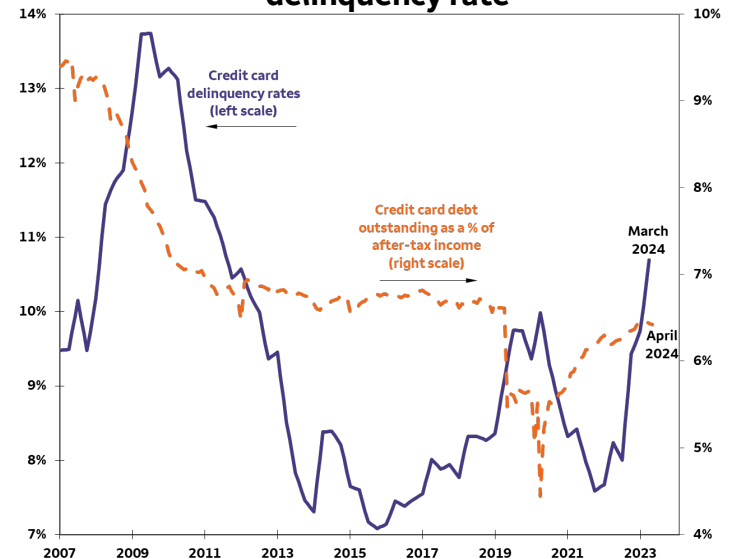
## U.S. service-sector growth slowed in June, manufacturing activity flatlined



5. Calculated as an average of purchasing managers' indexes (PMIs) from S&P Global, Inc. and the Institute for Supply Management (ISM).

Sources: Wells Fargo Investment Institute, S&P Global, Inc., and the Institute for Supply Management (ISM). Data as of July 3, 2024.

## Rising debt, other budget pressures boosted the credit-card delinquency rate



Sources: Wells Fargo Investment Institute and Federal Reserve Board. Data as of June 27, 2024.

# International economic overview

## Upside-down Europe and weaker China

### Europe

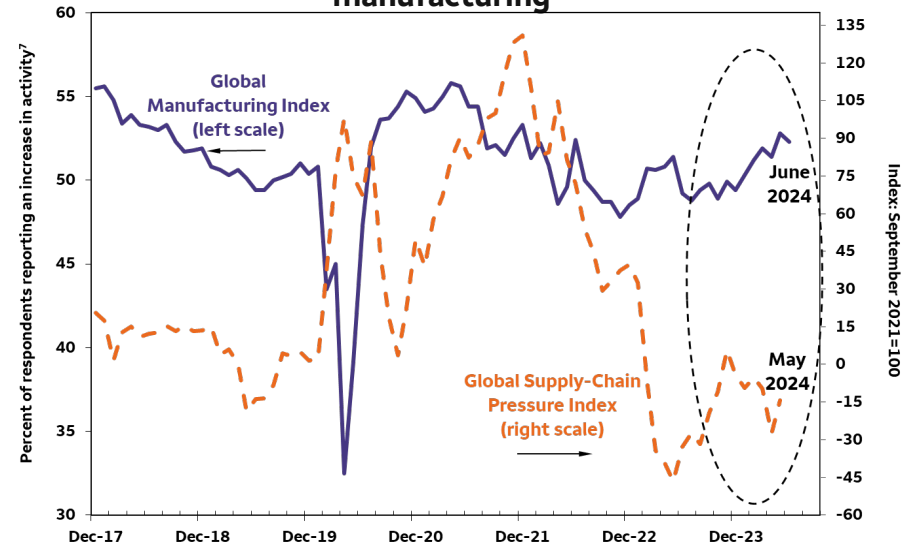
- Europe continues to experience a modest, unbalanced economic recovery, made even more fragile by the threat to bond markets from recent election turmoil highlighting oversized budget deficits. Populism's rise in France, and elsewhere, risks increasing budget deficits and national debt-loads, potentially inciting higher long-term interest rates due to investor pushback. June business surveys showed overall eurozone activity was buoyed by moderate service-sector growth tied to tourism strength in the south. This offset the deepest contraction in manufacturing this year amid tepid global trade and a tilt away from goods spending. Further signs of economic weakness included deteriorating June consumer and business sentiment, softening retail sales, and slowing growth in bank lending through May. Slowing inflation is the most visible support countering growth headwinds, with 12-month eurozone CPI easing to 2.5%<sup>6</sup> in June, boosting consumer purchasing power through real income gains and increasing the likelihood of further interest-rate cuts by the European Central Bank (ECB).

### Asia

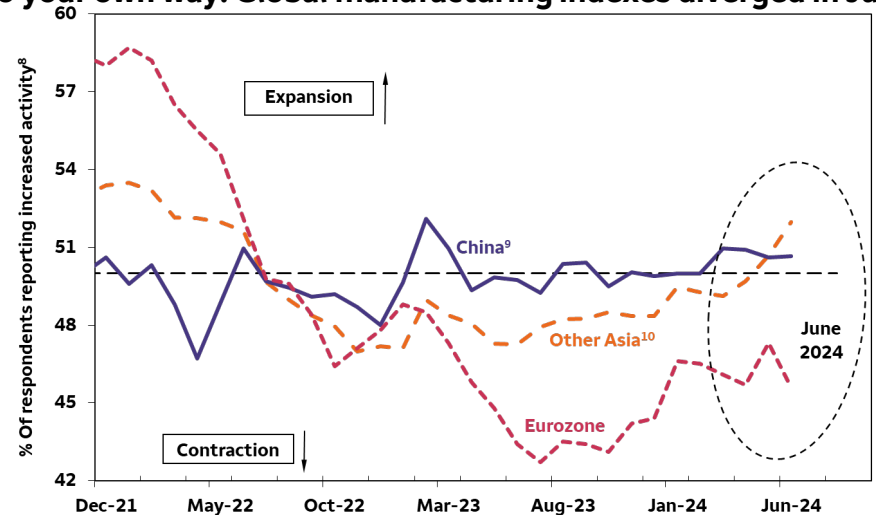
- Asia's manufacturing sector gained momentum in June, led by strengthening activity in tech-oriented Taiwan and South Korea. China was among the laggards, with official and private-sector surveys showing manufacturing and service-industry growth virtually flatlined. Vietnam's manufacturing industry outperformed in Southeast Asia, second only to India as the star performer in broader Asia. In our view, it is no coincidence that both countries have been among the chief beneficiaries (along with Mexico) of supply-chain diversification away from China as protectionist policies and a more fragmented trade system have taken hold. Factory strength in Asia's peripheral economies is even more impressive considering the weak recovery of world trade and China's efforts to exploit its improved competitiveness by boosting its overall market share.

6. Measured by Eurostat Eurozone Euro Area Monetary Union Index of Consumer Prices. All Items year over year, not seasonally adjusted.

## Supply-chain pressures build despite modest growth in global manufacturing



## Go your own way: Global manufacturing indexes diverged in June



# Stock market review and strategy

## Mixed equity performance amid mega-cap outperformance

### U.S. equities

- Equity returns were mixed in June as U.S. large caps (+3.6%) rallied, reaching a new all-time high, while U.S. mid (-0.7%) and small caps (-0.9%) posted negative returns. Significant outperformance of a group of large stocks commonly referred to as the “Magnificent 7”<sup>11</sup> helped drive the disparity. Meanwhile, economic data that generally came in softer than expected dragged on the performance of the more cyclically focused mid- and small-cap indexes.
- The S&P 500 Index sectors most levered to the Magnificent 7 outperformed, with the Information Technology (+9.3%), Consumer Discretionary (+4.9%), and Communications Services (+4.8%) sectors leading. The Materials (-3.0%) and recently downgraded Utilities (-5.5%) sectors lagged.
- Within the Russell Midcap Index, the best performing sectors were Information Technology (+4.0%) and Real Estate (+2.5%), while the Information Technology (+1.6%) and Health Care (+1.3%) sectors led in the Russell 2000 Index (small caps). The Basic Materials sector was the worst performer for both the mid-cap (-5.6%) and small-cap (-7.8%) benchmarks.

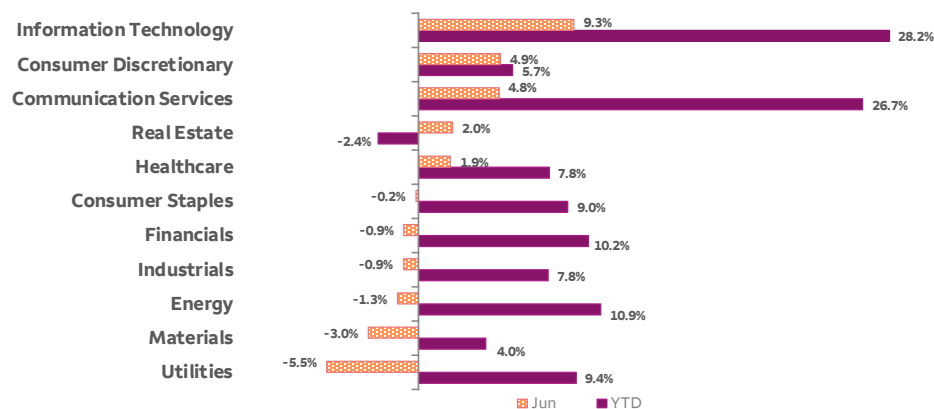
### International equities<sup>12</sup>

- U.S. dollar-denominated developed market (DM) equities (-1.6%) significantly underperformed emerging market (EM) equities (+4.0%) last month. A broadly stronger dollar served as a headwind to both DM and EM returns.
- Regarding June DM performance, the Pacific region (-0.4%), outperformed the Europe region (-2.2%). In the Pacific, Singapore (+0.8%) and Australia (+2.0%) outperformed while Hong Kong (-6.4%) underperformed. In Europe, the Netherlands (+3.1%) and Denmark (+3.1%) outperformed while France (-7.5%) and Ireland (-7.7%) underperformed.
- Within EM, Asia (+5.0%) continued to outperform both the Europe, Middle East, and Africa (+3.9%) and Latin America regions (-6.0%) last month. Strong returns in South Korea (+8.9%), India (+7.0%), and Taiwan (+12.0%) largely drove Asia regional outperformance for June. For the Europe, Middle East, and Africa region, South Africa (+9.3%), Qatar (+7.3%), and the UAE (+5.1%) drove returns. Poor returns in Brazil (-3.6%), Chile (-5.4%), and Mexico (-10.5%) were major detractors to performance in Latin America.

## Stock market total returns\*\* Period ending June 30, 2024

Equity indexes	June	QTD	YTD	1 Year	3 Year*	5 Year*
Global Market	2.3%	3.0%	11.6%	19.9%	5.9%	11.3%
Large Cap	3.6%	4.3%	15.3%	24.6%	10.0%	15.0%
Large Cap Growth	6.7%	8.3%	20.7%	33.5%	11.3%	19.3%
Large Cap Value	-0.9%	-2.2%	6.6%	13.1%	5.5%	9.0%
Mid Cap	-0.7%	-3.3%	5.0%	12.9%	2.4%	9.5%
Small Cap	-0.9%	-3.3%	1.7%	10.1%	-2.6%	6.9%
Developed ex. U.S. (USD)	-1.6%	-0.2%	5.7%	12.1%	3.4%	7.0%
Developed Small Cap (USD)	-3.0%	-1.6%	0.8%	8.3%	-2.9%	4.6%
Emerging Markets (USD)	4.0%	5.1%	7.7%	13.0%	-4.7%	3.5%
Frontier Markets (USD)	0.0%	0.9%	6.2%	12.9%	-2.8%	2.6%

## S&P 500 Index sector returns



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of June 30, 2024. QTD = quarter-to-date. YTD = year-to-date.

\*Annualized returns. \*\*Index returns do not reflect the deduction of fees, expenses or taxes. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see slides 12-13 for index definitions.

11. The Magnificent 7 is made up of Apple, Amazon, Microsoft, Nvidia, Tesla, Alphabet, and Meta Platforms.

12. Regional and country returns are measured using the total U.S. dollar returns of their respective MSCI Index. Please see slide 13 for index definitions.

# Bond market review and strategy

## Slowing economy, stable inflation, Fed cuts expected later in year

### U.S. fixed income

- Inflation remained stable while some economic softening became apparent, which helped U.S. Treasury yields move lower. Investor optimism toward Fed rate cuts was little changed with cuts not expected until later in the year. The U.S. Treasury yield curve remains inverted, and in late May it broke the previous continuous period of inversion record set in the late 1970s (624 days).
- Investor appetite for credit exposure was strong in June. U.S. investment-grade (IG) corporate fixed income (+0.6%) underperformed high-yield (HY) taxable fixed income (+0.9%) as high yield tends to be less interest-rate sensitive. Credit spreads for HY rose slightly during the month, while spreads for IG rose considerably more. Still, both spreads continued to trade below long-term averages. We recommend maintaining a neutral position on IG corporates, particularly for investors seeking income potential; however, we remain unfavorable on HY.
- Municipal bond yields fell across the curve over the month. Overall municipal bond performance was positive (+1.5%) as a result. The municipal yield curve remains inverted (10-year minus 1-year) following the inversion of the U.S. Treasury yield curve with no signs of un-inverting in the near term. We remain favorable on municipal bonds, both essential revenue and general obligation bonds, as they have historically been resilient during periods of economic uncertainty. For investors in higher effective tax brackets, we believe municipal securities are an important part of fixed-income positioning.

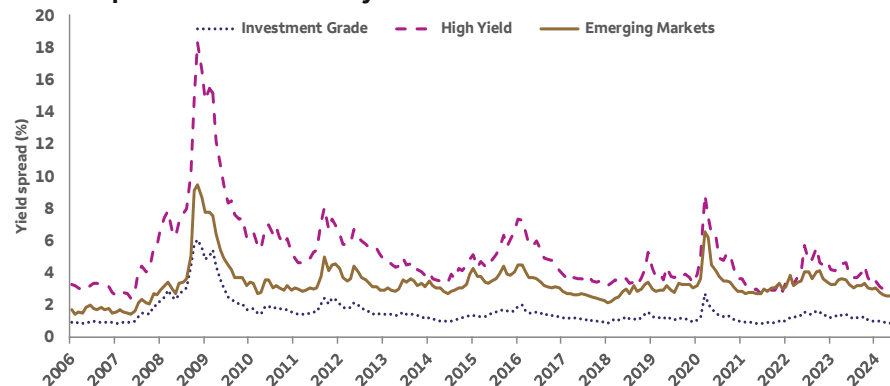
### International fixed income

- Unhedged DM bond returns (-1.1%) fell as the yen and euro struggled against the U.S. dollar in June. Hedged DM bonds<sup>13</sup> rose (0.6%) but struggled in comparison to U.S. bonds. Bonds from Sweden and Australia saw the highest return, while Japanese bonds fell the most in dollar terms and French bonds fell the most in local currency.
- Weak EM foreign exchange rates against the U.S. dollar impacted local-currency-denominated EM bonds<sup>14</sup>, which fell in June. Dollar-denominated EM bonds benefited from falling U.S. yields and ended the month higher by 0.7%. Performance was mixed across EM, with Saudi Arabia and Indonesia building on a strong May and Argentina showing continued volatility with a poor month.

## Fixed Income market total returns\*\* Period ending June 30, 2024

Fixed Income indexes	June	QTD	YTD	1 Year	3 Year*	5 Year*
Global Multiverse	0.2%	-1.0%	-3.0%	1.3%	-5.3%	-1.8%
U.S. Inv Grade Taxable	0.9%	0.1%	-0.7%	2.6%	-3.0%	-0.2%
U.S. Treasury Bills	0.4%	1.3%	2.7%	5.5%	3.1%	2.2%
U.S. Short-Term Taxable	0.6%	0.9%	1.4%	4.9%	0.6%	1.2%
U.S. Inter-Term Taxable	1.0%	0.2%	-0.3%	3.5%	-2.2%	0.2%
U.S Long-Term Taxable	1.2%	-1.7%	-4.1%	-1.9%	-8.7%	-2.4%
U.S. Treasury	1.0%	0.1%	-0.9%	1.5%	-3.3%	-0.7%
U.S. Corporate	0.6%	-0.1%	-0.5%	4.6%	-3.0%	0.6%
U.S. Municipal	1.5%	0.0%	-0.4%	3.2%	-0.9%	1.2%
U.S. TIPS	0.8%	0.8%	0.7%	2.7%	-1.3%	2.1%
U.S. High Yield	0.9%	1.1%	2.6%	10.4%	1.6%	3.9%
Developed ex. U.S. (unhedged)	-1.1%	-3.9%	-8.2%	-4.6%	-10.4%	-5.7%
Emerging Market (USD)	0.7%	0.4%	1.8%	8.4%	-2.2%	0.3%

## Credit spreads to Treasury Securities



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of June 30, 2024. QTD = quarter-to-date. YTD = year-to-date.

\*Annualized returns. \*\*Index returns do not reflect the deduction of fees, expenses or taxes. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see slides 13-14 for index definitions.

13. As measured by the JPMorgan GBI Global ex-U.S. (Hedged) Index.

14. As measured by the JPMorgan GBI-EM Global Composite (Unhedged) Index.

# Real Assets review and strategy

## Potential supply increases and Chinese uncertainty

### Master limited partnerships (MLPs)

- MLPs outperformed the broader market in June, with a +4.5% total return (as measured by the Alerian MLP Index) versus a +3.6% return for the S&P 500 Index.

### Commodities

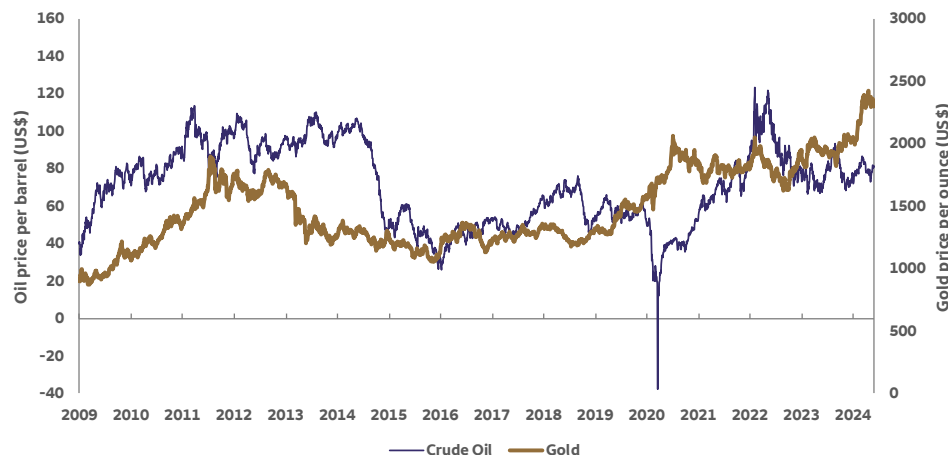
- Energy:** The Bloomberg Commodity Energy Subindex's performance was up 4.1% in June, outperforming the Bloomberg Commodity Total Return Index (BCOMTR). Both West Texas Intermediate and Brent crude prices strengthened by 5.9%. OPEC+ (Organization of the Petroleum Exporting Countries and their allies) stated in a recent announcement that it will unwind a portion of its production cuts starting in October 2024. We believe this slow unwinding will keep global supply growth minimal and prevent a supply glut. OPEC+ still appears committed to supporting oil prices as it stated its ability to reverse its decision depending on market conditions. We remain favorable on energy and suspect that tepid non-OPEC+ supply growth coupled with strong EM demand could help offset the effects of OPEC+'s decision.
- Metals:** Precious metals outperformed the BCOMTR with a -0.8% return in June, but gold and silver prices fell by 0.7% and 4%, respectively. Gold's performance in 2024 has been driven by robust purchases from central banks, consumer demand, and geopolitical tensions. That said, we suspect that gold could be range bound between \$2,300 – \$2,400 this year due to the headwind of a relatively strong U.S. dollar. Industrial metals were down by 5.3% in June, underperforming BCOMTR. Prices appear to be consolidating after an impressive rally earlier in the year, driven by supply constraints and expectations for improvements in China's economy. In our view, though, China's economy still faces a fragile property sector along with weak manufacturing activity, which will likely be a headwind for prices.
- Agriculture:** Agricultural commodity prices were down 5.9% in June, underperforming the BCOMTR, but there was a wide dispersion in individual performance. Sugar was the top performer (+11.0%), while wheat (-18.4%) was the worst. Though some agricultural commodities showed strong performance, we caution that adequate supply growth and an easing of supply-chain disruptions appear to be strong headwinds for prices.

### Real Assets total returns\*\*

Period ending June 30, 2024

REIT/Commodity indexes	June	QTD	YTD	1 Year	3 Year*	5 Year*
Public Real Estate	0.5%	-2.1%	-3.2%	5.7%	-3.8%	0.3%
U.S. REITs	2.2%	-0.9%	-2.2%	5.8%	-1.6%	3.4%
International REITs	-3.0%	-5.4%	-7.1%	3.9%	-9.0%	-3.7%
S&P Goldman Sachs Commodity (GSCI)	1.4%	0.7%	11.1%	15.0%	12.7%	8.3%
Bloomberg Commodity	-1.5%	2.9%	5.1%	5.0%	5.7%	7.2%
Commodities (RICI)	-1.0%	2.1%	7.6%	10.4%	10.5%	10.6%
Global Infrastructure	-2.9%	2.7%	4.0%	7.0%	5.6%	4.3%
MLPs	4.5%	3.4%	17.7%	35.8%	22.7%	12.2%

### Crude oil versus gold



Sources: Bloomberg and Wells Fargo Investment Institute. Data as of June 30, 2024. QTD = quarter-to-date. YTD = year-to-date.

REITs = real estate investment trusts.

\*Annualized returns. \*\*Index returns do not reflect the deduction of fees, expenses or taxes. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see slide 14 for index definitions.

# Alternatives review and strategy

## Equities, rates, and currencies impacted alternatives

### Relative Value

- Relative Value strategies registered a gain of 0.4% for the month, with positive contributions from Structured Credit, Long/Short Credit, and Arbitrage strategies. Elevated security dispersion continued to benefit many Relative Value managers.

### Macro

- Macro strategies retreated 1.6% in June. Systematic strategies accounted for much of the decline, with the largest detractors being short fixed-income and long metals positions, as both experienced modest reversals of longer-term trends. The largest contributors included short positions in agricultural commodities and U.S. and Asian equity markets driven mostly by technology and artificial intelligence related stocks. For the month, Discretionary strategies declined 0.6%.

### Event Driven

- Event Driven registered a decline of 0.1% for June, primarily driven by losses in Activist and Distressed Credit strategies. Activist strategy returns were negative (-2.1%) despite U.S. equity markets continuing their advance. Distressed Credit strategies posted slightly negative results for the month (-0.2%). We continue to expect elevated levels of distressed situations as businesses with overleveraged balance sheets become increasingly stressed under the weight of higher debt-service levels and slower growth.

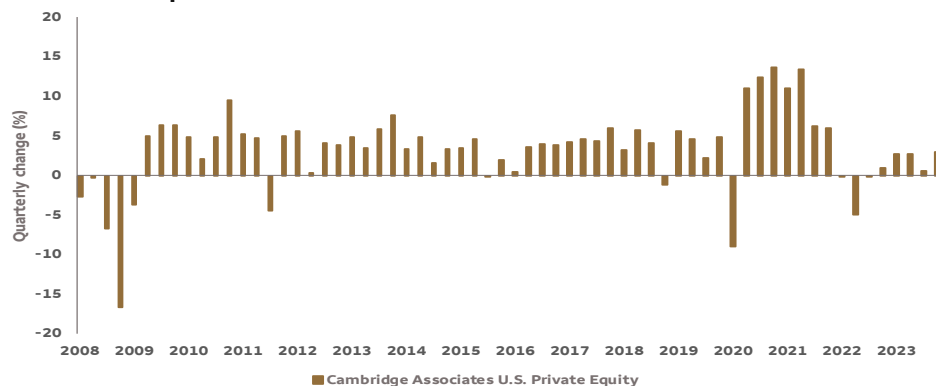
### Equity Hedge

- Equity Hedge strategies posted a 0.3% gain in June yet lagged the MSCI All Country World Index (+2.3%). The performance of Directional Long/Short Equity strategies continued to be driven in part by gains from large- and mega-cap technology stocks. However, the strategies began paring back exposure to Information Technology, Financials, and Real Estate stocks throughout the month, while adding to Energy positions. Equity Market Neutral strategies rose 1.3% during the month, now edging ahead of their directional counterparts on the year. As dispersion among stocks remains elevated and market sentiment grows, we expect the environment for Directional Equity strategies to turn more constructive.

## Alternatives total returns\*\* Period ending June 30, 2024

Alternative indexes	June	QTD	YTD	1 Year	3 Year*	5 Year*
Global Hedge Fund	-0.2%	0.5%	5.0%	9.8%	2.9%	6.7%
Relative Value	0.4%	1.2%	3.8%	8.3%	3.6%	4.6%
Arbitrage	0.1%	0.4%	2.7%	7.2%	2.7%	4.6%
Long/Short Credit	0.5%	1.6%	4.8%	10.2%	2.6%	4.8%
Structure Credit/Asset Backed	0.7%	2.2%	4.6%	9.2%	4.7%	4.3%
Macro	-1.6%	-1.1%	5.1%	5.6%	4.3%	5.6%
Systematic	-1.6%	-1.9%	6.3%	4.9%	4.6%	5.1%
Discretionary	-0.6%	1.6%	3.3%	8.5%	1.5%	5.7%
Event Driven	-0.1%	0.3%	2.7%	10.6%	2.8%	6.2%
Activist	-2.1%	-5.8%	-0.5%	6.6%	-0.1%	6.0%
Distressed Securities	-0.2%	0.9%	3.5%	11.5%	3.4%	6.5%
Merger Arbitrage	0.3%	-0.1%	0.2%	8.2%	3.4%	5.5%
Equity Hedge	0.3%	1.1%	6.3%	12.0%	2.0%	7.8%
Directional Equity	0.2%	0.9%	6.2%	12.0%	1.6%	8.1%
Equity Market Neutral	1.3%	2.9%	7.4%	12.2%	5.5%	4.4%

## Private Capital Index returns



Sources: © 2024 – Morningstar Direct, All Rights Reserved<sup>1</sup>, Cambridge Associates, and Wells Fargo Investment Institute. Data as of June 30, 2024. Cambridge Associates data through December 31, 2023. QTD = quarter-to-date. YTD = year-to-date.

\*Annualized returns. \*\*Index returns do not reflect the deduction of fees, expenses or taxes. Performances for the most recent month are preliminary from HFR. An index is unmanaged and not available for direct investment.

**Past performance is no guarantee of future results.** Please see slides 15-16 for index definitions.



# Disclosures (1 of 2)

Forecasts are not guaranteed and based on certain assumptions and on views of market and economic conditions which are subject to change.

## Asset class risks

**Alternative Investments, such as hedge funds and private capital funds, are not appropriate for all investors.** They are speculative and involve a high degree of risk that is only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

Hedge funds trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods with adverse consequences for the investor. **Arbitrage strategies** expose a fund to the risk that the anticipated arbitrage opportunities will not develop as anticipated, resulting in potentially reduced returns or losses to the fund. **Relative Value** strategies seek to make profits by arbitrage opportunities between two related securities. These arbitrage opportunities might come in the way of pricing discrepancies between two securities or between securities and derivative instruments. **Event Driven** strategies involve investing in opportunities created by significant transactional events, such as spinoffs, mergers and acquisitions, bankruptcy reorganization, recapitalization and share buybacks. Managers who use such strategies may invest in, and might sell short, the securities of companies where the security's price has been, or is expected to be, affected by a distressed situation. **Equity Hedge** strategies maintain positions both long and short in primarily equity and equity derivative securities. Investing in **Distressed companies** is speculative and subject to greater levels of credit, issuer and liquidity risks and the repayment of default obligations contains significant uncertainties such companies may be engaged in restructurings or bankruptcy proceedings. **Macro** strategies base their investment decisions on the anticipated price movement of stock markets, interest rates, foreign exchange, and physical commodities. These price movements result from many factors including forecasted shifts in world economies. Exchange-traded and over-the-counter derivatives are often used to magnify these price movements. The fixed income securities used in the structured credit relative value strategy may include CMBS, RMBS, ABS CLOs and other debt securities. They are subject to security-specific risks in addition to the risks associated with fluctuations in interest rates, credit/default, liquidity and forced deleveraging. **Long/short credit** strategies invest in the global credit markets which may be volatile. The risks associated with this strategy include investments in debt securities and the use of short selling and derivatives.

Private capital investments are complex, speculative investment vehicles that are not appropriate for all investors. The funds use complex trading strategies, including hedging and leveraging through derivatives and short selling and other aggressive investment practices. It is possible to lose your entire investment investing in these funds. Leverage can significantly increase return potential but create greater risk of loss. Derivatives generally have implied leverage which can magnify volatility and may entail other risks such as market, interest rate, credit, counterparty and management risks. Short selling involves leverage and theoretically unlimited loss potential since the market price of securities sold short may continuously increase.

Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. Investments in equity securities are generally more volatile than other types of securities. Small and Mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Growth stocks may be more volatile than other stocks and there is no guarantee growth will be realized. There are no guarantees that value stocks will increase in value or that their intrinsic values will eventually be recognized by the overall market. Both growth and value types of investing tend to shift in and out of favor.

Sector investing can be more volatile than investments that are broadly diversified over numerous sectors of the economy and will increase a portfolio's vulnerability to any single economic, political, or regulatory development affecting the sector. This can result in greater price volatility.

Investments in fixed-income securities are subject to interest rate and credit risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. If sold prior to maturity, fixed income securities are subject to market risk. All fixed income investments may be worth less than their original cost upon redemption or maturity.

U.S. government securities are backed by the full faith and credit of the federal government as to payment of principal and interest. Unlike U.S. government securities, agency securities carry the implicit guarantee of the U.S. government but are not direct obligations. Payment of principal and interest is solely the obligation of the issuer. If sold prior to maturity, both types of debt securities are subject to market risk. Although Treasuries are considered free from credit risk they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate.

# Disclosures (2 of 2)

## **Asset class risks (continued)**

Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes. These bonds are subject to interest rate and credit/default risk. Quality varies widely depending on the specific issuer. Municipal securities may also be subject to the alternative minimum tax and legislative and regulatory risk which is the risk that a change in the tax code could affect the value of taxable or tax-exempt interest income.

Treasury Inflation-Protected Securities (TIPS) are subject to interest rate risk, especially when real interest rates rise. This may cause the underlying value of the bond to fluctuate more than other fixed income securities.

Mortgage- and asset-backed securities are subject to the risks associated with debt securities and to prepayment, extension and call risks. Changes in prepayments may significantly affect yield, average life and expected maturity. Extension risk is the risk that rising interest rates will slow the rate at which mortgages are prepaid. Call risk is the risk that if called prior to maturity, similar yielding investments may not be available for the Fund to purchase. These risks may be heightened for longer maturity and duration securities.

Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging and frontier markets.

Currency risk is the risk that foreign currencies will decline in value relative to that of the U.S. dollar. Exchange rate movement between the U.S. dollar and foreign currencies may cause the value of a portfolio's investments to decline.

Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity. Investing in precious metals involves special risk considerations such as severe price fluctuations and adverse economic and regulatory developments which could materially and adversely affect an investment.

Investing in physical commodities, such as gold, silver, palladium and other precious metals, exposes a portfolio to material risk considerations such as potentially severe price fluctuations over short periods of time and storage costs that exceed the custodial and/or brokerage costs associated with a portfolio's other holdings.

Investment in securities of Master Limited Partnerships (MLPs) involves certain risks which differ from an investment in the securities of a corporation. MLPs may be sensitive to price changes in oil, natural gas, etc., regulatory risk, and rising interest rates. A change in the current tax law regarding MLPs could result in the MLP being treated as a corporation for federal income tax purposes which would reduce the amount of cash flows distributed by the MLP. Other risks include the volatility associated with the use of leverage; volatility of the commodities markets; market risks; supply and demand; natural and man-made catastrophes; competition; liquidity; market price discount from Net Asset Value and other material risks.

There are special risks associated with an investment in real estate, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. Other risks associated with investing in listed REITs include the use of leverage, unexpected reductions in common dividends, increases in property taxes, and the impact to listed REITs from new property development.

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# Index definitions (1 of 6)

**Broad-based indexes are unmanaged and not available for direct investment.**

## **Allocation Compositions (Slide 2)**

**Moderate Income Liquid** is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 60% Bloomberg U.S. Aggregate Bond Index, 4% Bloomberg U.S. Corporate High Yield Bond Index, 5% JPM EMBI Global Index, 16% S&P 500 Index, 5% Russell Midcap Index, 2% Russell 2000 Index, 4% MSCI EAFE Index, 2% Bloomberg Commodity Index. U.S. Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term.

**Moderate Growth & Income Liquid** is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% JPM EMBI Global Index, 24% S&P 500 Index, 10% Russell Midcap Index, 6% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index. U.S. Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term.

**Moderate Growth Liquid** is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 8% Bloomberg U.S. Aggregate Bond Index, 3% Bloomberg U.S. Corporate High Yield Bond Index, 31% S&P 500 Index, 14% Russell Midcap Index, 10% Russell 2000 Index, 15% MSCI EAFE Index, 12% MSCI Emerging Markets Index, 5% Bloomberg Commodity Index. U.S. Investment Grade Fixed Income encompasses the allocations to Short Term, Intermediate Term, and Long Term.

## **Equities (Slide 2)**

**Dow Jones Industrial Average** is an unweighted index of 30 "blue-chip" industrial U.S. stocks.

**NASDAQ Composite Index** measures the market value of all domestic and foreign common stocks, representing a wide array of more than 5,000 companies.

**S&P 500 Index** is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the US stock market.

**Russell 1000 Index** measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the Russell 3000 Index.

**Russell 1000 Growth Index** measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

**Russell 1000 Value Index** measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

**Russell MidCap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index.

**Russell MidCap Growth Index** measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values.

**Russell MidCap Value Index** measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values.

**Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

**Russell 2000 Growth Index** measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

**Russell 2000 Value Index** measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

**Russell 3000 Index** measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

**MSCI EAFE Index (U.S. Dollar)** is designed to represent the performance of large and mid-cap securities across 21 developed markets, including countries in Europe, Australasia and the Far East, excluding the U.S. and Canada.

**MSCI Emerging Market Index (U.S. Dollar)** is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

## **Fixed income (Slide 2)**

**Bloomberg U.S. Aggregate Bond Index** is a broad-based measure of the investment grade, US dollar-denominated, fixed-rate taxable bond market.

**Bloomberg U.S. Treasury Bills (1–3 Month) Index** includes public obligations of the U.S. Treasury with a remaining maturity of one year or more.

**Bloomberg U.S. Aggregate 5–7 Year Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 5-7 years.

**Bloomberg U.S. Intermediate Government/Credit Bond Index** is the intermediate component of the Bloomberg U.S. Government/Credit Index which is generally representative of government and investment grade corporate debt securities.

**Bloomberg U.S. Government/Credit Bond Index** is a market-weighted index generally representative of intermediate and long-term government and investment grade corporate debt securities having maturities of greater than one year.

# Index definitions (2 of 6)

## Fixed income (Slide 2)

**Bloomberg U.S. Municipal Bond Index** is an unmanaged index composed of long-term tax-exempt bonds with a minimum credit rating of Baa.

**Bloomberg U.S. Corporate High Yield Bond Index** covers the universe of fixed-rate, noninvestment-grade debt.

**J.P. Morgan GBI (Global Bond Index) Global ex -U.S. (Unhedged)** in USD is a representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

**J.P. Morgan EMBI (Emerging Market Bond Index) Global (U.S. Dollar)** currently covers 27 emerging market countries. Included in the EMBI Global are U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

## Real assets and hedge funds (Slide 2)

**HFRI Fund Weighted Composite Index** is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies; including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage, and relative value arbitrage. The strategies are asset weighted based on the distribution of assets in the hedge fund industry.

**FTSE/EPRA NAREIT Developed Index** is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.

**Bloomberg Commodity Index** is comprised of 23 exchange-traded futures on physical commodities weighted to account for economic significance and market liquidity.

## Economic indexes (Slides 3-4)

**Consumer Price Index (CPI)** produces monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services.

**Eurostat Eurozone Monetary Union Index of Consumer Prices (MUICP)** is an aggregate measure of consumer inflation for all countries within the eurozone.

**Global Supply Chain Pressure Index** integrates transportation cost data and manufacturing indicators to provide a gauge of global supply chain conditions.

**JPMorgan Global Manufacturing PMI®** is produced by S&P Global in association ISM and IFPSM. Global manufacturing PMI indices are compiled by S&P Global from responses to monthly questionnaires sent to purchasing managers in survey panels in over 40 countries (see table, right for full coverage), totalling around 13,500 companies. These countries account for 98% of global manufacturing value added.

**Personal Consumption Expenditure (PCE)** measure is the component statistic for consumption in gross domestic product (GDP). It is essentially a measure of goods and services targeted towards individuals and consumed by individuals.

**University of Michigan Consumer Sentiment Index** is published monthly by the University of Michigan. Each month at least 500 telephone interviews are conducted throughout the U.S. The Index of Consumer Sentiment is developed from these interviews.

**Producer Price Index (PPI)** is a family of indexes that measures the average change in selling prices received by domestic producers of goods and services over time.

## Equities (Slide 5)

**Global Market Equity: MSCI AC World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed and 23 emerging markets.

**Large Cap Equity: S&P 500 Index** is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the US stock market. Returns assume reinvestment of dividends and capital gain distributions.

**Large Cap Growth Equity: Russell 1000 Growth Index** measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. **Russell 1000 Index** measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the Russell 3000 Index. The **Russell 3000 Index** measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

**Large Cap Value Equity: Russell 1000 Value Index** measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

**Mid Cap Equity: Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index.

**Small Cap Equity: Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

**Developed Market ex. U.S. Equity: MSCI EAFE Index** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of 21 developed markets, excluding the US & Canada.

# Index definitions (3 of 6)

## Equities (Slide 5)

**Developed Small Cap Equities:** The **MSCI EAFE Small Cap Index** is an equity index which captures small cap representation across Developed Markets countries around the world, excluding the US and Canada. With 2,282 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country.

**Emerging Markets:** **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance of 23 emerging market countries.

**Frontier Market Equity:** **MSCI Frontier Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance of frontier markets.

**MSCI Australia Index** is designed to measure the performance of the large and mid cap segments of the Australia market.

**MSCI Brazil Index** is designed to measure the performance of the large and mid-cap segments of the Brazilian market.

**MSCI Chile Index** is designed to measure the performance of the large and mid cap segments of the Chilean market.

**MSCI Emerging Markets (EM) Asia Index** captures large and mid cap representation across 8 Emerging Markets countries.

**MSCI Emerging Markets EMEA Index** captures large and mid cap representation across 11 Emerging Markets (EM) countries\* in Europe, the Middle East and Africa (EMEA).

**MSCI Emerging Markets (EM) Latin America Index** captures large and mid cap representation across 5 Emerging Markets (EM) countries\* in Latin America.

**MSCI Europe Index** captures large and mid cap representation across 15 Developed Markets (DM) countries in Europe.

**MSCI France Index** is designed to measure the performance of the large and mid cap segments of the French market.

**MSCI Hong Kong Index** is designed to measure the performance of the large and mid-cap segments of the Hong Kong market.

**MSCI India Index** is designed to measure the performance of the large and mid cap segments of the Indian market.

**MSCI Ireland Index** is designed to measure the performance of the large and mid cap segments of the Irish equity market.

**MSCI Korea Index** is designed to measure the performance of the large and mid cap segments of the South Korean market.

**MSCI Mexico Index** is designed to measure the performance of the large and mid cap segments of the Mexican market.

**MSCI Pacific Index** captures large and mid cap representation across 5 Developed Markets (DM) countries in the Pacific region.

**MSCI Qatar Index** is designed to measure the performance of the large and mid cap segments of the Qatari market.

**MSCI Singapore Index** is designed to measure the performance of the large and mid cap segments of the Singapore market.

**MSCI South Africa Index** is designed to measure the performance of the large and mid cap segments of the South African market.

**MSCI Taiwan Index** is designed to measure the performance of the large and mid cap segments of the Taiwan market.

**S&P 500 Communication Services Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® communication services sector.

**S&P 500 Consumer Discretionary Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® consumer discretionary sector.

**S&P 500 Consumer Staples Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® consumer staples sector.

**S&P 500 Energy Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® energy sector.

**S&P 500 Financials Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® financials sector.

**S&P 500 Health Care Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® health care sector.

**S&P 500 Industrials Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® industrials sector.

**S&P 500 Information Technology Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® information technology sector.

**S&P 500 Materials Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® materials sector.

**S&P 500 Real Estate Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® real estate sector.

**S&P 500 Utilities Index** comprises those companies included in the S&P 500 that are classified as members of the GICS utilities sector.

**S&P 500 Equal Weight Index** is the equal-weight version of the widely-used S&P 500. The index includes the same constituents as the capitalization weighted S&P 500, but each company in the S&P 500 EWI is allocated a fixed weight - or 0.2% of the index total at each quarterly rebalance.

## Fixed Income (Slide 6)

**Global Multiverse Fixed Income: Bloomberg Multiverse Index** provides a broad-based measure of the global fixed-income bond market. The index represents the union of the Global Aggregate Index and the Global High-Yield Index and captures investment grade and high yield securities in all eligible currencies.

**U.S. Inv Grade Taxable Fixed Income: Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg Capital U.S. Government/Credit Index and the Bloomberg Capital U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

# Index definitions (4 of 6)

## **Fixed Income (Slide 6)**

**U.S. Treasury Bills Fixed Income: Bloomberg U.S. Treasury Bills Index** includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

**Short, Intermediate and Long Term Fixed Income: Bloomberg U.S. Aggregate Bond Index** is made up of the Bloomberg U.S. Government/Corporate Bond Index, Mortgage-Backed Securities Index, and Asset-Backed Securities Index, including securities that are of investment grade quality or better, have at least one year to maturity, and have an outstanding par value of at least \$100 million.

**U.S. Treasury Fixed Income: Bloomberg U.S. Treasury Index** includes public obligations of the U.S. Treasury with a remaining maturity of one year or more.

**U.S. Corporate Fixed Income: Bloomberg U.S. Corporate Bond Index** includes publicly issued U.S. corporate and Yankee debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

**U.S. Municipal Fixed Income: Bloomberg U.S. Municipal Bond Index** represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least \$3 million, and a remaining maturity of at least one year. The Index excludes taxable municipal bonds, bonds with floating rates, derivatives, and certificates of participation.

**U.S. TIPS Fixed Income: Bloomberg Treasury Inflation Protected Securities (TIPS) Index** includes all publicly issued, investment-grade U.S. TIPS with an outstanding face value of more than \$250 million and that have at least one year to maturity.

**U.S. High Yield Fixed Income: Bloomberg U.S. High Yield Bond Index** is an unmanaged index that tracks the performance of below investment grade U.S. dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

**Developed ex. U.S. Fixed Income: JPMorgan GBI Global ex-U.S. (Unhedged)** in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

**Emerging Market Fixed Income: JP Morgan Emerging Markets Bond Index Global (EMBI Global)**, which currently covers 27 emerging market countries. Included in the EMBI Global are U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

**JPMorgan Non-U.S. Global Government Bond Index (Hedged)** is a representative of the total return performance, on a hedged basis, of major non-U.S. bond markets. It is calculated in U.S. dollars.

**J.P. Morgan GBI Emerging Markets Global Diversified (Local Currency) (USD Unhedged)** tracks the performance of bonds issued by emerging market governments and denominated in the local currency of the issuer.

## **Real Assets (Slide 7)**

**Public Real Estate: FTSE/EPRA NAREIT Developed Index** is designed to track the performance of listed real estate companies and REITs worldwide.

**U.S. REITs: FTSE NAREIT U.S. All Equity REITs Index** is designed to track the performance of REITs representing equity interests in (as opposed to mortgages) on properties. It represents all tax-qualified REITs with more than 50 percent of total assets in qualifying real estate assets, other than mortgages secured by real property that also meet minimum size and liquidity criteria.

**International REITs: FTSE EPRA/NAREIT Developed ex U.S. Index** is designed to track the performance of listed real estate companies in developed countries worldwide other than the U.S.

**S&P Goldman Sachs Commodity Index (GSCI)** is a composite index of commodity sector returns representing unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities. The index includes futures contracts on 24 physical commodities of which Energy represents nearly 70%.

**Bloomberg Commodity Index** is comprised of 23 exchange-traded futures on physical commodities weighted to account for economic significance and market liquidity.

**Bloomberg Commodity Energy Subindex** is a commodity group subindex of the Bloomberg CTR. The index is composed of futures contracts on crude oil, heating oil, unleaded gasoline and natural gas. It reflects the return on fully collateralized futures positions and is quoted in USD.

**Bloomberg Precious Metals Subindex** is a commodity group subindex of the Bloomberg CTR. It is composed of futures contracts on gold and silver. It reflects the return on underlying commodity future price movements only and is quoted in USD.

**Commodities (RICI): The Rogers International Commodity Index** is a U.S. dollar based index representing the value of a basket of commodities consumed in the global economy.

Representing futures contracts on 37 physical commodities, it is designed to track prices of raw materials not just in the U.S. but around the world.

**Global Infrastructure: S&P Global Infrastructure Index** provides liquid and tradable exposure to 75 companies from around the world that represent the listed infrastructure universe. To create diversified exposure, the index includes three distinct infrastructure clusters: utilities, transportation and energy.

**MLPs: Alerian MLP Index** is the leading gauge of energy infrastructure Master Limited Partnerships (MLPs). The capped, float-adjusted, capitalization-weighted index, whose constituents earn the majority of their cash flow from midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX).

**Bloomberg Commodity Total Return Index** reflects the returns that are potentially available through an unleveraged investment in the futures contracts on 19 physical commodities comprising the Index plus the rate of interest that could be earned on cash collateral invested in specified Treasury Bills. The Index is a rolling index rebalancing annually.

**Bloomberg Agriculture Subindex Total Return Index** reflects the returns of an index composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar, and wheat.

**Bloomberg Energy Subindex Total Return Index** reflects the returns of an index composed of futures contracts on crude oil, heating oil, unleaded gasoline, and natural gas.

**Bloomberg Industrial Metals Subindex Total Return Index** reflects the returns of an index composed of longer-dated future contracts on aluminum, copper, nickel, and zinc.

**Bloomberg Precious Metals Subindex Total Return Index** reflects the returns that are potentially available through an unleveraged investment in the futures contracts on precious metals commodities.

# Index definitions (5 of 6)

## **Alternative Assets (Slide 8)**

**Global Hedge Funds: HFRI Fund Weighted Composite Index** is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net-of-all-fees performance in U.S. dollars and have a minimum of \$50 million under management or a 12-month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.

**Relative Value: HFRI Relative Value Index:** maintains positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative or other security types. Fixed income strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

**Arbitrage: HFRI RV: Multi-Strategy Index:** multi-strategies employ an investment thesis predicated on realization of a spread between related yield instruments in which one or multiple components of the spread contains a fixed income, derivative, equity, real estate, MLP or combination of these or other instruments. Strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager.

**Long/Short Credit: HFRI Relative Value Fixed Income—Corporate Index.** Includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a corporate fixed-income instrument. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple corporate bonds or between a corporate and risk free government bond. They typically involve arbitrage positions with little or no net credit market exposure, but are predicated on specific, anticipated idiosyncratic developments.

**Structured Credit/Asset Backed: HFRI Relative Value Fixed Income-Asset Backed Index** includes strategies predicated on realization of a spread between related instruments in which one or multiple components of the spread is a fixed-income instrument backed by physical collateral or other financial obligations (loans, credit cards) other than those of a specific corporation. Strategies are designed to isolate attractive opportunities between a variety of fixed income instruments specifically securitized by collateral commitments, which frequently include loans, pools and portfolios of loans, receivables, real estate, machinery or other tangible financial commitments. Investment thesis may be predicated on an attractive spread given the nature and quality of the collateral, the liquidity characteristics of the underlying instruments and on issuance and trends in collateralized fixed-income instruments, broadly speaking. In many cases, investment managers hedge, limit, or offset interest-rate exposure in the interest of isolating the risk of the position to strictly the disparity between the yield of the instrument and that of the lower-risk instruments.

**Macro: HFRI Macro Index:** Investment Managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches and long and short term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments, rather than realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposed to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

**Systematic Macro: HFRI Macro Systematic Diversified Index:** Diversified strategies employing mathematical, algorithmic and technical models, with little or no influence of individuals over the portfolio positioning. Strategies are designed to identify opportunities in markets exhibiting trending or momentum characteristics across individual instruments or asset classes. Strategies typically employ quantitative processes which focus on statistically robust or technical patterns in the return series of the asset, and they typically focus on highly liquid instruments and maintain shorter holding periods than either discretionary or mean-reverting strategies. Although some strategies seek to employ counter-trend models, strategies benefit most from an environment characterized by persistent, discernible trending behavior. Typically have no greater than 35 percent of portfolio in either dedicated currency or commodity exposures over a given market cycle.

**Discretionary Macro: HFRI Macro Discretionary Thematic Index:** Strategies primarily rely on the evaluation of market data, relationships and influences, as interpreted by individuals who make decisions on portfolio positions; strategies employ an investment process most heavily influenced by top-down analysis of macroeconomic variables. Investment Managers may trade actively in developed and emerging markets, focusing on both absolute and relative levels on equity markets, interest rates/fixed income markets, currency and commodity markets; they frequently employ spread trades to isolate a differential between instrument identified by the Investment Manager as being inconsistent with expected value. Portfolio positions typically are predicated on the evolution of investment themes the Manager expects to develop over a relevant time frame, which in many cases contain contrarian or volatility-focused components.

# Index definitions (6 of 6)

## **Alternative Assets (Slide 8)**

**Event Driven: HFRI Event Driven Index:** Investment Managers who maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including but not limited to mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Security types can range from most senior in the capital structure to most junior or subordinated, and frequently involve additional derivative securities. Event Driven exposure includes a combination of sensitivities to equity markets, credit markets and idiosyncratic, company specific developments. Investment theses are typically predicated on fundamental characteristics (as opposed to quantitative), with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

**Activist: HFRI Event Driven Activist Index:** Strategies may obtain or attempt to obtain representation on the company's board of directors in an effort to impact the firm's policies or strategic direction and in some cases may advocate activities such as division or asset sales, partial or complete corporate divestiture, dividends or share buybacks, and changes in management. Strategies employ an investment process primarily focused on opportunities in equity and equity-related instruments of companies that are currently or prospectively engaged in a corporate transaction, security issuance/repurchase, asset sales, division spin-off or other catalyst-oriented situation. These involve both announced transactions and situations in which no formal announcement is expected to occur. Activist strategies would expect to have greater than 50 percent of the portfolio in activist positions, as described.

**Distressed Credit: HFRI Event Driven Distressed/Restructuring Index:** Strategies focus on corporate fixed-income instruments, primarily corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceedings or financial-market perception of near-term proceedings. Managers are typically actively involved with the management of these companies; they are frequently involved on creditors' committees in negotiating the exchange of securities for alternative obligations, either swaps of debt, equity or hybrid securities. Managers employ fundamental credit processes focused on valuation and asset coverage of securities of distressed firms; in most cases portfolio exposures are concentrated in instruments that are publicly traded, in some cases actively and in others under reduced liquidity but in general for which a reasonable public market exists. Strategies employ primarily debt (greater than 60 percent) but also may maintain related equity exposure.

**Merger Arbitrage: HFRI Event Driven Merger Arbitrage Index:** Strategies primarily focus on opportunities in equity and equity-related instruments of companies that are currently engaged in a corporate transaction. Merger Arbitrage involves primarily announced transactions, typically with limited or no exposure to situations in which no formal announcement is expected to occur. Opportunities are frequently presented in cross-border, collared, and international transactions that incorporate multiple geographic regulatory institutions, typically with minimal exposure to corporate credits. Strategies typically have over 75 percent of positions in announced transactions over a given market cycle.

**Equity Hedge: HFRI Equity Hedge (Total) Index:** Investment Managers who maintain positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. EH managers would typically maintain at least 50 percent exposure to, and may in some cases be entirely invested in, equities, both long and short.

**Directional Equity: HFRX Equity Hedge Multi-Strategy Index:** Managers maintain positions both long and short in primarily equity and equity-derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage, holding period, concentrations of market capitalizations, and valuation ranges of typical portfolios. Managers typically do not maintain more than 50 percent exposure to any one Equity Hedge sub-strategy.

**Equity Market Neutral: HFRI Equity Hedge Equity Market Neutral Index:** Strategies employ sophisticated quantitative techniques to analyze price data to ascertain information about future price movement and relationships between securities. These can include both Factor-based and Statistical Arbitrage/Trading strategies. Factor-based investment strategies include strategies predicated on the systematic analysis of common relationships between securities. In many cases, portfolios are constructed to be neutral to one or multiple variables, such as broader equity markets in dollar or beta terms, and leverage is frequently employed to enhance the return profile of the positions identified. Statistical Arbitrage/Trading strategies consist of strategies predicated on exploiting pricing anomalies which may occur as a function of expected mean reversion inherent in security prices; high-frequency techniques may be employed; trading strategies may also be based on technical analysis or designed opportunistically to exploit new information that the investment manager believes has not been fully, completely, or accurately discounted into current security prices. Strategies typically maintain characteristic net equity market exposure no greater than 10 percent long or short.

The **Cambridge Associates LLC U.S. Private Equity Index**® uses a horizon calculation based on data compiled from more than 1,400 institutional-quality buyout, growth equity, private equity energy, and subordinated capital funds formed between 1986 and 2021. The funds included in the index report their performance voluntarily and therefore the index may reflect a bias towards funds with records of success. Funds report unaudited quarterly data to Cambridge Associates when calculating the index. The index is not transparent and cannot be independently verified because Cambridge Associates does not identify the funds included in the index. Because Cambridge Associates recalculates the index each time a new fund is added, the historical performance of the index is not fixed, can't be replicated and will differ over time from the day presented. The returns shown are net of fees, expenses and carried interest. Index returns do not represent fund performance.

**MSCI All Country World Index** (MSCI ACWI) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed and 26 emerging markets.

*Note: HFRI Indices have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown). The HFRI Indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.*



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